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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 fees schedule; (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/

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Photo Credit: Cover Photo by University Photographic Services
## Undergraduate Programs

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### Abbreviations:

- **AA** Associate of Arts  
- **AAS** Associate of Applied Science  
- **AASBT** Associate of Applied Science in Business Technology  
- **AS** Associate of Science  
- **ATC** Advanced Technical Certificate  
- **BA** Bachelor of Arts  
- **BAS** Bachelor of Applied Science  
- **BAT** Bachelor of Applied Technology  
- **BBA** Bachelor of Business Administration  
- **BFA** Bachelor of Fine Arts  
- **BM** Bachelor of Music  
- **BME** Bachelor of Music Education  
- **BS** Bachelor of Science  
- **BSHS** Bachelor of Science in Health Science  
- **BS/MS** Combined Bachelor of Science and Master of Science  
- **BUS** Bachelor of University Studies  
- **C** Courses only; no degree, major or minor  
- **Ce** Certificate (different from PSTC or TC)  
- **E** Emphasis  
- **Ee** Elementary Teaching Emphasis  
- **M** Minor  
- **O** Option  
- **P** Pre-Professional Program  
- **PharmD** Doctor of Pharmacy  
- **PharmD MBA** Combined Doctor of Pharmacy and Master of Business Administration  
- **PSTC** Post-Secondary Technical Certificate  
- **SS** Secondary Single Subject Teaching Major  
- **T** Track  
- **TC** Technical Certificate  
- **TM** Secondary Teaching Major  
- **Tm** Secondary Teaching Minor  

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Also Offered in the College of Technology:
- Southeast Idaho Region 5 Tech Prep
- Workforce Training
Subject Abbreviations
Shown below is an alphabetical list of all subjects taught at the undergraduate level at Idaho State University; look here to learn what program or department teaches each course. If the subject name is different from the department name, both subject and department are shown; otherwise the bold text is the name of both the subject and the department. The College of Technology has departments, but a student interacts with the Student Services Office instead of with the department office, so departments are not shown in that college.

ACCT - Accounting; College of Business
ACRR - Auto Collision Repair and Re-finishing; College of Technology
ADRN - Associate Degree Registered Nursing; College of Technology
AIRM - Aircraft Maintenance; College of Technology
ANTH - Anthropology; College of Arts and Letters
ARBC - Arabic, Department of Languages and Literatures; College of Arts and Letters
ART - Art, Department of Art; College of Arts and Letters
AUTM - Automotive Technology; College of Technology
BA - Business Administration; College of Business
BED - Business Education, Department of Educational Foundations; College of Education
BIOL - Biological Sciences, College of Science and Engineering
BT - Business Technology; College of Technology
CADD - Computer-Aided Design Drafting; College of Technology
CE - Civil Engineering, Department of Civil and Environmental Engineering; College of Science and Engineering
CET - Civil Engineering Technology; College of Technology
CFS - Child and Family Studies, Department of Educational Foundations; College of Education
CHEM - Chemistry, College of Science and Engineering
CHLD - Early Childhood Care and Education; College of Technology
CHNS - Chinese, Department of Languages and Literatures; College of Arts and Letters
CIS - Computer Information Systems, College of Business
CMLT - Comparative Literature, Languages and Literatures; College of Arts and Letters
COMM - Communication (Speech), Department of Communication and Rhetorical Studies; College of Arts and Letters
COSM - Cosmetology; College of Technology
COUN - Counseling, Kasiska School of Health Professions; Division of Health Sciences
CS - Computer Science; College of Science and Engineering
CSED - Communication Sciences & Disorders; Division of Health Sciences
CUAR - Culinary Arts; College of Technology
DAAC - Dance Activity Courses; College of Arts and Letters
DANC - Dance, College of Arts and Letters
DENT - Dental Hygiene, Kasiska School of Health Professions; Division of Health Sciences
DESL - Diesel/On-Site Power Generation Technology; College of Technology
DHS - Division of Health Sciences
EDUC - Education, Department of Educational Foundations; College of Education
EE - Electrical Engineering, Department of Electrical Engineering; College of Science and Engineering
EMGT - Emergency Management; College of Technology
ENGL - English (writing or literature); College of Arts and Letters
ENGR - Engineering (generic Engineering courses); College of Science and Engineering
ENVE - Environmental Engineering, Department of Civil and Environmental Engineering; College of Science and Engineering
ESET - Energy Systems Engineering Technology (several separate programs); College of Technology
FIN - Finance; College of Business
FREN - French, Department of Languages and Literatures; College of Arts and Letters
FSA - Fire Services Administration; College of Technology
GART - Graphic Arts/Printing Technology; College of Technology
GEMT - Geomatics Technology; College of Technology
GEOL - Geosciences; College of Science and Engineering
GERM - German, Department of Languages and Literatures; College of Arts and Letters
HCA - Health Care Administration, Kasiska School of Health Professions; Division of Health Sciences
HE - Health Education and Promotion, Kasiska School of Health Professions; Division of Health Sciences
HIST - History; College of Arts and Letters
HIT - Health Information Technology; College of Technology
HO - Health Occupations; College of Technology
HONS - Honors; University Honors Program
HPHY - Health Physics, Department of Nuclear Engineering and Health Physics; College of Science and Engineering
HRD - Human Resource Training and Development; College of Technology
IC - Industrial Controls, Instrumentation and Automation Engineering Technology; College of Technology
IDEP - Idaho Dental Education Program; Department of Dental Sciences, Division of Health Sciences
INST - Instrumentation, Instrumentation and Automation Engineering Technology; College of Technology
IS - International Studies, Department of Political Science; College of Arts and Letters
ITS - Information Technology Systems; College of Technology
JAPN - Japanese, Department of Languages and Literatures; College of Arts and Letters
LANG - Language, Department of Languages and Literatures; College of Arts and Letters
LATN - Latin, Department of Languages and Literatures; College of Arts and Letters
LAWE - Law Enforcement, College of Technology
LEAD - Leadership Studies, Department of Communication and Rhetorical Studies; College of Arts and Letters
MA - Medical Assisting, College of Technology
MACH - (stands for Machining Technology), Computerized Machining Technology, College of Technology
MATH - Mathematics, College of Science and Engineering
MC - Mass Communication, James E. Rogers Department of Mass Communication; College of Arts and Letters
ME - Mechanical Engineering, College of Science and Engineering
MGT - Management, College of Business
MKTG - Marketing, College of Business
MLS - Medical Laboratory Science, Division of Health Sciences
MSL - Military Science and Leadership (U.S. Army R.O.T.C.), College of Arts and Letters
MSTH - Massage Therapy, College of Technology
MUSA - Applied Music (music lessons), School of Performing Arts; College of Arts and Letters
MUSC - Music, School of Performing Arts; College of Arts and Letters
MUSP - Music Performance, School of Performing Arts; College of Arts and Letters
MUSE - Museology, Idaho Museum of Natural History
NE - Nuclear Engineering, Department of Nuclear Engineering and Health Physics; College of Science and Engineering
NDT - Dietetics (stands for Nutrition and Dietetics), Kasiska School of Health Professions; Division of Health Sciences
NURS - Nursing, Division of Health Sciences
PARA - Paralegal Studies, College of Technology
PARM - Paramedic Science, Kasiska School of Health Professions; Division of Health Sciences
PAS - Physician Assistant Studies, Division of Health Sciences
PDNT - Pharm.D. Non-Traditional, Division of Health Sciences
PE - Physical Education, Sport Science and Physical Education; College of Education
PEAC - Physical Education Activity Courses, Sport Science and Physical Education; College of Education
PHAR - Pharmacy, Division of Health Sciences
PHIL - Philosophy, Department of English and Philosophy; College of Arts and Letters
PHYS - Physics, College of Science and Engineering
PNUR - Practical Nursing, College of Technology
POLS - Political Science, College of Arts and Letters
PPRA - Pharmacy Practice, Pharmacy Practice and Administrative Sciences; Division of Health Sciences
PSCI - Biomedical and Pharmaceutical Sciences, Division of Health Sciences
PSYC - Psychology, College of Arts and Letters
PTA - Physical Therapist Assistant, College of Technology
PTOT - Physical Therapy and Occupational Therapy, Division of Health Sciences
RESP - Respiratory Therapy, College of Technology
RS - Radiographic Science, Kasiska School of Health Professions; Division of Health Sciences
RUSS - Russian, Department of Languages and Literatures; College of Arts and Letters
SHOS - Shoshoni, Department of Languages and Literatures; College of Arts and Letters
SOC - Sociology, Department of Sociology, Social Work, and Criminal Justice; College of Arts and Letters
SOWK - Social Work, Department of Sociology, Social Work, and Criminal Justice; College of Arts and Letters
SPAN - Spanish, Department of Languages and Literatures; College of Arts and Letters
SPED - Special Education, School Psychology, Literacy, and Special Education; College of Education
TGE - Technical General Education, College of Technology
THEA - Theatre, School of Performing Arts; College of Arts and Letters
WELD - Welding, College of Technology
WS - Women Studies, College of Arts and Letters
About The 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/strategicplan/index.shtml.

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, College of Technology, 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, and Doctor of Pharmacy. 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.

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 Intermountain region. It benefits the economic health, business development, environment, and culture in the communities it serves.

Goals

1) Achieve academic excellence in undergraduate, graduate, professional, and technical education.

1: Enhance program excellence through an effective student mix and the maintenance of a strong and balanced student enrollment.

2: Recruit and retain a faculty that sustains a high quality learning environment through effective teaching, productive scholarship, and committed institutional and public service.

3: Provide an effective and efficient learning environment that serves students of varied ages, abilities, needs, and backgrounds, through the integration of academic, cocurricular, and extracurricular programming.

4: Provide library services that enhance the effectiveness of academic programming and research support for students and faculty.

5: Create and maintain instructional facilities that enhance program effectiveness.

6: Serve evolving student needs through responsiveness to sound assessment data and flexibility in academic programming.

2) Increase the University’s research profile to strengthen our institutional curricula and ability to meet societal needs through the creation of new knowledge.

1: Develop and maximize the creative and scholarly performance of ISU faculty and students.

2: Promote research that advances the institutional mission, addresses evolving societal needs, and drives economic development.

3: Develop strategic public and private partnerships focused on advancing the institutional mission, programming needs, and the needs of surrounding public and private entities.

4: Develop and refine research products and services, and develop infrastructure to facilitate the patent process and to market the economic value of research activities.

5: Create and maintain research facilities and infrastructure that enhance program effectiveness.
3) **Advance medical and health care education throughout the state and region through increasing the quality of healthcare, the number of practicing health care professionals, and promotion of translational research.**

1: Increase the numbers of clinical faculty employed by and affiliated with the University.
2: Develop strategic public and private partnerships with health care organizations, facilities, and professional and provider organizations throughout the state and region.
3: Enhance the depth and breadth of our existing residency programs and develop new and innovative programs.
4: Strengthen public service and health care education through enhanced clinic operations.
5: Enhance translational research.
6: Enhance both governmental support and finances as well as external fund raising focused on health and medical education.
7: Establish a distributive medical education program to leverage existing health care expertise and serve needs across the State of Idaho.

4) **Prepare students to function in a global society.**

1: Enrich learning and research opportunities for both students and faculty through greater development of international programming.
2: Recruit and retain students, faculty, and staff from underrepresented groups to better serve institutional and community needs for integration of multicultural and gender-related perspectives in our range of programming.
3: Create instructional, research, residential, and social environments that encourage the social integration of all students, faculty, staff, and the larger community.

5) **Focus institutional instructional and research expertise on community and societal needs throughout the state, region, nation, and world.**

1: Actively participate in community planning, marketing, volunteerism, and responsible economic development throughout the state and region.
2: Enhance partnerships with other institutions of higher education throughout the state and region.
3: Strengthen partnerships with K-12 organizations to enhance students’ abilities to enter and ascend ISU’s educational ladder of opportunity.
4: Develop and maintain continuing education services founded on quality, access, affordability, and flexibility.
5: Develop and refine academic programming and research that advances our institutional mission as it evolves to meet changing needs across the state, region, nation, and world.
6: Enhance existing alumni relations and support and develop further resources aimed at supporting the University’s mission.

6) **Promote the efficient and effective use of resources.**

1: Set University-wide priorities for faculty and staff development and capacity building.
2: Develop a culture of effective and efficient governance based on organization, communication, accountability, consistency, relationship building, and University-wide prioritization.
3: Provide an administrative infrastructure that provides proper budgeting processes and sound budgetary oversight.
4: Develop a clear and concise Manual of Administrative Policies and Procedures that helps to ensure compliance with applicable laws and regulations, promote operational efficiencies, enhance the University’s mission, and reduce institutional risks.
5: Strengthen fiscal controls, with attention to stakeholder involvement and understanding, to maximize the propriety of and control over financial transactions, as well as ensure that assets are protected and costs are incurred only when necessary.
6: Provide quality human resource services and support, and promote both ethics and diversity, enabling employees to better serve the university and our community.
7: Ensure that Information Technology Services supports the University’s missions for teaching and learning, research, and administration applications by providing appropriate information and instructional technology and support, built on an effective and reliable information technology infrastructure.

**Accreditation**

Idaho State University is accredited by the Northwest Commission on Colleges and Universities. In addition, the University is accredited or approved for specific programs by the following organizations:

- ABET, Inc.
- Accreditation Council for Graduate Medical Education
- Accreditation Council for Occupational Therapy Education
- Accreditation Council for Pharmacy Education
- Accreditation Review Commission on Education for the Physician Assistant
- American Association of Medical Assistants
- American Association of Museums
- American Chemical Society
- American Culinary Federation, Inc.
- American Dental Association Commission on Dental Accreditation
- American Equipment Distributors
- American Health Information Management Association
- American Psychological Association
- American Society of Health-Systems Pharmacists
- American Speech-Language-Hearing Association
- Association for Assessment and Accreditation of Laboratory Animal Care
- Association of General Contractors
- Association of University Programs
- Association to Advance Collegiate Schools of Business
- Automotive Service Excellence
- Accreditation Council for Education in Nutrition and Dietetics
- Commission on Accreditation for Health Informatics and Information Management Education
- Commission on Accreditation in Physical Therapy Education
- Commission on Accreditation of Allied Health Education Programs
- Commission on Collegiate Nursing Education
- Council for the Accreditation of Counseling and Related Educational Programs
- Council on Education for Public Health
- Council on Social Work Education
- Federal Aviation Administration
- Idaho Board of Nursing
- Idaho Bureau of Occupational Licenses
- Idaho State Department of Education
- National Accrediting Agency for Clinical Laboratory Sciences
- National Association for the Education of Young Children
- National Association of Industrial Technology
- National Association of School Psychologists
- National Association of Schools of Music
- National Association of Schools of Theatre
- National Automotive Technicians Education Foundation
- National Council for Accreditation of Teacher Education
- National League for Nursing Accrediting Commission, Inc.
- Northwest Commission on Colleges and Universities
- State of Idaho Peace Officers Standards and Training
The University holds membership in numerous organizations which have specific academic requirements. These memberships vary according to institutional need.

**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. The student outcomes assessment requirement is set forth in policies of the Idaho State Board of Education, which is the governing body of Idaho State University, and standards of the Northwest Commission on Colleges and Universities, which provides Idaho State University’s institution-wide accreditation.

Idaho State University is committed to providing opportunities for students to reach their intellectual potential, achieve their educational goals and objectives, and be well prepared to enter the workforce. To help accomplish this, a program of regular, multifaceted student outcomes assessment has been implemented within the academic units to improve the teaching and learning process.

Comprehensive information, including various measures of student performance and student input regarding the educational process, is vital to the success of the assessment program. To obtain this information, students 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 Bengal Web 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/ferpafaacts.shtml](http://www.isu.edu/areg/ferpafaacts.shtml)

**Alumni Association and Foundations**

**Alumni Association**

[www.isu.edu/alumni](http://www.isu.edu/alumni)

[alumni@isu.edu](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.

Physical Facilities and University Services

The Idaho State University campus encompasses over 23,000 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 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 presented 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 was completed in 2012 and provides 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, 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) 282-3287 (in Pocatello) or 1-800-688-4781 (outside Pocatello) for more information.

Textbooks may be purchased online using our efollett.com service.

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

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 affiliated Idaho State University departments. See course descriptions in the College of Arts and Letters section of the catalog.

The Idaho Museum of Natural History gallery is open from 12:30-5 p.m., Wednesday through Friday, 10-5 pm Saturday, except for Federal and State holidays. There is currently no admission fee.

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 email. Students may also visit our IT Service Desk locations wherever Computer Accounts are sold (locations listed above).

BengalWeb (ISU’s electronic portal) provides one stop, personalized access to all 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) 282-4357.

Student Unions

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

The Earl R. Pond Student Union provides student 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 Hypostyle 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, International Programs Office, 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 offers student 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
www.isu.edu/housing
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 www.isu.edu/housing. The Housing fees cover all utilities and basic cable television. On-campus housing is within the University’s wireless internet network, but be aware 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 (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
University Librarian, Dean: Shropshire
Professors: Beran, Higgins
Associate Professors: Homan, Semenza
Assistant Professors: Austin, Gray, Guo, Jardine
Instructor: Kourey
Assistant Lecturer: C. Downing
Emeriti: J. Downing, Hitchcock, Lurie

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 its A-Z Journal List, both available through the library web page. 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 is the 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 interlibrary 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 interlibrary 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 Services
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 available to students at the main campus. With the assistance of trained staff, 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, interlibrary 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 www.isu.edu/library.

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

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. Graduate students should refer to the Graduate Catalog.

Idaho State University welcomes all students of good character who provide evidence of suitable preparation for work at the college level. 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 register 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 admission consideration. Otherwise, a $20 late fee is assessed and an admission decision cannot be guaranteed prior to the beginning of the ensuing semester.

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

1. New Freshman Students
   a. Students who have never attended a college or university;
   b. Transfer students who have fewer than 14 transferable baccalaureate-level semester credit hours;
   c. Students who have participated in an early college or concurrent enrollment program while still classified as high school students.

2. Transfer Students
   a. Students who have been enrolled and received grades at any college or university prior to being admitted to Idaho State University who have earned 14 or more transferable baccalaureate-level semester credit hours.

3. Former Students
   a. Students admitted in the past who enrolled at ISU previously, but have not been enrolled for the past 8 semesters.

4. International Students

5. Professional Technical Students

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

Conditional Admission 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 admitted 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>Subject</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>English (Composition, Literature)</td>
<td>5 semesters</td>
</tr>
<tr>
<td>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.)</td>
<td>6 semesters</td>
</tr>
<tr>
<td>Humanities/Foreign Language (Literature, History, Philosophy, Foreign Language, and related study of 2 or more of the traditional humanities disciplines)</td>
<td>2 semesters</td>
</tr>
<tr>
<td>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)</td>
<td>3 semesters</td>
</tr>
</tbody>
</table>

New Freshman Students

Application Steps
1. Apply for Admission—the form is online at apply.isu.edu.
2. Pay the $40 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** requires:

1. a completed Undergraduate Admission Application with the $40 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.

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

**Conditional Admission** requires:

1. a completed Undergraduate Admission Application with the $40 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 or GED Students Between 18 and 21 Years of Age**

**Assured Admission** requires:

1. a completed Undergraduate Admission Application with the $40 nonrefundable application fee paid,
2. Composite score of at least 21 on ACT or a 1050 combined SAT Math and Critical Reading score,
3. a math minimum test score of 18 on the ACT or 490 on the SAT,
4. an English minimum test score of at least 18 on the ACT or 460 on SAT Critical Reading,
5. Passing score on the GED.

**Conditional Admission** requires:

1. a completed Undergraduate Admission Application with the $40 nonrefundable application fee paid,
2. Composite score of at least 20 on ACT or a 1000 combined SAT Math and Critical Reading score,
3. Math score of at least 12 on ACT or 270 on SAT,
4. English score of at least 12 on ACT or 360 on the SAT Critical Reading,
5. Passing score on the GED.

**GED Students Younger than 18 or Older than 21**

GED students younger than 18 years of age must petition the Admission Committee to be considered for admission.

GED students over 21-years-old must have a passing GED score with a 450 (45) average and no individual score below 410 (41) and both a Compass score in English of at least 68 and Algebra score of at least 40.

**Admission by Petition**

Applicants with a diploma or passing GED score who do not meet the admission requirements above, or transfer students with a cumulative GPA of less than 2.0, 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. Letters of support from counselors, teachers, etc., are encouraged.

Admission petitions will be approved only when the applicant provides evidence of preparation 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 Adult 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 that demonstrates a strong foundation for academic success.

Admission petitions are reviewed by an Admission Committee chaired by a representative of the Office of the Registrar or Office of Admissions. The committee consists of at least five other members representing faculty, Academic Advising, the Athletics Department, Disability Services, and TRiO Student Services. Completed petitions are usually reviewed within one month. Applicants may be asked to complete a placement exam prior to an admission decision.

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 2013 semester could request a deferment up to and including the Fall 2016 semester. See the table below for additional semesters.) This deferment assumes that the student:

- will remain a first-time freshman upon enrollment
Transferable semester hours (credits) are not granted for the following:

- Grades of Satisfactory or Unsatisfactory are not accepted for transfer unless approved by petition.
- Grades of Credit or No Credit are not accepted for transfer.
- Grades of Incomplete are not accepted unless completed within the time specified by the college or university.
- Grades of Transfer are not accepted.

Applicants not meeting requirements to be granted assured or conditional admission to ISU must request re-admission by August 1 before the fall semester for which the student has been admitted. (Example: For students admitted for Fall 2013, the form must be received by August 1, 2013.) 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 2013, the form must be received by August 1, 2013.) 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.

**Transfer Credit Limitations**

**Junior and Community Colleges**

Students transferring from a regionally accredited junior college or community college may use a maximum of 70 credits for an Idaho State University bachelor’s degree.

**Professional-Technical Credit**

Credits earned at regionally accredited or state-approved professional-technical schools may be petitioned through the appropriate academic departments for transfer credit consideration.

**Lower vs. Upper Division Transfer Credit**

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 Admissions Office.

**Transfer Credits toward General Education Requirements**

1. Students who transfer to Idaho State University from a U.S. regionally accredited institution with an earned Associate of Arts (A.A.), Associate of Science (A.S.), or Associate of Arts and Science (A.A.&S.) degree (received in 1995 or later) or baccalaureate degree have met the General Education requirements for Idaho State University. However, they will be required to complete all courses that are required by their major or degree program at Idaho State University, including prerequisites to courses that may be on the Idaho State University General Education course list.

2. Students transferring from any U.S. academic regionally accredited institution, who have completed the Idaho general education core courses (but do not have an A.A., A.S. or A.A.&S. degree) and have their transcripts noted “Idaho core certified” by the sending institution, have met the Idaho State University general education requirements. However, they will be required to complete all courses that are required by their major or degree program at Idaho State University, including prerequisites to courses that may be on the Idaho State University General Education course list.

**New Transfer Students**

**Definition**

A transfer student is a student who has been enrolled and received grades at any college or university prior to being admitted to Idaho State University. Students who fit this definition but who have fewer than 14 transferable semester hours (credits) are subject to the admission requirements for New Freshmen shown above.

**Application Steps**

1. Apply for Admission—the form is online at apply.isu.edu.
2. Pay $40 nonrefundable application fee.
3. An official transcript from each college previously attended 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 colleges). No transcripts will be accepted directly from a student under any circumstances.
4. If applying in mid-semester while attending elsewhere, submit an in-progress college transcript indicating grades earned through the most recent completed semester.

**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 registration.**

**Assured Admission requires:**

1. A completed Undergraduate Admission Application with the $40 nonrefundable application fee paid,
2. 2.0 or better cumulative grade point average.
3. A final, official transcript from each college attended.

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

**Transfer Credit Evaluation**

Transfer credits will not be evaluated until all credits earned or attempted and all grades received in college-level courses from regionally accredited institutions are evaluated for possible transfer credit to Idaho State University. The applicability of these credits to the student’s program of study is determined by their major department.

Transfer credits from non-U.S. colleges or universities which are college level and have a passing grade are recorded with grades of Satisfactory or Unsatisfactory.

**A transfer GPA is not calculated for the ISU record.**

**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.

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Transfer credits from non-U.S. colleges or universities which are college level and have a passing grade are recorded with grades of Satisfactory or Unsatisfactory.

**A transfer GPA is not calculated for the ISU record.**
Departmental Prerequisites and Lower Division Requirements
Transfer students should be aware that graduation requirements for certain majors may include specific courses or additional credit hours in courses normally associated with General Education Requirements.

Transfer Students from Non-Accredited Institutions
Credit from nonaccredited institutions will be accepted on the basis of those institutions listed in the Transfer Credit Practices of Designated Educational Institutions, published by the American Association of College Registrars and Admissions Officers and Accredited Institutions of Postsecondary Education published by the American Council on Education. Credit denied on the basis of such practice may be sought by examinations or petitioned through Idaho State University’s academic departments. An application for transfer credit may also be made with the Idaho State Board of Education.

Other Applicants

Former Students
Students who have NOT enrolled for classes at Idaho State University for 8 semesters are required to re-apply and submit the following to the Office of Admissions:

1. Application for Admission. Access online application at apply.isu.edu.

2. Complete, official transcripts from any other colleges attended since enrolled at Idaho State University.

3. Application Fee ($40, nonrefundable).

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 for 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 at most 7 credits per semester, unless he or she is enrolled in the Early College Program. A non-degree seeking student who has completed 32 credits must follow regular admission procedures at Idaho State University to enroll for additional degree credits or sign a non-degree waiver to continue as a non-degree seeking student. All admission requirements must be met before the University can assist this student in obtaining a degree. Such a student will be classified as non-degree seeking until all admission requirements are met for classification as a regular 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. 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 registration form. Written permission from their principal or counselor is needed along with a parent’s and the student’s written signatures. High school students meeting the necessary 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://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 secondary Education. 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://public.itrc.isu.edu/uhhs/.

International Students
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 International Programs Office 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 ($40, nonrefundable);
2. Documents showing English proficiency; (ex. IELTS, TOEFL)

3. Official transcripts from all universities previously attended and statements of English proficiency when applicable;

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 International Programs Office along with a copy of the current I-20/DS-2019 and I-94 forms issued to them by the school from which they wish to transfer.

ALL REQUIRED ADMISSIONS DOCUMENTS MUST BE RECEIVED PRIOR TO ENROLLMENT AND REGISTRATION FOR CLASSES.

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.

NOTE: 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 in a sealed envelope directly from the college/university to the International Programs Office at 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,

English TOEFL-- iBT of 61 or above,

IELTS -- 5 or above.

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

1. are coming from countries where English is the official medium of instruction.

2. are transferring 26 or more credits from another college or university in the United States.

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/.

Students can also show English proficiency by completing Level 112 at any ELS program (http://www.els.edu).

International High School Graduates

Assured Admission requires:

1. a completed Undergraduate Admission Application with the $40 nonrefundable application fee paid,

2. a 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.

We do not require SAT or ACT scores for admission. However, we strongly encourage our students to take these.

Conditional Admission requires:

1. a completed Undergraduate Admission Application with the $40 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.

Questions regarding this process please call (208) 282-4320.

International Alternative Admissions without High School Diploma

Assured Admission requires:

1. a completed Undergraduate Admission Application with the $40 nonrefundable application fee paid,

2. a composite score of at least 21 on ACT or a 1050 combined SAT Critical Reading and Math score;

3. a 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.

Students will be required to provide either a TOEFL iBT score of 61 or above or an IELTS score of 5 or above 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.

Conditional Admission requires:

1. a completed Undergraduate Admission Application with the $40 nonrefundable application fee paid,

2. a composite score of at least 20 on ACT or a 1000 combined SAT Critical Reading and Math score,

3. a 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.

Students will be required to provide either a TOEFL iBT score of 61 or above or an IELTS score of 5 or above 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 send in 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) college/university transcripts in a sealed official envelope from the school or copies certified by the school principal or the controller of examinations. These must be also in official, sealed school envelope.

2. If student has completed at least 26 credits at a college/university, then a student is required to send in official (original) college/university transcripts in a sealed official envelope from the school or copies certified by the school principal or the controller of examinations. Documents must be also in official, sealed school envelope. Students who have attended more than one college/university must submit official transcripts from all institutions they attended.

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 documents must be translated by a certified translator if the documents are not in English.

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 evaluation in addition to the official transcripts. For evaluations, Idaho State University recommends:

World Education Services
http://www.wes.org  212-966-6311
Global Services Associates, Inc.
http://www.globaleval.org  310-828-5709
Global Credential Evaluators Inc.
http://www.gcevaluators.com  512-528-0908

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 Transfer of I-20/DS-2019 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. Information in this report and the I-20 will help verify the applicant’s status with the United States Citizenship and Immigration Services (USCIS).

Declaration of Financial Support / Financial Statement

All international students must submit written proof 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 Per Year

Undergraduate, Without Non-resident Tuition Scholarship

<table>
<thead>
<tr>
<th>Category</th>
<th>Yearly Expense</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition and Fees*</td>
<td>$ 18,040.00</td>
</tr>
<tr>
<td>Other Expenses (Books, Supplies, and Medical Insurance)</td>
<td>$ 2,850.00</td>
</tr>
<tr>
<td>Room and Meals</td>
<td>$ 5,382.00</td>
</tr>
</tbody>
</table>

Total: $ 26,272.00

Note: Academic year includes Fall and Spring semesters only. Summer Semester costs are not included in the estimates. Costs are subject to change; see http://www.isu.edu/fserv/costinfo.shtml for the most updated information. *Some academic and most College of Technology programs require additional room or board 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 required of all non-Idaho residents.

See Expenses in the Registration section of this Catalog 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 arrival on campus. In addition, international students may be required to arrange for their own meals during periods when residence hall cafeterias are closed.
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, and within the College of Pharmacy and 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 and 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 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 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 www.isu.edu/tigeri/bengalweb/ClassScheduleStudents.shtml.

Registration Schedule
Registration activity can be performed 24 hours a day through BengalWeb. 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.
Expenses

The following fee rates are subject to change without advance notice. (See Policy Statement Concerning Catalog Contents at the beginning of this catalog.)

In general, the expenses for Idaho State University students may be divided into classifications of tuition and fees, board, and room. In addition to the fees listed, some courses may require the expense of special uniforms, protective clothing, field trip expenses, lab fees, special materials fees, etc.

Enrollment Fees

Academic Undergraduate and College of Technology Semester Fees, including summer

The following fees are estimates and are subject to change. They are a sample of the generally charged fees, but the actual charges will be reflected on each student’s billing. Summer semester fees are paid on a per credit basis. Additional class fees and program fees may be charged. Updated fees and other financial services information are found at http://www.isu.edu/costinfo.shtml. College of Technology students should consult with the Student Services Office at (208) 282-2622.

<table>
<thead>
<tr>
<th>Classification</th>
<th>Resident</th>
<th>Nonresident</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time (12 credit hours or more) Per Semester*</td>
<td>$3,035.00 + insurance*</td>
<td>$8,935.00 + insurance*</td>
</tr>
<tr>
<td>Part-time (1-11 credits) Resident</td>
<td>$304.00 per credit hour</td>
<td>$494.00 per credit hour</td>
</tr>
<tr>
<td>Part-time (1-11 credits) Nonresident</td>
<td>$494.00 per credit hour</td>
<td></td>
</tr>
</tbody>
</table>

*All full-time academic undergraduate students taking twelve (12) or more credit hours, graduate students taking nine (9) or more credits, and international students taking one (1) or more credits are automatically enrolled in the student health insurance plan. College of Technology students are also automatically enrolled in the student health insurance plan. This premium is added to their fees each semester or session. Any student with existing health insurance coverage may be exempt from participation in the Student Insurance Plan by completing and filing a Health Insurance Waiver each academic year. For any questions regarding coverage, premium, or enrollment, contact the Student Health Insurance Office at (208) 282-2972.

Room and Board Expenses

All rates include all utilities. The expenses shown on the website given below do not include the cost of laundry, bedding, books, or personal items. A refundable multi-purpose deposit is collected. These prices are subject to change. The most current information will be found online at http://www.isu.edu/housing/.

Other Fees and Charges

Academic Credit for 1198p, 2298p, 3398p, 4498p and 5598p Courses

Fees are established to recover costs attributable to each unique presentation. In addition to a cost recovery workshop fee, a $50.00 per credit hour fee recording fee will be levied.

Application Fee

(Prerequisite and College of Technology students)

<table>
<thead>
<tr>
<th>Classification</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate</td>
<td>$40</td>
</tr>
<tr>
<td>Graduate</td>
<td>$55</td>
</tr>
</tbody>
</table>

Audit Fee: Same as part-time credit hour fees

Class Fees (in addition to regular registration fees)

Many university classes require additional fees for specialized instruction and/or supplies. See the Class Schedule for class fees required for specific courses.

Credit by Challenge Examination

Challenge examinations (arranged by petition) are charged per credit at the rate of 33% of the current cost per credit hour (payment required at Idaho State University Cashier’s Office prior to taking the exam); more information is located under the heading, “Credit by Challenge Examination,” later in this catalog.

Credit from College Level Examination Program (CLEP)

For information about CLEP examinations (taken at Counseling and Testing Center), see the website http://www.isu.edu/ctc/ or contact the Counseling and Testing Center at (208) 282-2130.

Credit Recording Fee*

<table>
<thead>
<tr>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>$15</td>
</tr>
</tbody>
</table>

*D (Per credit hour and in addition to evaluation fee; payable after evaluation.)

Dental Hygiene

<table>
<thead>
<tr>
<th>Classification</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester Fee, Junior/Senior</td>
<td>$278</td>
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</tbody>
</table>

Experiential Credit

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Evaluation Fee</td>
<td>$50*</td>
</tr>
</tbody>
</table>

*(Per academic area evaluated; payable at Idaho State University Cashier’s Office prior to evaluation process.)

Credit Recording Fee | $15*

*(Per credit hour and in addition to evaluation fee; payable after evaluation.)

Faculty, Staff and Qualifying Spouse

<table>
<thead>
<tr>
<th>Classification</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration Fee</td>
<td>$20</td>
</tr>
</tbody>
</table>

A copy of the current Education Policy for Idaho State University Employees is available in the Human Resources Office, Administration Building Room 312. Verification of employment and authorization forms for reduction in fees may also be obtained from this office.

GED Transcript Fee

<table>
<thead>
<tr>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>$5</td>
</tr>
</tbody>
</table>

Graduation/Diploma Fee

<table>
<thead>
<tr>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>$20</td>
</tr>
</tbody>
</table>

This fee is collected from each applicant for a certificate or for each associate, bachelor’s, master’s or doctoral degree.

Idaho Dental Education Program (IDEP) Fee

Any student enrolled in the Idaho Dental Education Program is subject to a professional fee determined by the State Board of Education. For further information, contact the Program Director.

In-Service Teacher Education Fee

As defined by the State Board of Education, the In-Service Teacher Education fee “shall be one-third of the average part-time undergraduate credit hour fee or one-third of the average graduate credit hour fee.” This special fee shall be applicable only to approved teacher education courses. The State Board of Education determines if a course or individual qualifies for this special fee.

Late Registration Processing Charges

Second through tenth day of classes | $50
After tenth day of classes | $100

To help defray extra costs involved with late registration, processing fees are charged in addition to any other regular fees. All students (full-time, part-time, faculty, staff, etc.) paying fees after the deadline for fee payment are charged a late processing fee. The cashier is not authorized to accept late registration fee payment without the appropriate late processing fee. This fee is nonrefundable. No department or em...
ployee of the University, other than those specifically authorized, has the authority to waive the fee.

**Medical Laboratory Science**
Semester Fee $470

**Military Style Physical Fitness Class Fee**
A class fee of $20 is charged for enrollment in MSL 1110, Military Style Physical Fitness.

**Music Fees**
A special music fee is charged for enrollment in applied music (private lessons). Students taking applied music lessons pay fees of $175, $240, and $350, depending on the level and length of the lessons. Please see the Class Schedule for the applicable fee under Applied Music Lessons.

**Non-credit Course Fees**
Fees are established to recover costs attributable to each unique presentation. Additional fees may be established to cover the cost of awarding Continuing Education Units (CEUs) if the course is one for which CEUs are awarded.

**Nursing, Bachelor’s Degree**
Semester Fee $760

**Occupational Therapy Professional Fees (per semester)**
- Resident $980
- Nonresident $3,388

**Paramedic Science, Associate Degree**
Semester Fee $650
8-week Summer Session $325

**Pharmacy Professional Fee (per semester)**
- Resident $4,549
- Non-Resident $6,815

**PharmD Nontraditional**
*Rate A*: (entered program 2004 to Summer 2010)
- Resident $315 per credit
- Nonresident $354 per credit
*Rate B*: (entered program Summer 2010 and after)
- Resident $444 per credit
- Nonresident $550 per credit

**Physical Therapy Professional Fees (per semester)**
- Resident $1,190
- Nonresident $3,388

**Placement Testing Fee (Compass Tests)**
$5 per examination

**Radiographic Science**
Semester Fee $345

**Remediation Fees**
Payment of remediation fees is required for pre-college courses, as follows:
- Arithmetic/Pre-Algebra (MATH 015) $50
- Elementary Algebra (MATH 025) $50
- Basic Writing (ENGL 90) $75

**Senior Citizens**
Registration Fee $20 + $5 per cr. hour
*Age 60 years or older; proper identification indicating date of birth is required; fee is for courses on a space available basis only; special course fees also may be charged.
Fee reduction does not apply to non-resident students.

**Social Work Fees**
Application Fee $30
Semester Fee $125

**Speech Language Pathology Online Preprofessional Fee**
Per credit fee $196

**Student Health Insurance Fee**
All full-time fee-paying students, and all international students taking 1 credit or more:
- Fall Semester $925
- Spring Semester $925
- Summer Semester $462
- Any 8-week session $347
Any student with existing health insurance coverage may become exempt from participating in the Student Insurance Plan by completing and filing a Health Insurance Waiver each academic year. For more information, contact the Student Health Insurance Office, (208) 282-2972.

**Transcript Fee**
See information at http://transcripts.isu.edu

**VTE Competency Credit Fee (College of Technology)**
$135

**Idaho Residency Requirements for Fee Payment**
See www.isu.edu/areg/residency/residencyInfo.shtml for the most complete and current information regarding residency requirements. Residency for tuition purposes is governed by Idaho Code § 33-3717 and the residency rules of the State Board of Education. Although a full-time regularly-enrolled resident student is not required to pay tuition while enrolled at Idaho State University, students are charged fees for educational costs excluding the cost of instruction in accordance with the Idaho State System of Higher Education “Notice to Nonresidents of the State of Idaho.”

A student is a “resident” for purposes of fee payment if he or she:
1. has a parent or court-appointed guardian currently domiciled in Idaho who has maintained a bona fide domicile in Idaho for at least one year prior to the opening day of the term for which the student enrolls; or
2. receives less than 50% financial support from parents or guardians who are not residents of Idaho and has continuously resided in Idaho for at least 12 months prior to the opening day of the term for which the student enrolls and has established a bona fide domicile in Idaho primarily for purposes other than educational; or
3. is a graduate of an accredited secondary school in the state of Idaho and is admitted to a college or university in Idaho during the semester immediately following such graduation regardless of the residence of his/her parents or guardians; or
4. is the spouse of an Idaho resident or person who qualifies for Idaho residency; or
5. is (or spouse, parent or guardian) a member of the United States armed forces (only the U.S. Army, Navy, Air Force, or Marine Corps) who entered service as an Idaho resident and who has maintained Idaho resident status but is not currently stationed within the state of Idaho on military orders and the student receives 50% or more financial support from parent or guardian; or
6. is (or spouse, parent or guardian) an active duty member of the United States armed forces stationed in Idaho and the student receives 50% or more financial support from parent or guardian; or
7. is (or spouse, parent or guardian) an officer or enlisted member of the Idaho National Guard and the student receives 50% or more financial support from parent or guardian; or
1. A “nonresident” student shall include:

   1. Any student attending an institution in this state with the aid of financial assistance provided by another state or governmental unit or agency thereof. This nonresidency status shall continue for one (1) year after the completion of the semester for which such assistance is last provided.

   2. Any person who is not a citizen of the United States of America, who does not have permanent or temporary resident status or does not hold “refugee-parolee” or “conditional entrant” status with the U.S. Immigration and Naturalization Service or is not otherwise permanently residing in the U.S. under color of the law and who does not also meet and comply with all applicable requirements for establishing residency as covered under these provisions.

2. is (or spouse, parent or guardian) separated under honorable conditions from the United States armed forces (a certified copy of the DD-214 separation papers must be provided) after at least two years of active duty service and has Idaho as the home of record in service or elects Idaho as his/her intended domicile within one year of separation and enters a college or university in Idaho within one year of the date of separation and the student receives 50% or more financial support from parent or guardian; or

9. is a member of any one of the Idaho Native American Indian Tribes (Coeur d’Alene, Shoshone-Paiute, Nez Perce, Shoshone-Bannock, Kootenai, or Eastern Shoshone), regardless of current domicile.

Any individual who has been domiciled in the state of Idaho, has qualified as a resident and would otherwise be qualified under the provisions of this statute and who

is away from the state for a period of less than 30 months and has not established domicile.

Residency decisions for fee payment purposes are made by the Office of the Registrar.

This notice provides for appeal from a final determination denying residency status in the following way:

Appeal may be initiated by the filing of an action in the District Court of Bannock County wherein Idaho State University is located; an appeal from the District Court shall lie as in all civil actions.

Normal Idaho residency requirements shall be in force for students who apply for some special graduate and professional programs. These include but are not limited to the Idaho Dental Education Program (IDEP), the WAMI (Washington, Alaska, Montana, Idaho) Regional Medical Education Program; the University of Utah College of Medicine; the WOI (Washington, Oregon, Idaho) Regional Program in Veterinary Medicine; the Western Interstate Commission for Higher Education (WICHE) Professional Student Exchange Programs (medicine, optometry and occupational therapy) and Graduate Education Program.

Students who initially enroll at Idaho State University as nonresidents and later wish to be considered for a change in residency status must submit an Idaho Residency Determination Worksheet (IRDW) with the appropriate documentation. IRDWs intended to change residency status for the current term are accepted through the tenth day of classes.

NOTE: It is the responsibility of the person requesting reclassification of residency status to provide clear and convincing evidence of bona fide domicile in Idaho.

Establishing a New Domicile in Idaho:
The establishment of a new domicile in Idaho by a person formerly domiciled in another state has occurred if such person is physically present in Idaho primarily for purposes other than educational and can show satisfactory proof that such person is without a present intention to return to such other state or to acquire a domicile at some other place outside of Idaho.

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, nonresident 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 fees, nonresident 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.

Room and Board Fees

Students who fail to complete their agreement with the University Housing Office will have their board fees prorated and, after appropriate penalties have been deducted, may receive a refund. See the Terms and Conditions of Residence section of the Residence Life and Apartment Agreements for details on the penalties for room violations.

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., 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:

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

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 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 Building
(208) 282-2150

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

NOTE: Time accrued while receiving any Non-Resident Tuition Waivers may not contribute towards the length of time required for establishing Idaho residency.

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 Building
(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
ASISU Office, Stop 8125
Room 399, Hypostyle
(208) 282-3435

Related to Talent (e.g., music, drama)
Academic Department Chairpersons

Veterans’ Educational Benefits
Veterans Coordinator, Stop 8196
Room 319, Museum Building
(208) 282-2676

Federal and State Financial Aid

Financial aid is help for meeting college costs—both direct educational costs (such as tuition, fees, books, etc.) and personal living expenses (such as food, housing, and transportation). Each year thousands of Idaho State University students rely upon student assistance funds to meet
some of their college costs. The majority of these students rely upon federal and state 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 federal financial aid programs 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 returns 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 grants or be in default or delinquent 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, www.isu.edu/finaid/.

Scholarships

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

Scholarship criteria vary (i.e., minimum grade point average and/or financial need, major, etc.). Scholarship announcements, including eligibility and application deadline information, are regularly distributed by the Scholarship Office to campus departments, posted on the Scholarship Bulletin Board located in the Hypostyle of the Student Union Building, and published to the Scholarship Office website (www.isu.edu/scholar). Individuals seeking information on scholarships should contact the Scholarship Office:

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

Nonresident tuition waivers are available to qualified students who demonstrate financial need (inquiries should be addressed to the Idaho State University Financial Aid and Scholarship Office), and to students who have demonstrated strong academic ability. Contact the Scholarships Office for nonresident tuition waiver information and applications.
Academic Information

Academic Policies
Academic policies fall under the purview of the University faculty. As such, all catalog entries and changes regarding academic policies in this section entitled “Academic Information” must be approved by a) the Academic Standards Council, b) the Faculty Senate, and then c) the appropriate administrative levels prior to publication and enforcement.

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, as listed below; all students pursuing a bachelor’s or academic associate degree must complete 8 of the 9 General Education Objectives. Graduation requirements regarding credits, grades, and residence are common to all bachelor’s degrees and are described in the section following the General Education listing.

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
- Locate relevant sources and use them critically and responsibly

Objective 1, Written English:
Minimum of one course.
The goals of this Objective are to provide students the opportunity to learn to:
- Communicate effectively in standard written English, and
- Communicate effectively in standard spoken English.

Courses that satisfy Objective 1:
ENGL 1102 Critical Reading and Writing 3 cr
HONS 1101 Honors Humanities 3 cr

Objective 2, Spoken English:
Minimum of one course.
The goals of this Objective are to provide students the opportunity to learn to:
- Communicate effectively in standard spoken English, and
- Communicate effectively in standard written English.

One course satisfies the objective:
COMM 1101 Principles of Speech 3 cr

Objective 3, Mathematics:
Minimum of one course.
The goals of this Objective are to provide students the opportunity to learn to:
- Explain basic mathematical concepts;
- Apply basic techniques in solving mathematical concepts;
- Interpret real-world problems in mathematical language; and
- Use mathematics to formulate appropriate conclusions for real-world problems.

Courses that satisfy Objective 3:
MATH 1123 Mathematics in Modern Society 3 cr
(Math prerequisite MATH 0025)
MATH 1127 The Language of Mathematics 3 cr
(Math prerequisite MATH 0025)
MATH 1130 Finite Mathematics 3 cr
(Math prerequisite MATH 1108)
MATH 1153 Introduction to Statistics 3 cr
(Math prerequisite MATH 1108)
MATH 1160 Applied Calculus 3 cr
(Math prerequisite MATH 1143)
MATH 1170 Calculus I 4 cr
(Math prerequisite MATH 1147 or 1143 & 1144)
MATH 226 Structure of Arithmetic for Elementary School Teachers 3 cr
(Math prerequisite MATH 1143)
MATH 227 Structure of Geometry and Probability for Elementary School Teachers 3 cr
(Math prerequisite: C- or better in MATH 1143)
MGT 2216 Business Statistics 3 cr
RCET 0372 Calculus for Advanced Electronics* 3 cr

For further information about mathematics prerequisites and placement, see Placement in Mathematics, later in this section of the catalog.
Objective 4, Humanities, Fine Arts and Foreign Language:

Minimum of two courses, chosen from any two of the sets below (4A, 4B, 4C)

The goals of this Objective are to provide students the opportunity to learn to:

- Demonstrate and apply basic terms and concepts in the Fine Arts and Humanities;
- Explain foundational influences or theories in the Fine Arts and Humanities;
- Apply analytical skills as appropriate to the discipline.

Courses that satisfy Objective 4:

Set 4A — Humanities

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENGL 1110</td>
<td>Introduction to Literature</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 1115</td>
<td>Major Themes in Literature</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 1126</td>
<td>Art of Film I</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 2257</td>
<td>Survey of World Literature I</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 2258</td>
<td>Survey of World Literature II</td>
<td>3 cr</td>
</tr>
<tr>
<td>HONS 1102</td>
<td>Honors Humanities I</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHIL 1101</td>
<td>Introduction to Philosophy</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHIL 1103</td>
<td>Introduction to Ethics</td>
<td>3 cr</td>
</tr>
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</table>

Set 4B — Fine Arts

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

Set 4C — Foreign Languages and Labs

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

Objective 5, Natural Science:

Minimum of two lecture courses, minimum of one laboratory. Courses must be from two separate prefixes. One lecture course must be from a Natural Science.

The goals of this Objective are to provide students the opportunity to learn to:

- Demonstrate and apply basic terms and concepts in the Natural, Applied, or Health Sciences;
- Explain foundational influences or theories in the Natural, Applied, or Health Sciences;
- Apply analytical skills as appropriate to the Behavioral and Social Sciences.

Courses that satisfy Objective 5:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1100 or 1100L</td>
<td>Concepts Biology: Human Concerns and Lab (N/L)</td>
<td>4 cr</td>
</tr>
<tr>
<td>CHEM 1100</td>
<td>Architecture of Matter (N/L)</td>
<td>3 cr</td>
</tr>
<tr>
<td>CHEM 1101</td>
<td>Introduction to General Chemistry (N)</td>
<td>3 cr</td>
</tr>
<tr>
<td>CHEM 1102, 1103</td>
<td>Introduction to Organic and Biochemistry, and Lab (N/L)</td>
<td>4 cr</td>
</tr>
<tr>
<td>CHEM 1111, 1111L</td>
<td>General Chemistry I, and Lab (N/L)</td>
<td>4 cr</td>
</tr>
<tr>
<td>CHEM 1112, 1112L</td>
<td>General Chemistry II, and Lab (N/L)</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL 1100</td>
<td>The Dynamic Earth (N)</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL 1100L</td>
<td>The Dynamic Earth Lab (N)</td>
<td>1 cr</td>
</tr>
<tr>
<td>GEOL 1101</td>
<td>Physical Geology (N)</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL 1101L</td>
<td>Physical Geology Lab (N)</td>
<td>1 cr</td>
</tr>
<tr>
<td>GEOL 1110</td>
<td>Physical Geology for Scientists Lab* (N)</td>
<td>1 cr</td>
</tr>
<tr>
<td>NTD 2239</td>
<td>Nutrition (H)</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHYS 1100</td>
<td>Essentials of Physics (N/L)</td>
<td>4 cr</td>
</tr>
<tr>
<td>PHYS 1101, 1101L</td>
<td>Elements of Physics, and Lab**</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHYS 1111</td>
<td>General Physics I (N)</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHYS 1113</td>
<td>General Physics I Lab (L)</td>
<td>1 cr</td>
</tr>
<tr>
<td>PHYS 1112</td>
<td>General Physics II (N)</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHYS 1114</td>
<td>General Physics II Lab (L)</td>
<td>1 cr</td>
</tr>
<tr>
<td>PHYS 1152</td>
<td>Descriptive Astronomy (N)</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHYS 1153</td>
<td>Descriptive Astronomy Lab (L)</td>
<td>1 cr</td>
</tr>
<tr>
<td>PHYS 2211</td>
<td>Engineering Physics I (N)</td>
<td>4 cr</td>
</tr>
<tr>
<td>PHYS 2213</td>
<td>Engineering Physics I Lab (L)</td>
<td>1 cr</td>
</tr>
<tr>
<td>PHYS 2212</td>
<td>Engineering Physics II (N)</td>
<td>4 cr</td>
</tr>
<tr>
<td>PHYS 2214</td>
<td>Engineering Physics II Lab (L)</td>
<td>1 cr</td>
</tr>
<tr>
<td>SCI 2220</td>
<td>General Science Lecture Course H</td>
<td>3 cr</td>
</tr>
<tr>
<td>SCI 2220</td>
<td>Laboratory Experience</td>
<td>1 cr</td>
</tr>
</tbody>
</table>

Objective 6, Behavioral and Social Science:

Minimum of two courses.

The goals of this Objective are to provide students the opportunity to learn to:

- Demonstrate and apply basic terms and concepts in the Behavioral and Social Sciences;
- Explain foundational influences or theories in the Behavioral and Social Sciences;
- Apply analytical skills as appropriate to the Behavioral and Social Sciences.

Courses satisfying Objective 6:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMST 2200</td>
<td>Introduction to American Studies</td>
<td>3 cr</td>
</tr>
<tr>
<td>ANTH 1100</td>
<td>General Anthropology</td>
<td>3 cr</td>
</tr>
<tr>
<td>ECON 1100</td>
<td>Economic Issues</td>
<td>3 cr</td>
</tr>
<tr>
<td>ECON 2201</td>
<td>Principles of Macroeconomics</td>
<td>3 cr</td>
</tr>
<tr>
<td>ECON 2202</td>
<td>Principles of Microeconomics</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIST 1101</td>
<td>Foundations of Europe</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIST 1102</td>
<td>Modern Europe</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIST 1111</td>
<td>U.S. History I (to 1865)</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIST 1112</td>
<td>U.S. History II (to present)</td>
<td>3 cr</td>
</tr>
<tr>
<td>POLS 1101</td>
<td>Introduction to American Government</td>
<td>3 cr</td>
</tr>
<tr>
<td>PSYC 1101</td>
<td>General Psychology</td>
<td>3 cr</td>
</tr>
<tr>
<td>SOC 1101</td>
<td>Introduction to Sociology</td>
<td>3 cr</td>
</tr>
<tr>
<td>SOC 1102</td>
<td>Social Problems</td>
<td>3 cr</td>
</tr>
<tr>
<td>WS 2201</td>
<td>Introduction to Women Studies</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Objective 7, Critical Thinking:

Minimum of one course chosen from either Objective 7 or Objective 8.

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.

The goals of this Objective are to provide students the opportunity to learn to:

- Formulate/frames 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>CS 1181</td>
<td>Computer Science and Programming</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIST 1118</td>
<td>U.S. History and Culture</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHIL 2200</td>
<td>Introduction to Logic</td>
<td>3 cr</td>
</tr>
<tr>
<td>POLS 2202</td>
<td>Critical Thinking and Analysis</td>
<td>3 cr</td>
</tr>
<tr>
<td>SOC 2248</td>
<td>Critical Analysis of Social Diversity</td>
<td>3 cr</td>
</tr>
</tbody>
</table>
Objective 8, Information Literacy
Minimum of one course chosen from either Objective 7 or Objective 8.

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.

The goals of this Objective are to provide students the opportunity to learn to:
- Understand 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;
- Under the economic, 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>CIS 1101</td>
<td>Digital Resources for Information Literacy</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 1108</td>
<td>Exploring Data and Information 3 cr</td>
<td></td>
</tr>
<tr>
<td>HIST 2291</td>
<td>The Historical’s Craft 3 cr</td>
<td></td>
</tr>
<tr>
<td>LLIB 1115</td>
<td>Introduction to Information Literacy 3 cr</td>
<td></td>
</tr>
</tbody>
</table>

Objective 9, Cultural Diversity: Minimum of one course.

The goals of this Objective are to provide students the opportunity to learn to:
- 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.

General Education and Major Field Requirements

If a student’s major program requires a course which also is approved for general education, that course may fulfill both general requirements and major field requirements.

Associate Degrees

All academic Associate degrees require a minimum of 64 credits. Other requirements may differ among the colleges and departments.

Bachelor’s Degrees

All academic bachelor’s degrees require a minimum of 120 credits and completion of all Objectives. Other requirements may differ among the colleges and departments. Specific major programs may have more specific requirements. Students should consult with their advisors while choosing Objective courses.

Other Degree Policies

Second Degrees

Second Associate Degree

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

(a) 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;

(b) 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:

(a) 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;

(b) satisfaction of upper division requirements in the major field as recommended by the department in which the second degree is to be granted;

(c) 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

Major Concentration
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.

Minor Concentration
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.

Double Major
A student may also pursue one degree with two major fields. Majors may be from the same or different colleges. To earn a double major, a student must complete all general education, college and major requirements of both major fields.

When one of the double major fields is in business, the student must earn a Bachelor’s of Business Administration degree and have a department within the College of Business as a home department. Students in professional programs other than Business should consult about licensing/certification requirements before undertaking any double major.

Additional Majors or Minors Earned after the First Bachelor’s Degree
An Idaho State University student who wishes to complete additional majors or minors after receiving a baccalaureate degree at Idaho State University may be admitted as a special graduate and must meet the major or minor requirements as determined by the program. Limitations include:

- a. The additional coursework must be completed within the five years of the first bachelor’s degree;
- b. A maximum of nine credits may be transferred from other accredited colleges or universities, as approved by the program; and
- c. A maximum of sixteen (16) credits will be allowed under this policy.

A student who needs more than sixteen credits for the major or minor should proceed to earn the second degree (32 credits minimum). After acceptance by the appropriate department, school or college and verification of completion, the student’s permanent academic record will be updated accordingly. No additional diploma or certificate will be awarded. Requests for the posting of such majors and minors must be made to the department chairperson and/or the college dean of the appropriate department, school or college.

Students should consult with their advisor about any program restrictions to this policy.

Graduation Requirements
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: http://bengalweb.isu.edu/cp/home/displaylogin

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 bengalweb.isu.edu
- Pay in person:
  - Academic students: contact the Cashier’s Office
  - College of Technology students: contact the Student Services Office
Incomplete Grades

- All incomplete grades (I) or in-progress (IP) must be received no later than four weeks after the date of graduation.

- All 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.

Credit 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.

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” earlier in this section of the 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*
  - 32 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 for specific information.

- Not more than a total of 64 credits may be counted from the above areas.
  - 32 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/PEAC 1110).
  - 8 credits in speech and drama activity.

- 4 credits in autotutorial 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 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 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 reenrollment, 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% graduate with high honors. See also the University Honors Program, described later in this section.

**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.

Schedule Change Cards are searchable at isu.edu.

**Course Numbering**

Courses numbered 0000-0999 do not carry academic credit. Courses numbered 1100-2299 are lower division courses for freshmen and sophomores, respectively.

Courses numbered 3300-4499 are upper division courses for juniors and seniors, respectively. Courses above 3300 are open without restrictions, except specific prerequisites, to students who have completed 58 credits. Other students may take such courses on approval of the instructor, advisor, and dean.

Courses numbered 66xx and 77xx are for students admitted into 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
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.

Placement into English and Mathematics Courses

English
1. Students with an ACT English score below 18, a Compass score below 68, or an SAT score of 440 or lower register for ENGL 0090.

2. Students with an ACT English score of 18-24, a Compass score of 68-94, or an SAT score of 450-560 and students who have passed ENGL 0090 register for ENGL 1101.

3. Students with an ACT English score of 25-30 or an SAT score of 570-690 receive 3 ENGL 1101-equivalent credits and register for ENGL 1102.

4. 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 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-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 timely fashion. Accordingly, ENGL 1101 should normally be completed during the freshman year, ENGL 1102 by the conclusion of the sophomore year.

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 (S in MATH 0015 and 0025) 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 underlined):

<table>
<thead>
<tr>
<th>MATH Course(s)</th>
<th>ACT</th>
<th>SAT</th>
<th>Compass</th>
</tr>
</thead>
<tbody>
<tr>
<td>0015</td>
<td>---</td>
<td>---</td>
<td>46 on Prealgebra (MAPL 1)</td>
</tr>
<tr>
<td>0025</td>
<td>16</td>
<td>390</td>
<td>45 on Algebra (MAPL 2)</td>
</tr>
<tr>
<td>1108 1123 1127</td>
<td>19</td>
<td>460</td>
<td>61 on Algebra (MAPL 2)</td>
</tr>
<tr>
<td>1130 1143 1147</td>
<td>23</td>
<td>540</td>
<td>61 on Algebra (MAPL 2)</td>
</tr>
<tr>
<td>1153</td>
<td>27</td>
<td>620</td>
<td>51 on College Algebra (MAPL 3)</td>
</tr>
<tr>
<td>1170</td>
<td>29</td>
<td>650</td>
<td>51 on Trigonometry (MAPL 4)</td>
</tr>
</tbody>
</table>

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

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 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.

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 40 clock hours per credit.

Credits Allowed per Semester
Students in good academic standing 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 http://BengalWeb.isu.edu.

Current students and students who have attended since the Summer 2008 semester may also access their unofficial transcripts at http://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 or call (208) 282-2919 for more information. 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. The transcript ordering fee is $5. An additional $5 fee is charged for rush orders, which are processed within 24 working hours. Faxed requests are not accepted, but a requested transcript may be sent to a fax number rather than to a mailing address.

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>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>4.30</td>
<td>excellent performance</td>
</tr>
<tr>
<td>A</td>
<td>4.00</td>
<td>excellent performance</td>
</tr>
<tr>
<td>A-</td>
<td>3.70</td>
<td>good performance</td>
</tr>
<tr>
<td>B+</td>
<td>3.30</td>
<td>good performance</td>
</tr>
<tr>
<td>B</td>
<td>3.00</td>
<td>good performance</td>
</tr>
<tr>
<td>B-</td>
<td>2.70</td>
<td>good performance</td>
</tr>
<tr>
<td>C+</td>
<td>2.30</td>
<td>adequate performance</td>
</tr>
<tr>
<td>C</td>
<td>2.00</td>
<td>adequate performance</td>
</tr>
<tr>
<td>C-</td>
<td>1.70</td>
<td>adequate performance</td>
</tr>
<tr>
<td>D+</td>
<td>1.30</td>
<td>marginal performance</td>
</tr>
<tr>
<td>D</td>
<td>1.00</td>
<td>marginal performance</td>
</tr>
<tr>
<td>D-</td>
<td>0.70</td>
<td>marginal performance</td>
</tr>
<tr>
<td>F</td>
<td>0.00</td>
<td>unacceptable performance</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, 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/NP grades are given in courses taken under the pass/no-pass option. This option is offered as an inducement for students to take courses outside their major curriculum. The following restrictions apply: the option applies only to undergraduate courses; the option must be declared using a schedule change card signed by the instructor and the department no later than the last day to add or drop courses; credits earned under the option will not satisfy specific graduation requirements except that they may be counted towards total credits required; students taking a course under this option must comply with the established prerequisites or obtain the permission of the instructor; students may not register for more than one P/NP course per semester.

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

Satisfactory/Unsatisfactory
S/U grades are awarded in such courses as 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 Undergraduate 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 course for which an X grade is reported.

Withdrawal Grades
A student may drop a course within the add/drop period; and 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.

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 1.75 up to 25 credits and an Idaho State University GPA of 2.0 after earning 26 or more credits.

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 institution substitute for courses at Idaho State University that fulfill general education goals;

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.

**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 does not meet minimum requirements. To maintain “academic satisfactory progress” and avoid probation and/or academic dismissal, a student who has completed up to 25 credits (including transfer credits) must maintain a minimum Idaho State University GPA of 1.75 and a student with 26 or more credits must maintain an Idaho State University GPA of 2.0.

**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 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 Admissions section of this catalog). A maximum of 32 credits may be earned by non-degree-seeking students.

**Undergraduate Student Academic Difficulty and Dismissal Policy**

**Academic Probation**

To maintain “academic satisfactory progress” and avoid academic probation, an undergraduate student who has attempted 25 or fewer credits (including transfer credits) must maintain a minimum Idaho State University GPA of 1.75 and an undergraduate student who has attempted 26 or more credits must maintain an Idaho State University GPA of 2.0.

At the end of any semester, undergraduate students whose cumulative Idaho State University GPA does not meet the minimum requirements will be placed on Academic Warning, limited to attempting 13 credits for the next semester of attendance, and required to complete the online probation workshop.

Undergraduate students on Academic Warning who do not earn a 2.00 semester GPA (and their cumulative ISU GPA does not meet minimum requirements) will be placed on Probation One, limited to attempting 9 credits for the next semester of attendance, required to complete the online probation workshop, and required to meet with their academic advisor of record prior to registering for classes.

Undergraduate students on Probation One who do not earn a 2.00 semester GPA (and their cumulative ISU GPA does not meet minimum requirements) will be placed on Probation Two, limited to attempting 6 credits for the next semester of attendance, required to complete the online probation workshop, and required to meet with their academic advisor of record prior to registering for classes.

Undergraduate students on Academic Warning, Probation One, or Probation Two who attain a semester GPA of 2.0 or higher, but whose cumulative ISU GPA is still below the minimum required for their class level, will continue on Academic Warning or Probation (One or Two) with the corresponding credit limitation of 13, 9, or 6, as specified above.

Undergraduate students on Academic Warning, Probation One, or Probation Two who attain a cumulative ISU GPA higher than the minimum required for their class level are automatically removed from warning or probation.

Undergraduate students are notified at mid-quarter as to whether they are earning below satisfactory grades in any class. The undergraduate students’ advisors will also receive this information so they may work with the undergraduate students to try to prevent probationary status.

**Academic Dismissal**

Undergraduate students on Probation Two will be dismissed from the University if they obtain a semester GPA of less than 2.0 (and their cumulative Idaho State University GPA does not meet minimum requirements) unless the undergraduate student is a freshman and has not attempted 12 or more Idaho State University credits (not including withdrawals).
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 Office of the Registrar 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 at the front of this catalog 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 Class Schedule for dates):**

To initiate a withdrawal from a class prior to the deadline, a student may use BengalWeb. In extreme cases where the student does not have the ability to access BengalWeb, the Office of the Registrar will accept a fully completed Schedule Change card.

To withdraw from the University (withdraw from all classes) prior to the deadline, the student may use BengalWeb and withdraw from all classes. In extreme cases where the student does not have the ability to access BengalWeb, the Office of the Registrar will accept a Complete Withdrawal Permit. Students are encouraged to meet with an advisor before withdrawing completely.

**After Withdrawal Deadline (see Class Schedule 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.) 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 (consult the Academic Calendar), a student first needs to completely withdraw from all classes through the Office of the Registrar (via a paper form or BengalWeb). 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 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 ISU Undergraduate Catalog. If you wish to initiate an appeal for refund of fees, please contact Financial Services at 282-2287.

If the complete withdrawal deadline (consult Class Schedule) 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
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.

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
- National Student Exchange
- 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 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 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 goals in the General Education Requirements at the discretion of the departments whose courses satisfy those goals. 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/cte/ or by contacting the Counseling and Testing Center at Idaho State University at (208)-282-2130.

Counseling and Testing Center, Graveley Hall, 3rd Floor South
921 S 8th Ave Stop 8027
Pocatello, ID 83209-8027
Information

General

• General education policies are as follows:
  • Students may challenge a course through examination by obtaining approval through petition, and 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 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:

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 goals in the General Education Requirements. Refer to the section describing College Level Examination Program credit in this catalog 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.

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 16 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 a 2.0 GPA and must be enrolled in the semester in which credit is awarded. ELA credit is available only for those academic subjects offered at Idaho State University.

Required fees include an evaluation fee of $75 per subject field plus the credit recording fee of $15 per credit awarded.

The complete process and procedures that are required for documenting and evaluating experiential learning were developed in consultation with the Northwest Commission on Colleges and Universities and are available from the Office of the Registrar at the address below.

Experiential Learning Assessment
Office of the University Registrar
Museum Building, Room 319
921 S 8th Avenue Stop 8196
Pocatello, ID 83209-8196
(208) 282-2599

National Student Exchange

The National Student Exchange (NSE) is an opportunity to attend one of over 190 colleges and universities across the U.S. and Canada (including Guam, Puerto Rico, and Virgin Islands) for up to one calendar year while paying in-state tuition and fees. To be eligible to apply, students must be enrolled at Idaho State University full time with at least a minimum 2.5 GPA in the semester prior to exchange and have at least sophomore status while on exchange. There is a nonrefundable application fee, and students pay either Idaho State University’s or the host school’s in-state tuition and fees, plus room, board, and transportation to and from the host campus, applying for financial aid accordingly. Full credit is given for work satisfactorily completed while on exchange, and grades earned on exchange are computed into the student’s Idaho State University cumulative GPA. Prior to the exchange, the student reaches an advising agreement with his/her academic advisor and evaluations are completed. NSE students are Idaho State University students studying on other campuses, and earn resident credit. For more information, contact:

National Student Exchange Coordinator
Diversity Resource Center
Student Union Building, 3rd floor
921 S 8th Ave Stop 8038
Pocatello, ID 83209-8038
Phone: (208) 282-4320

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 Politecnica 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, 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, 3300, 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
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 University Studies

Bachelor of Applied Science or Bachelor of Applied Technology

The Bachelor of Applied Science (BAS) and the Bachelor of Applied Technology (BAT) degrees are interdisciplinary degrees designed specifically for students who have completed Associate of Applied Science (AAS) degrees approved by the Idaho State Board of Education. The purpose of these degrees 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. These degrees build 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 and BAT degrees are 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/BAT degree includes the following credit requirements:

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Robotics and Communication Systems Engineering Technology</th>
<th>Academic Coursework**</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Professional-Technical credits applied toward the BAS/BAT degree</strong>*</td>
<td>76 (all lower division credits awarded; 18 upper division credits awarded; coursework completed for A.A.S degree)</td>
<td>18 (all upper division credits earned beyond coursework completed for the A.A.S degree)</td>
</tr>
<tr>
<td><strong>General Education credits of which will be completed in the A.A.S.</strong></td>
<td>Approximately 32</td>
<td>Approximately 34</td>
</tr>
<tr>
<td><strong>TOTAL MINIMUM CREDITS REQUIRED</strong></td>
<td>120</td>
<td>120</td>
</tr>
</tbody>
</table>

*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.

**A minimum of 12 of these credits must support the AAS的技术 coursework. All BAS/BAT students must earn at least 55 credits in academic coursework for graduation. No more than 52 credits of the academic coursework may be from the College of Business. An 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.

After completing a minimum of 15 credit hours of BAS/BAT general education requirements and one semester of the technical program, the BAS/BAT student develops an individualized degree plan in consultation with both academic and technical advisors assigned to the student by the BAS/BAT 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/BAT Committee.

College of Technology Student Services
RFC Building (Bldg #48)
(208) 282-3939

Bachelor of Science in Health Science

The objective of the Bachelor of Science in Health Science (B.S.H.S.) program is to allow students who have graduated from 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 their associate degree program advisors to ensure that the courses they plan to take will meet the students’ specific career goals.

Students pursuing the Bachelor of Science in Health Science degree must complete all Objectives in the General Education Requirements.

A student applying for this degree program must be a graduate of or be enrolled in a health occupations program that awards an associate degree. Out-of-state associate degrees must be evaluated for meeting the Idaho State Board of Education standards. If the associate degree is over 5 years old, the degree must be evaluated for currency in the technical field. Students with an Associate of Applied Science degree may transfer up to a maximum of 50 credits from this degree (all lower division credits).

See a complete description of this degree in the Division of Health Sciences section of this catalog.

Bachelor of University Studies

The Bachelor of University Studies (BUS) is an interdisciplinary degree designed for students whose educational and career goals are not addressed by traditional degree programs offered at Idaho State University. Formal application to the BUS program requires completion of a minimum of 24 semester hours, a 2.5 cumulative GPA, and an application packet that includes a statement of educational and career goals, a rationale for an individualized program of study, and a proposed selection of courses to meet stated goals. The BUS Committee will review and approve all applications. Once the BUS Committee grants approval for admission to candidacy, an advisory committee is appointed to assist the student in refining a program of study. Completion of US 4490
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 College of Arts and Letters.

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

ELS Language Center

Gordon E. Clark, Director

Continuing Education Building
1001 N. 7th Ave. Stop 8084
Pocatello ID 83209-8084
(208) 282-5201

Idaho State University’s partner in intensive English-language instruction, ELS Language Center, is located in the Continuing Education and Conference Services building. Founded in 1961, ELS Language Centers is the oldest and largest U.S.-based intensive English as a Second Language (ESL) program. Since its inception, ELS has assisted well over a quarter million people in learning U.S.-style English. Affiliated with Berlitz International since 1997, ELS currently has more than 50 centers in the U.S. and another 33 schools in other countries.

As an intensive, preparatory ESL program, ELS supplements Idaho State University’s existing English for Speakers of Other Languages (ESOL) program housed in the Center for Teaching and Learning. The ESOL program provides tutorial and other support services for international students already enrolled at Idaho State University. ELS, by contrast, serves as an initial point of entry for other international students who seek full-time English-language instruction, and who intend to complete this training to enroll at Idaho State University or another institution of higher education.

Visit ELS at Idaho State University on the Web at http://www.els.edu/Pocatello

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

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

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 Sci-
ORAU’s Office of Partnership Development seeks opportunities for partnerships and alliances among ORAU’s members, private industry, and major and minor corporations. The office seeks partnerships with federal agencies, state governments, and universities. ORAU’s Office of Partnership Development is responsible for identifying and implementing partnerships and collaborations that enhance ORAU’s programs and services. ORAU’s Office of Partnership Development is also responsible for identifying and implementing opportunities for the transfer of knowledge and technology from ORAU’s research facilities to the private sector.

A comprehensive listing of these programs and other opportunities, their disciplines, and details on locations and benefits can be found in the ORISE Catalog of Education and Training Programs, which is available at www.orise.gov/orise/edcnotes.htm, or by calling either of the contact persons below.

For more information about ORAU and its programs, visit the ORAU website at www.orau.gov or contact:

Dr. Thomas F. Gesell
Professor of Health Physics
ORAU Counselor for Idaho State University
(208) 282-2350

or

Monnie E. Champion
ORAU Corporate Secretary
(865-576-3306)

**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. For further information, contact:

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

or

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

**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 specific 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/
Idaho State University Outreach

Summer Programs

During the summer, Idaho State University offers people from pre-schoolers to senior citizens a variety of classes, workshops, camps, activities, cultural events, and learning experiences. The primary goal of the summer term is to give variety and flexibility to the instructional programs of the University, while providing a quality education. Idaho State University’s dedicated faculty and staff continue their commitment to excellence in teaching throughout the summer months.

The summer term is convenient—courses are accelerated (offered in 4-, 6-, and 8-week sessions with many shorter courses available), giving students the flexibility to work and make other plans. These summer sessions are open to all students enrolled in degree or non-degree programs, high school graduates, students enrolled at other institutions and individuals in the community interested in courses for fun, personal enrichment, or professional advancement.

Whether your goals are personal, professional, or strictly academic, there is something for everyone at Idaho State University in the summer. See the Class Schedule (https://ssb.isu.edu/bprod/bwckschd_p_disp_dyn_schd) or the Summer Activities web page (http://www.isu.edu/union/summer/) for ideas.

Distance Learning

Multiple technologies allow Idaho State University to host an active distance education program and honor our commitment to provide high quality educational programs statewide. Using video classrooms located throughout the University’s service area, Idaho State University offers live interactive college classes through compressed video technology.

Idaho State University also offers web-based distance education in many academic areas, both online and as a supplement to compressed video and traditional classroom settings.

Idaho State University coordinates reception of teleconferences via satellite on a daily basis and takes advantage of Pocatello’s commercial cable system to program an educational access channel, in cooperation with the local school district.

Detailed information on Idaho State University’s distance education classes and programming is available online at http://www.isu.edu/departments/media/disted.

Idaho State University Education Centers

Idaho State University has education centers throughout the state, with offices in Idaho Falls, Meridian, and Twin Falls.

Idaho State University Idado 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
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 www.isu.edu/departments/ifche.

Idaho State University–Meridian

Dean, Academic Programs:
Dr. Bessie Katasilometes

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

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.
Information

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

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 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.

Division of Continuing Education and Conference Services

Ms. Victoria Bañales, Director
Division of Continuing Education and Conference Services
1001 N. 7th Ave. Stop 8062
Pocatello ID 83209-8062

(208) 282-3155
e-mail to: 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/online.shtml.

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, inservice, 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) and Idaho Falls (Friends for Learning).

Student Services
Affirmative Action/Equal Opportunity & Diversity
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

Associated Students of Idaho State University--ASISU
The Associated Students of Idaho State University (ASISU) is the representative body for students, and functions through the leadership of the student body president, vice president, Student Senate, and numerous committees. These officers are responsible for all activities sponsored by the Associated Students. Applications for committee membership are available in the ASISU Administrative Offices. ASISU also contracts with a local law firm to offer free legal counseling to students. Detailed information on student government can be found in the Student Handbook.

Athletics Department
Holt Arena
http://isubengals.cstv.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.

Campus Recreation Department
Campus Recreation Office
Recreation Center, Room 360
921 S 8th Ave Stop 8105
(208) 282-3516
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 at the web site at www.isu.edu/camprec.
Career Center
418 Museum Building
921 S 8th Ave Stop 8108
(208) 282-2380
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.

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 teambuilding 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
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.

Diversity Resource Center
Rendezvous Building, Room 129
921 S 8th Ave Stop 8036
Pocatello ID 83209-8036
(208) 282-3142

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

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.

International Programs and Services
Museum Building, Room 319
921 S 8th Ave Stop 8270
(208) 282-2941

The office of International Programs and Services provides assistance to the international students, faculty, and scholars on campus as well as provides 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 predeparture 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**

Graveley Hall, North Wing
921 S 8th Ave Stop 8141
Pocatello ID 83209-8141
(208) 282-2805
24-hour crisis line: (208) 251-HELP (4357)
http://www.isu.edu/andersoncenter/

Through its mission to increase awareness and promote open dialogue about gender, the Janet C. Anderson Gender Resource Center serves as the focal point on campus for the consideration of gender issues.

The Center, including its staff, interns, and volunteers, currently provides:

- **Educational Programming:** The Center organizes special activities to mark theme-related months throughout the year, including Women’s History Month (March), Sexual Assault Awareness Month (April), Domestic Violence Awareness Month (October) and special days such as National Coming Out Day (October 11) and World AIDS Day (December 1). The Center also hosts discussion groups and sponsors entertainment-oriented events.

- **Support of Gender-Related Research:** During spring semester, we host the annual Art of Gender in Everyday Life academic conference. The Center also sponsors invited lectures on an irregular basis.

- **Services:**
  - **Project Hope:** Staff provides educational trainings on sexual and domestic violence and stalking as well as coordinate awareness events, including Take Back the Night (April) and Walk a Mile in Her Shoes (October).
  - **Project W.I.S.E. (Women’s Issues and Sexual Empowerment):** Aimed primarily at heterosexual women between the ages of 18 and 25, a population determined to be at an increased risk for HIV, W.I.S.E. seeks to empower women to make better choices about their sexual activities.
  - **Resources:** The Center 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 related topics, including domestic violence, sexual assault, stalking, healthy relationships, HIV/AIDS (including prevention), diversity, and other topics.

The Anderson Center 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 Center, whether staff, intern, or volunteer, strives to ensure that all Center 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 Center are limited only by the imaginations of those who choose to participate.

**Leadership Development Program**

The Idaho State University Leadership Program was created to help ISU students stretch themselves to more fully develop their potential as leaders for today and tomorrow. The Leadership Program offers leadership development workshops; publishes a monthly electronic newsletter that features a “Tiger by the Tail” student leader profile; maintains a leadership library of books and audio-visual resources; works with living-learning communities within university housing such as First Year Involvement Scholars and Women Involved in Leadership and Learning (WILL); and coordinates a campus-wide Leadership Week which provides workshops and speakers and showcases leadership opportunities on campus. In addition, a new 21-credit Leadership Studies Minor is now available as a collaboration between Student Affairs and the College of Arts and Letters. For more information about the LEAD program, contact:

Jim Fullerton,
Leadership Program Director
(208) 282-2794
fulljim@isu.edu
www.isu.edu/lead

**Outdoor Adventure Center**

Pond Student Union, First Floor
(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 [www.isu.edu/outdoor](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, St. John’s Community (Roman Catholic), and the University Bible Church.

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, Episcopalian, 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

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

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
(See Career Center)
(208) 282-2778

Student Health Center
Student Health Center
921 S 8th Ave Stop 8311
(208) 282-2330

All students are eligible to see a care provider at the Student Health Center at no charge for the basic office visit. Almost all insurances are accepted for other charges. Student Health Insurance is not required to receive care.

The Student 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 Student Health Center bills private insurance as well as student insurance when billable services such as laboratory tests, X-ray studies, special procedures, etc. are performed. Student Health 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 Student Health Center is located at 990 Cesar Chavez Avenue—across from Gravelley Hall.

Student Health Center Pharmacy
Student Health Center Pharmacy
990 S 8th Avenue
Mail to:
921 S 8th Ave Stop 8311
(208)-282-3407

The Student Health Center 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 Student Pharmacy while they are attending Idaho State University. All Idaho State University students, both full and part-time, and their spouses may use the Student Pharmacy. A valid Bengal ID card is required to obtain services.

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.

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.

University Counseling and Testing Services
In Pocatello:
Gravelley Hall, Top Floor, South Wing
921 S 8th Ave Stop 8027
(208) 282-2130
In Idaho Falls:
1784 Science Center Drive
Room 223 Bennion SUB
Stop 8150
(208) 282-7750

Internet:
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-ups, 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 are 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 online 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/testing.html

Veterans’ Benefits
For any information concerning veterans’ educational benefits, rights, and opportunities, contact:
Veterans Coordinator
Office of the Registrar
921 S 8th Ave Stop 8196
Pocatello, ID 83209-8196
(208) 282-2676
http://www.isu.edu/areg/veterans/

The Veterans Sanctuary Program
The program, which began fall semester 2009, aims to make ISU one of the most “veteran-friendly” campuses in the United States by simplifying access to existing services, customizing services for veterans when needed, and supporting our growing community of student veterans. The Sanctuary is ISU’s response to the urgent need for veterans’ services on college campuses voiced by veterans’ groups throughout the country. During the summer of 2011, we opened the first college-based veterans’ support center in Idaho, which is located on the third floor of the Pond Student Union Building on the Pocatello campus.

From the beginning, the Sanctuary has been built for veterans by veterans. Rather than directing our students to a website, we want to sit and talk with them about their individual needs so we can provide the best support possible. If students are lost or need to find a particular campus location, we will walk them there rather than handing them a map. We offer assistance with education benefits, free tutoring, veterans’ academic and technical advising, scholarships, registration events which streamline the registration process and provide access to campus services, resources for disabled vets, and much more. We also work closely with the ISU Armed Forces Veterans Club, a student-run organization, which has chapters on both the Pocatello and Idaho Falls campuses. For more information, contact Director Casey Santee at (208) 282-4298.

Wellness Center
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, aquaerobics, step aerobics, yoga, cardiovascular, 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.

Wellness Center on campus.

Wellness Center on campus.

Wellness Center on campus.
All-University Academic Services

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/
email: 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.

Disability Services

Todd DeVries, Director
Rendezvous Building, Room 125
921 S 8th Avenue Stop 8121
Pocatello ID 83209-8121
(208)282-3599
www.isu.edu/disabilityservices
email: 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 civil rights protection to people with disabilities who 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.

Please contact Todd DeVries, Director, for more information.

Central Academic Advising (CAA)

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/
email: 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 their first two semesters of attendance at Idaho State University and for transfer students for their 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 (isu.edu/advising/contact.shtml) to schedule a FAR session. The two freshman FAR sessions are available online at: www.isu.edu/advising/far.shtml; www.isu.edu/advising/2far.shtml. The transfer FAR session is only available online at: www.isu.edu/advising/tfar.shtml.

Mandatory Advising at Idaho State University is not intended to replace College or Faculty advising.

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/
email: 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.

Academic Programs (ACAD) Courses
ACAD 1101 College Learning Strategies 1 credit.
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, W

ACAD 1102 First Year Seminar 1 credit.
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 academic areas except writing and math, which are handled through the Writing and Math Centers. Students may request 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.

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.

Native American Student Services
Johanna Jones, Director
Museum Building, Room 407
921 S 8th Ave Stop 8012
Pocatello, ID 83209-8012
(208) 282-4429
http://www.isu.edu/drc/naas/index.shtml
Email: jonejoha@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.
TRiO Student Services
Sari Byerly, Director
Museum Building, Room 434
921 S 8th Ave Stop 8345
Pocatello, ID 83209-8345
(208) 282-3242
http://www.isu.edu/trio/
etail: trio@isu.edu

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 are 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. 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 postsecondary 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 tutor/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, Century, Highland, Pocatello, Shoshone-Bannock, Snake River High School.

POST-SECONDARY PROGRAM
Student Support Services (SSS) is a postsecondary 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 Honors Program
Peter Vik, Ph.D., Director
Rendezvous Building, Room 323
921 S 8th Ave Stop 8010
Pocatello ID 83209-8010
Office: (208) 282-3662
e-mail: 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 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 Curriculm fulfills many of the General Education Requirements.

Admission

Admission to the University Honors Program is competitive. Please check 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 at 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 Honors Seminar (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 1111L, CHEM 1112 and 1112L, COMM 1101, ECON 2201, PHIL 1101 and 1103, POLS 1101, and PSYC 1101). Honors Distinction is noted on the transcript and 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 1111L, CHEM 1112 and 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:

University Honors Program
Cynthia D. Hill, Ph.D., Director

921 S 8th Avenue Stop 8010
Pocatello ID 83209-8010
(208) 282-4945
honors@isu.edu

University Honors Program Curriculum

Required Courses:

| HONS 1101 | Honors Humanities I | 3 cr |
| HONS 1102 | Honors Humanities II | 3 cr |

Together, the two courses above satisfy a General Education Objective.

Honors Sections of the Following Courses:

| ANTH 2237 | People and Cultures of the Old World | 3 cr |
| BIOL 1101, 1101L | Biology I, and Lab | 4 cr |
| CHEM 1111, 1111L | General Chemistry I, and Lab | 5 cr |
| PHIL 1101 | Introduction to Philosophy | 3 cr |
| ECON 2201, Principles of Macroeconomics | 3 cr |

Honors Sections of other academic courses may be offered as opportunities arise.

Third and Fourth Years

| HONS 3391 | Honors Interdisciplinary Seminar | 2 cr |
| HONS 4493 or Departmental Independent Study | Honors Project or Thesis | 1-6 cr |

Honors Courses

| HONS 1101 | Honors Humanities I 3 credits |
| HONS 1102 | Honors Humanities II 3 credits |

A writing-intensive interdisciplinary course examining relationships between the arts and letters from the Classical Age through the Enlightenment. With a grade of C- or better, satisfies Objective 1 of the General Education Requirements.

F

HONS 1103 | Honors Social Science I 3 credits |
| HONS 1104 | Honors Social Science II 3 credits |

A writing-intensive interdisciplinary course examining the relationships in the social sciences from the nineteenth century to the present. S
HONS 2201 Honors Science I 4 credits. First of a two-course sequence. An interdisciplinary examination of the processes by which scientific knowledge is gained in biology, physics, chemistry, and geology and how that knowledge influences our world, especially human societies. Includes laboratory. PREREQ: MATH 1108 or equivalent. F

HONS 2202 Honors Science II 4 credits. Second course in the introduction to science for honors students. A continuation of the concepts developed in HONS 2201. Includes laboratory. PREREQ: MATH 1108 or equivalent. S

HONS 3391 Honors Seminar 1 credit. 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 credit. 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 credits. Supervised by a committee of at least two faculty members and approved by the University Honors Program director. DEPT 4493H will be used when possible. May be repeated for up to 6 credits. PREREQ: Permission of instructor and Honors Program director.
College of Arts and Letters

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:
Ron Hatzenbuehler, Ph.D.

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 general 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 are described in the Academic Information section of the 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 Admissions portion of the General Information section of the 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. Ron Hatzenbuehler, History / General Studies
Dr. Bruce Loeb, Communication and Rhetorical Studies
Dr. Sean Anderson, Political Science
Dr. Tesa Stegner, Economics

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:

8 of the 9 General Education Objectives (min) 36 cr
Upper division courses in the fine arts and humanities and/or social and behavioral sciences 20 cr
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 cr
Electives from across the University 44 cr

TOTAL: 120 cr

Associate of Arts in General Studies
This degree requires completion of the General Education Requirements as outlined for the Bachelor of General Studies degree (above); 3 additional lower division credits in the fine 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 in the Credit Requirements section of the catalog) to total 64 credit hours.

Department of Anthropology
Chair and Professor: Trawick
Professors: Cartwright, Loether, Lobse
Research Professor: Maschner
Associate Professor: Reedy-Maschner
Assistant Professors: Dudgeon, Peterson
Native Language Instructor, Senior Lecturer: Gould
Assistant Lecturers: Peterson, Thomas
Research Affiliate Faculty: Dean, Guenter, Hansen, Woods
Emeriti: Holmer, Stocks

Mission
The mission of the Department of Anthropology is to research and teach about humankind the world over from the distant past to the present. Anthropology consists of subfields that specialize in the human past, human biology and evolution, language, society, and culture, and provides cross-cultural, environmental, international, and global perspectives on past and present human behavior. At Idaho State University, an important part of the anthropology 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 in Anthropology. For a full description of the M.A. and M.S. degrees, refer to the Graduate Catalog. The Anthropology major provides training in all four subdisciplines in the field, including archaeology, biological anthropology, anthropological linguistics, and sociocultural anthropology. The department also offers minors in Anthropology, American Indian Studies, Latino Studies, and Linguistics, and opportunities for specialization in archaeological science, ecological, medical, and applied anthropology; language preservation; biocomplexity; informatics; 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, explanations, 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 or diachronic (or combination of the two) comparative methods.
5. Write a competent senior research project.

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 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:
ANTH/ENGL/LANG 1107 The Nature of Language 3 cr (satisfies General Education Objective 7)
ANTH 2203 Introduction to Archaeology 3 cr
ANTH 2230 Introduction to Biological Anthropology 3 cr
ANTH 2250 Introduction to Sociocultural Anthropology 3 cr

TOTAL: 12 cr

Required Upper Division Courses:
ANTH 4401 History and Theory of Anthropology 3 cr
ANTH 4492 Senior Seminar 3 cr
ANTH 4495 Department Colloquium 1 cr

Plus one of the Following:
ANTH 4403 Method and Theory in Archaeology 3 cr
ANTH 4430 Human Evolution 3 cr
Any upper division ANTH course in Linguistics 3 cr

TOTAL: 10 cr

In addition:
Upper Division Anthropology Elective Courses 9 cr
Writing, statistics, logic, language, museum, or similar specialty courses as determined with major advisor approval 6 cr

TOTAL: 15 cr
Minor in American Indian Studies

**Required Courses**

- ANTH 2238 People and Cultures of the New World (3 cr)
- ANTH/HIST 2258 Native American History (3 cr)
- ANTH/ENGL 4453 American Indian Literature (3 cr)
- TOTAL: 9 cr

**Plus FOUR of the following courses:**

- ANTH/SHOS 1101 Elementary Shoshoni I 4 cr
- ANTH/SHOS 1102 Elementary Shoshoni II 4 cr

(either of the 2 courses above partially satisfies General Education Objective 4)

**ANTH 2206 Indigenous Traditional Parenting 3 cr**

- ANTH 3301 Introduction to Shoshoni Folklore 3 cr
- ANTH 4406 American Indian Health Issues 3 cr
- ANTH 4421 Federal Indian Relations 3 cr
- ANTH 4452 American Indian Verbal Arts 3 cr
- ANTH 4454 Survey of American Indian Languages 3 cr
- ANTH 4472 Native American Arts 3 cr
- ANTH 4474 Topics in Indian Education 3 cr
- ANTH/POLS 4478 Federal Indian Law 3 cr
- ANTH/POLS 4479 Tribal Governments 3 cr
- ANTH 4489 Topics in American Indian Studies 3 cr

Minimum Total: 21 cr

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Minor in Anthropology

**Required Courses**

- ANTH/ENGL/LANG 1107 *The Nature of Language* (satisfies General Education Objective 7) 3 cr
- ANTH 2203 Introduction to Archaeology 3 cr
- ANTH 2205 Introduction to Archaeology Laboratory 1 cr
- ANTH 2230 Introduction to Biological Anthropology 3 cr
- ANTH 2250 Introduction to Sociocultural Anthropology 3 cr

**IN ADDITION:**

- Upper Division Anthropology Courses 9 cr

TOTAL: 22 cr

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Minor in Latino Studies

**Required Courses**

- ANTH 2250 Introduction to Sociocultural Anthropology 3 cr
- ANTH 2239 Contemporary Latinos in the U.S. 3 cr
- ANTH 2239 Peoples of Mexico Through Film 3 cr
- ANTH 2239 Culture South of the Border 3 cr
- ANTH 2239 Ancient Meso America 3 cr
- ANTH 2239 Other approved classes (any of the 5 courses above satisfies General Education Objective 9) 3 cr
- ANTH 4487 Ethnographic Fieldschool* (3-6 cr)
- ANTH 4489 Latin American Indigenous Resource Management 3 cr
- HIST 4450 Golden Age Castile 3 cr
- HIST 4460 The Global Hispanic Monarchy 3 cr
- SPAN 3342 Survey of Latin American Literature and Civilization 3 cr
- *When offered in Mexico, Guatemala and other Latin American countries

**Total: 21 credits**

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Plus 6 credits from the following for a total of at least 21 credits:

- ANTH 2239 Contemporary Latinos in the U.S. 3 cr
- ANTH 2239 Peoples of Mexico 3 cr
- ANTH 2239 Culture South of the Border 3 cr
- ANTH 2239 Ancient Meso America 3 cr
- ANTH 2239 Other approved classes (any of the 5 courses above satisfies General Education Objective 9) 3 cr
- ANTH 4487 Ethnographic Fieldschool (3-6 cr)
- ANTH 4489 Latin American Indigenous Resource Management 3 cr
- HIST 4450 Golden Age Castile 3 cr
- HIST 4460 The Global Hispanic Monarchy 3 cr
- SPAN 3342 Survey of Latin American Literature and Civilization 3 cr

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Minor in Linguistics

**Required Courses**

- ANTH/LANG/ENGL 1107 Nature of Language 3 cr
- ANTH/LANG 4455 Phonetics 3 cr
- ENGL 4484 Rotating Topics in Linguistics 3 cr
- PHIL 4410 Philosophy of Language 3 cr
- Two years of a foreign language 16 cr

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

- ANTH/LANG 3367 Language in the United States 3 cr
- ANTH 4450/ENGL 4488 Socio-linguistics 3 cr
- ANTH 4452 Survey of American Indian Languages 3 cr
- ANTH/LANG 4455 Phonetics 3 cr
- ANTH/LANG 4456 Introduction to Phonology and Morphology 3 cr
- ANTH 4458 Historical Linguistics 3 cr
- ANTH 4459 Linguistic Field Methods 3 cr
- ANTH/LANG 4487 Survey of Indo-European Languages 3 cr
- ANTH/ENGL/LANG 4484 Topics in Linguistics 3 cr
- ENGL 2280 Grammar and Usage 3 cr
- ENGL 4481 Advanced Grammar 3 cr
- ENGL 4483 Varied Speeches of American English 3 cr
- ENGL 4486 History of the English Language 3 cr
- LANG 4488 Comparative Philology 3 cr
- PHIL 2201 Introduction to Logic (Satisfies General Education Objective 7) 3 cr
- PHIL 4410 Philosophy of Language 3 cr

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Anthropology Courses

- **ANTH 1100 General Anthropology 3 credits.** Introduction to fields of anthropology: physical anthropology, archaeology, linguistics, and ethnology, and to biological and cultural development of humans. Partially satisfies Objective 6 of the General Education Requirements. F, S, Su
- **ANTH 1101 Elementary Shoshoni I 4 credits.** 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 Intermediate Shoshoni II 4 credits.** Furthering basic communication skills and grammar of Shoshoni and introduction to Shoshoni culture. Equivalent to SHOS 1102. Partially satisfies Objective 4 of the General Education Requirements. S
- **ANTH 1103 Language 3 credits.** 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 2201 Intermediate Shoshoni I 4 credits.** 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 2201. Satisfies Objective 9 of the General Education Requirements. F
- **ANTH 2202 Intermediate Shoshoni II 4 credits.** 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/SHOS 2201 or equivalent. Satisfies Objective 9 of the General Education Requirements. S
- **ANTH 2203 Introduction to Archaeology 3 credits.** Introduction to basic methods, data and concepts of archaeology. S
- **ANTH 2206 Indigenous Traditional Parenting 3 credits.** 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 credits.** Refresher in Shoshoni words and phrases for those with previous exposure to the language and culture. S
- **ANTH 2212 Introduction to Folklore/Oral Tradition 3 credits.** 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 credits. Introduction to human biology, including human origins, evolution, human adaptation, and diversity. F

ANTH 2233 Sex, Culture and Human Evolution 3 credits. Examination of worldwide variation in human sexuality from an anthropological and evolutionary perspective. D

ANTH 2237 Peoples and Cultures of the Old World 3 credits. Examination of human social and cultural diversity from different parts of the Old World. Topics include social structure, ecology, religion, politics, and language. May be repeated for up to 6 credits. Satisfies Objective 9 of the General Education Requirements. D

ANTH 2238 Peoples and Cultures of the New World 3 credits. 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 credits. 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 credits. 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 credits. 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 3301 Introduction to Shoshoni Folklore 3 credits. 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 credits. 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 4401 History and Theory of Anthropology 3 credits. 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 credits. Interaction of human biocultural 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

ANTH 4403 Method and Theory in Archaeology 3 credits. 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 credits. 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 credit. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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, W

ANTH 4413 Old World Archaeology 3 credits. 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 credits. 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 credits. 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 credits. 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 credits. Effects of processes which modify organisms between death and the time the usually fossilized remains are studied. Emphasis on vertebrates. Cross-listed as BIOL 4439, GEOL 4439. PREREQ: Permission of instructor. AS

ANTH 4449 Qualitative Research Methods 3 credits. 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 Socio-linguistics 3 credits. 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/ENGL/LANG 1107, ENGL 2280 or ENGL 2281, or permission of instructor. F

ANTH 4452 American Indian Verbal Arts 3 credits. Analysis of current theories in the study of oral literature and ethnopoetics, focusing on the oral traditions of American Indians. PREREQ: ANTH/ENGL/LANG 1107 or permission of instructor. AF

ANTH 4453 American Indian Literature 3 credits. 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 credits. History of scholarship, analysis and classification of American Indian languages with emphasis on the languages of a particular phylum or geographical area. PREREQ: ANTH/ENGL/LANG 1107 or permission of instructor. AF

ANTH 4455 Phonetics 3 credits. 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 credits. Phonological theory and analysis; current theories in morphology. Phonological rules, representations, underlying forms, derivations, justifications of phonological analyses; morpho-
ANTH 4457 Survey of Indo-European Languages 3 credits. 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 credits. 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/ENGL/LANG 1107. AS

ANTH 4459 Linguistic Field Methods 3 credits. 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 credits. Practical applications of commonly used statistical analyses in anthropology. PREREQ: MATH 1153 or permission of instructor. AF

ANTH 4464 Analytical Methods 4 credits. Examination of and practical experience in applying advanced quantitative, qualitative, and laboratory methods and analyses. May be repeated for up to 8 credits. PREREQ: ANTH 4463 or permission of instructor. D

ANTH 4472 Native American Arts 3 credits. 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 credits. 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 Law 3 credits. Examination of tribal governments; their relationship with the federal government; sovereignty, jurisdictional conflicts over land and resources; and economic development. Equivalent to POLS 4478. D

ANTH 4479 Tribal Governments 3 credits. 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 4481 Topics in Sociocultural Anthropology 3 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 2230 and ANTH 4449 or permission of instructor. D

ANTH 4489 Topics in American Indian Studies 3 credits. 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 credits. Focused study of an issue in folklore or a particular genre of folklore, including history of the scholarship concerning that issue or genre. Rotating topics. May be repeated for up to 9 credits with different topics. Equivalent to ENGL 4490. R1

ANTH 4491 Archaeology Laboratory Analysis 3 credits. Directed analysis of archaeological remains and report writing. May be repeated for up to 6 credits. PREREQ: Permission of instructor. F, S, W

ANTH 4492 Senior Seminar 3 credits. Integration and application of anthropological theories and methods to current research issues. S

ANTH 4494 Visual Anthropology 3 credits. Documentary and ethnographic filmmaking techniques including story structure, interviewing, audio and lighting, camera handling, composition, P0V, and editing. Anthropic-

cal 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 credit. Presentations of current research issues in Anthropology by faculty and students. S

ANTH 4497 Workshop 1-2 credits. 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

Department of Art

Chair and Professor: Martin Professors: Evans, Warnock Assistant Professors: Adams, Leeuwrik Assistant Lecturer: Popa Adjunct Faculty: Babcock, Cleveland, Feige, Parker, Pirro Emeriti: Brown, Dial, Kovacs

The primary focus of the art program is to develop an aesthetic awareness and technical proficiency in the individual student 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 arts/weaving, ceramics and jewelry/metal. Additionally, papermaking, watercolor, and special topics courses are available. The art major may concentrate in one studio area or work in several areas. In addition, for students majoring in other fields, our program offers minors 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 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.

Admission

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...
Prerequisites

Students who major in art must complete the foundation courses (1100, 1103, 1104, 1105, 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 their freshman year. After completion and upon achieving a 3.0 in these foundation courses, the student may formally declare Art as a major. For Art majors, ART 1100 will be required prior to enrollment in 1101 and 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 for declared art majors.

Senior Presentation

During the last semester of the student’s senior year, he/she must enroll in Senior Presentation, ART 4494. As a requirement for graduation, the student must present an exhibit of work, participate in an oral review, 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 Teacher Education Section of this catalog. 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.

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**

- ART 1100 Survey of Art 3 cr
- ART 1101 History of Western Art I 3 cr
- ART 1102 History of Western Art II 3 cr
  
  (each of the 3 courses above partially satisfies General Education Objective 4)
- ART 1103 Creative Process 3 cr
- ART 1104 Creative Process 3 cr
- ART 1105 Drawing I 3 cr
- ART 1106 Drawing II 3 cr
- ART 4494 Senior Presentation 1 cr

**In addition:** Art electives 27 cr

**TOTAL:** 49 cr

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 Survey of Art 3 cr
- ART 1101 History of Western Art I 3 cr
- ART 1102 History of Western Art II 3 cr
  
  (each of the 3 courses above partially satisfies General Education Objective 4)
- ART 1103 Creative Process 3 cr
- ART 1104 Creative Process 3 cr
- ART 1105 Drawing I 3 cr
- ART 1106 Drawing II 3 cr
- ART 2201 Intermediate Drawing 3 cr
- ART 2223 Introduction to Printmaking 3 cr
- ART 2224 Introduction to Painting and Composition 3 cr
- ART 2225 Introduction to Metals/Jewelry 3 cr
- ART 2261 Introduction to Weaving 3 cr
- ART 2271 Introduction to Ceramics 3 cr
- ART 2281 Introduction to Sculpture 3 cr
- ART 3301 Anatomy Drawing and Painting 3 cr
- ART 3310 Professional Practice and Display 3 cr
- ART 4494 Senior Presentation 1 cr

**In addition:** Upper-division electives: Studio electives 18 cr

**Art history electives*:** 6 cr

**TOTAL:** 73** cr

*Offered every other semester: please check catalog.

**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 Survey of Art 3 cr
- ART 1101 History of Western Art I 3 cr
- ART 1102 History of Western Art II 3 cr
  
  (each of the 3 courses above partially satisfies General Education Objective 4)
- ART 3385 Individual Projects (Art History) 3 cr
- ART 4422 World Arts 3 cr

**Plus 2 of the following:**

- ART 4423 Nineteenth Century Art 3 cr
- ART 4424 Twentieth Century Art 3 cr
- ART 4425 Contemporary Art Forms 3 cr
- ART 4426 Seminar in Art History 3 cr

**TOTAL:** 21 cr

Minor in Studio

**Required Courses:**

- ART 1100 Survey of Art 3 cr
- ART 1101 History of Western Art I 3 cr
- ART 1102 History of Western Art II 3 cr
  
  (each of the 3 courses above partially satisfies General Education Objective 4)
- ART 1103 Creative Process 3 cr
- ART 1105 Drawing I 3 cr

**In addition:**

- Select one course in each of the following groups, and one additional elective (9 credits)

**Two dimensional (2D):**

- ART 2231 Introduction to Printmaking 3 cr
- ART 2241 Introduction to Painting and Composition 3 cr
- ART 2261 Introduction to Weaving 3 cr

**Three dimensional (3D):**

- ART 2251 Introduction to Metals/Jewelry 3 cr
- ART 2271 Introduction to Ceramics 3 cr
- ART 2281 Introduction to Sculpture 3 cr

**TOTAL:** 21 cr

Art Courses

ART 1100 Survey of Art 3 credits. 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

ART 1101 History of Western Art I 3 credits. Study of the visual arts from prehistoric to Gothic times and the cultural influences on art forms. Partially satisfies Objective 4 of the General Education Requirements. F

ART 1102 History of Western Art II 3 credits. Study of the visual arts from the Renaissance to the modern era with comparisons of major movements. Partially satisfies Objective 4 of the General Education Requirements. S

ART 1103 Creative Process 3 credits. 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 credits. 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 1105. F, S

**ART 1105 Drawing I 3 credits.** 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 credits.** 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 credits.** 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 credits.** 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 credits.** Discovery of the photographic process and its evolution to present. Analysis of many recognized masters of photography. Equivalent to MC 2210. Partially satisfies Objective 4 of the General Education Requirements. F, S

**ART 2231 Introduction to Printmaking 3 credits.** 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 credits.** Introduction to methods, materials, and basic concepts of painting. F, S

**ART 2243 Watercolor 3 credits.** Beginning watercolor techniques, color theory, traditional and contemporary subject matter. One field trip required. D

**ART 2251 Introduction to Metals/Jewelry 3 credits.** Introduction to jewelry and metal-smithing in various metals with emphasis on design, basic technical processes and craftsmanship. F, S

**ART 2261 Introduction to Weaving 3 credits.** Procedures and processes involved in dressing the loom. Production of various weaves on the loom and experimentation with woven and constructed textiles. F, S

**ART 2271 Introduction to Ceramics 3 credits.** 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 credits.** Introduction to various methods and materials of sculpture construction, including additive, subtractive, manipulative, and substitution techniques. F, S

**ART 3301 Anatomy Drawing and Painting 3 credits.** 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 credits.** 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 credits.** 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 3331 Intermediate Printmaking 3 credits.** 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 credits.** 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 School Art Methods 3 credits.** Practical techniques and philosophical approaches to teaching art in the middle and high schools. Equivalent to EDUC 3334. PREREQ: 12 hours of studio classes. D

**ART 3341 Intermediate Painting and Composition 1 3 credits.** 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 credits.** 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 credits.** 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 credits.** Experimental work. Individual projects may include stone settings, enameling, anaglirasing, procedure for hinges, anodizing, repousse & riveting. PREREQ: ART 2251. F, S

**ART 3352 Intermediate Metals 3 credits.** Experimental work. Individual projects may include stone settings, enameling, anaglirasing, procedure for hinges, anodizing, repousse & riveting. PREREQ: ART 3351. F, S

**ART 3361 Intermediate Weaving 3 credits.** Experimental work on and off loom, fiber structures and dyeing. PREREQ: ART 2261. F, S

**ART 3362 Intermediate Weaving 3 credits.**
ART 4426 Seminar in Art History 3 credits. Extensive reading and discussion in art history and aesthetics under the supervision of the instructor. May be repeated for up to 6 credits. D


ART 4441 Advanced Painting and Composition I 3 credits. 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 credits. 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 credits. Experimental work. Individual projects may include plastics, electroplating, electroforming, advanced fabrication or raising techniques. PREREQ: ART 3352. F, S

ART 4452 Advanced Metals 3 credits. Experimental work. Individual projects may include plastics, electroplating, electroforming, advanced fabrication or raising techniques. PREREQ: ART 4451. F, S

ART 4461 Advanced Weaving 3 credits. 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 Weaving 3 credits. 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 credits. Individual projects may include ceramic sculpture, mosaics or experimental problems in form and techniques. PREREQ: ART 3371 or ART 3372. F, S, Su

ART 4472 Advanced Ceramics 3 credits. Individual projects may include ceramic sculpture, mosaics or experimental problems in form and techniques. PREREQ: ART 3371 or ART 3372. F, S, Su

ART 4473 Clay and Glaze Calculation 3 credits. 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. D

ART 4474 Kiln Construction 3 credits. 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 credits. Experimental work with an emphasis on scale and environmental problems. PREREQ: ART 3382. F, S

ART 4482 Advanced Sculpture 3 credits. Experimental work with an emphasis on scale and environmental problems. PREREQ: ART 4481. F, S

ART 4490 Experimental Studio 3 credits. 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 credits. Experimental work. Individual projects may include on-loom and off-loom techniques, dyeing processes, basketry, or multilayered fabrics. PREREQ: ART 3391. PREREQ: ART 3391 or permission of instructor. F

ART 4494 Senior Presentation 1 credit. 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 credits. 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

Bachelor of Arts or Bachelor of Science in Communication and Rhetorical Studies

The primary objectives related to the Bachelor of Arts and Bachelor of Science programs in Communication and Rhetorical Studies are to help all students develop 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 construct and evaluate persuasive messages.
5. The ability to use effective information research strategies.
6. An understanding of the role of communication in interpersonal settings.
7. An understanding of the role of communication in group settings.
8. An understanding of the role of communication in organizational settings.
9. An understanding of the role of communication in historical/current events.
10. Knowledge and skill applicable in graduates’ professional lives.
11. Knowledge and skill applicable to graduates’ personal lives.

The Communication and Rhetorical Studies curriculum is structured on the basic assumption that people’s ability to communicate orally in an effective manner is vital to successful social interaction. Two areas of emphasis are offered: Rhetorical Studies and Organizational Communication. The area of Rhetorical Studies is the humanistic study of speech from its origins in ancient Greece to the role of rhetoric in shaping the modern world. Organizational Communication is the social scientific study of the role of communication in the creation of interpersonal, small group, and organizational structures. In both areas of emphasis, our program is designed to meet a fourfold purpose: to study the nature and process of oral communication; to develop the student’s ability to communicate clearly, confidently, and rationally; to understand the critical role of rhetoric in shaping historical events; to understand the methods of the social sciences and ana-
lyze communication situations according to those methods. Students who study in our program receive a broad liberal arts background which may lead to careers in law, business, public relations, management, teaching, the ministry, politics, broadcasting, personnel work, and public administration.

Select one of the following emphases:

**Emphasis in Organizational Communication**

**Required Major Core Courses:**
- COMM 2201 Business and Professional Speaking 3 cr
- COMM 2208 Group Communication 3 cr
- COMM 3305 Argumentation and Debate 3 cr
- COMM 3308 Persuasion 3 cr
- COMM 4408 Communication Theory 3 cr
- COMM 4436 Rhetorical Criticism 3 cr
- COMM 4437 Rhetorical Theory 3 cr
- COMM 4441 Interpersonal Communication 3 cr

**Required Organizational Communication Emphasis Courses:**
- COMM 2254 Organizational Communication 3 cr
- COMM 4454 Management Communication 3 cr

**Organizational Communication Emphasis Electives:**
(Must take 12 credits from the following:)
- COMM 3313 Academic Internship 1-6 cr
- COMM 3355 Nonverbal Communication 3 cr
- COMM 4440 Gender and Communication 3 cr
- COMM 4442 American Rhetoric and Public Address 3 cr
- COMM 4447 Rhetoric of Hitler and Churchill 3 cr
- COMM 4451 Recent Rhetorical Issues 3 cr

**Total: 45 cr**

**Minor in Organizational Communication**

**Required Minor Core Courses:**
- COMM 3305 Argumentation and Debate 3 cr
- COMM 3308 Persuasion 3 cr
- COMM 4441 Interpersonal Communication 3 cr

**Required Organizational Communication Minor Courses:**
- COMM 2254 Organizational Communication 3 cr
- COMM 4454 Management Communication 3 cr

**Organizational Communication Minor Electives:**
(Must take 6 credits from the following):
- COMM 2201 Business and Professional Speaking 3 cr
- COMM 2208 Group Communication 3 cr
- COMM 3313 Internship 1-3 cr
- COMM 3355 Nonverbal Communication 3 cr
- COMM 4408 Communication Theory 3 cr
- COMM 4452 Conflict Management 3 cr

**Total: 21 cr**

**Minor in Rhetorical Studies**

**Required Minor Core Courses:**
- COMM 3305 Argumentation and Debate 3 cr
- COMM 3308 Persuasion 3 cr
- COMM 4441 Interpersonal Communication 3 cr

**Required Rhetorical Studies Minor Courses:**
- COMM 4436 Rhetorical Criticism 3 cr
- COMM 4437 Rhetorical Theory 3 cr

**Rhetorical Studies Minor Electives:**
(Must take 6 credits from the following):
- COMM 2201 Business and Professional Speaking 3 cr
- COMM 3313 Internship 1-3 cr
- COMM 4408 Communication Theory 3 cr
- COMM 4442 American Rhetoric and Public Address 3 cr
- COMM 4447 Rhetoric of Hitler and Churchill 3 cr
- COMM 4451 Recent Rhetorical Issues 3 cr

**Total: 21 cr**

**Communication and Rhetorical Studies Courses**

**SPECIAL NOTE:** Students who fail to attend the first class meeting may be disenrolled.

**COMM 1101 Principles of Speech 3 credits.**
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 1115 Intercollegiate Debate 1-3 credits.**
Students prepare for regional- and national-level intercollegiate debate tournament competition. Students may receive up to eight credits in speech and drama activities. PREREQ: Debate team member. F

**COMM 1116 Intercollegiate Debate 1-3 credits.**
Students prepare for regional- and national-level intercollegiate debate tournament competition. Students may receive up to eight credits in speech and drama activities. PREREQ: Debate team member. S

**COMM 2201 Business and Professional Speaking 3 credits.**
Advanced speech course emphasizes practical speaking needs of business and professional people. PREREQ: COMM 1101. F, S

**COMM 2208 Group Communication 3 credits.**
Examines the process of human communication among members of organized groups. Topics studied include leadership development, norms, roles, cohesion, problem-solving techniques, and conflict. S

**COMM 2254 Organizational Communication 3 credits.**
Survey course covering the development of the organizational communication field. Students are introduced to various perspectives and theories for understanding and evaluating the role of communication in organizational systems. F

**COMM 3305 Argumentation and Debate 3 credits.**
Study of argument, analysis, evidence, reasoning, fallacies, briefing, and delivery. S

**COMM 3308 Persuasion 3 credits.** Advanced theory and performance course emphasizing principles of message composition, persuasive campaigns, and methods affecting attitude change in public communication. F

**COMM 3313 Internship 1-6 credits.**
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

**COMM 3315 Intercollegiate Debate 1-3 credits.**
Students prepare for regional- and national-level intercollegiate debate tournament competition. Students may receive up to eight credits in speech and drama activities. PREREQ: Debate team member. F

**COMM 3316 Intercollegiate Debate 1-3 credits.**
Students prepare for regional- and national-level intercollegiate debate tournament competition. Students may receive up to eight credits in speech and drama activities. PREREQ: Debate team member. S

**COMM 3355 Nonverbal Communication 3 credits.**
Explores the various dimensions of human interaction which supplement the verbal medium. Students study the dimensions of paralinguistics, time, space, form, and action, and develop an awareness of their own and others’ behavior. F

**COMM 4408 Communication Theory 3 credits.**
Examines models of social science and how these contribute to the development of
Department of Economics

Chair: Njoku
Professors: Benson, Hill, Stegner, Tokle
Visiting Assistant Professor: Yik Emeritus Faculty: Hofman

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 levels 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 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 choose 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 (a minimum of 36 credits—see 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
ECON 2201-2202 Principles of Macro- and Microeconomics 6 cr
(each course above partially satisfies General Education Objective 6)
ECON 3301 Macroeconomic Theory 3 cr
ECON 3302 Microeconomic Theory 3 cr
ECON 4474 Current Economic Problems 3 cr
ECON 4485 Econometrics 3 cr
MATH 1160 Applied Calculus 3 cr
Economics Minor

Required Courses:
ECON 2201, 2202 Principles of Macro- and Microeconomics 6 cr
(each course above partially satisfies General Education Objective 6)
ECON 3301 Macroeconomic Theory 3 cr
ECON 3302 Microeconomic Theory 3 cr
ECON 4474 Current Economic Problems 3 cr
ECON 4485 Econometrics 3 cr
MATH 1143 College Algebra 3 cr
MATH 1153 Introduction to Statistics 3 cr
MGT 2216 Business Statistics 3 cr
(plus of the last 2 courses satisfies General Education Objective 3)
Plus 9 additional upper-division economics credits.*
* All electives shall be selected by the student with prior approval from a Department of Economics faculty member.

Economics Courses

The following courses partially satisfy Objective 6 of the General Education Requirements: ECON 1100, ECON 2201, ECON 2202.

ECON 1100 Economic Issues 3 credits.
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 2202 have been taken. Partially satisfies Objective 6 of the General Education Requirements. F, S, Su

ECON 2201 Principles of Macroeconomics 3 credits.
Introduction to the U.S. economy. Includes analysis of demand and supply as well as the topics of national 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 credits.
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 2201 Macroeconomic Theory 3 credits.
Examinations 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 credits.
Examinations and analyzes how rational buyers make optimal choices given their budget- ary constraints and preferences. Examinations and analyzes how sellers make profit maximizing decisions under different market structures. Explains how these individual choices are coordinated into outcomes which result in an efficient allocation of limited resources. PREREQ: ECON 2202. S

ECON 3303 Economics of Health Care 3 credits.
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. Examines the nature and causes of the problems of medical care spending, access, and outcomes, as well as past and potential future actions to solve them. PREREQ: ECON 2202. F

ECON 3306 History of Economic Doctrines 3 credits.
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 credits.
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 3338 Public Finance 3 credits.
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. F

ECON 3341 Contemporary Labor Economics 3 credits.
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 credits.
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 credits.
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

Explains how these individual choices are coordinated into outcomes which result in an efficient allocation of limited resources. PREREQ: ECON 2202. S

ECON 3303 Economics of Health Care 3 credits.
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. Examines the nature and causes of the problems of medical care spending, access, and outcomes, as well as past and potential future actions to solve them. PREREQ: ECON 2202. F

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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

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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

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ECON 3362 Theory of Interest 3 credits.
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 credits. 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 4404 Games, Conflicts, Cooperation and Strategy 3 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 4439 State and Local Finance 3 credits. 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 4474 Senior Seminar 3 credits. 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 credits. 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 credits. Directed student internship in economic organizations and businesses 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 credits. 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 credits. F

ECON 4492 Seminar 1-3 credits. S

ECON 4497 Workshop 1-2 credits. F

ECON 4499 Directed Study 1-12 credits. May be repeated for up to 9 credits. F, S, Su

ECON 4497 Workshop 1-2 credits. F

Department of English and Philosophy

Chair and Professor: J. Attebery
Director of Philosophy and Professor: Wahl
Director of Graduate Studies and Professor: Winston
Director of Composition and Professor: Swetnam

Professors: B. Attebery, Baergen, A. Johnson, M. Johnson, Levenson, Schmidt, Worsham
Associate Professors: Engebretsen, Hellwig, Klein, Launspach, Montgomery, Skidmore, Whitaker, Wolter
Assistant Professors: Goslee, Petit, Schulz-Hurst, VanWinkle
Senior Lecturers: Norton, Pfister
Associate Lecturers: Dodd, C. Donovan, Hall, S. Johnson, Lattin, McCurdy
Assistant Lecturers: Cole, W. Donovan, Pelletti, Robinson, Shein, Stubbs

Adjunct Faculty: Bonman, Brooks, Charles, Christensen, Coates, Graham, Gray, Haeberle, Harker, Harrison, Lambson, Olsen, Plaster, Reedy, Treasure, Vanbezooyen, Wall, Wood Emeriti: Cantrill, Goldbeck, Huck, Jacob, Kijinski, K. King, W. King, Mullin, Myers, Sehow, Smith, Tate, D. Walsh, M. E. Walsh

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 the 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.)

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.

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. Undergraduate English students will write in a variety of modes and genres suitable to the demands of the given rhetorical situation.
2. Undergraduate English students will formulate research problems, do effective research, and incorporate the results of their research into their own writing.
3. Undergraduate English students will read effectively and analyze critically literary texts and will understand the theoretical underpinnings of this process.
4. Undergraduate English students will understand the significance of texts within their historical and cultural contexts.
5. Undergraduate English students will understand language as a medium of common linguistic principles; they will understand the relationship of these linguistic principles to communication and expression.

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.

Bachelor of Arts In English
A student may choose 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 choose 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 0090, 1101, and 1102).

Option 1—Literary
Take these required courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 2211</td>
<td>Introduction to Literary Analysis</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 2280</td>
<td>Grammar and Usage OR</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 2281</td>
<td>Introduction to Language Studies</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Choose two of the following survey courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 2267</td>
<td>Survey of British Literature I</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 2268</td>
<td>Survey of British Literature II</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 2277</td>
<td>Survey of American Literature</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 2278</td>
<td>Survey of American Literature II</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Choose one of the following genre study courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 3321</td>
<td>Genre Studies in Drama</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 3322</td>
<td>Genre Studies in Poetry</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 3323</td>
<td>Genre Studies in Prose Fiction</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 3324</td>
<td>Genre Studies in Prose Non-Fiction</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 3327</td>
<td>Special Topics in Genre</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Choose two of the following period courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 4461</td>
<td>Studies in Classical Literature</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 4462</td>
<td>Studies in Medieval Literature</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 4463</td>
<td>Studies in Renaissance Literature</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 4464</td>
<td>Studies in Seventeenth-Century Literature</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 4465</td>
<td>Studies in Eighteenth-Century Literature</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 4466</td>
<td>Studies in Early Nineteenth-Century Literature</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 4467</td>
<td>Studies in Late Nineteenth-Century Literature</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 4468</td>
<td>Studies in Early Twentieth-Century Literature</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 4469</td>
<td>Studies in Contemporary Literature</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Choose one of the following major figure courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 4472</td>
<td>Proseminar in a Major Literary Figure</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 4473</td>
<td>Chaucer</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 4474</td>
<td>Milton</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 4476</td>
<td>Shakespeare</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Choose one of the following themes and identity courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 3328</td>
<td>Gender in Literature</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 3356</td>
<td>Ethnicity in Literature</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 4453</td>
<td>American Indian Literature</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 4470</td>
<td>Post-Colonial Literature</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Choose one of the following language studies courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 4480</td>
<td>Varieties of American English</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 4481</td>
<td>Studies in Grammar</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 4484</td>
<td>Rotating Topics in Linguistics</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 4485</td>
<td>Linguistic Analysis</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 4486</td>
<td>Old English</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 4487</td>
<td>History of the English Language</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 4488</td>
<td>Introduction to Sociolinguistics</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Electives
Choose 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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1110</td>
<td>Introduction to Literature</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 1115</td>
<td>Major Themes in Literature</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

(either of the 2 courses above partially satisfies General Education Objective 4)

ANTH/ENGL 2212Introduction to Folklore/Oral Tradition 3 cr
Option 2—

Professional Writing

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

Take these required courses (24 credits):

ENGL 2211 Introduction to Literary Analysis 3 cr
ENGL 2280 Grammar and Usage 3 cr OR
ENGL 2281 Introduction to Language Studies 3 cr
ENGL 3307 Professional and Technical Writing 3 cr
ENGL 3308 Business Communications 3 cr
ENGL 3311 Writing and Research About Literature 3 cr
ENGL 4410 Writing Internship 3 cr
ENGL 4493 Senior Seminar in Professional Writing 3 cr
PHIL 2201 Introduction to Logic 3 cr

(satisfies General Education Objective 7)

Choose two of the following survey courses (3 credits):

ENGL 2267 Survey of British Literature I 3 cr
ENGL 2268 Survey of British Literature II 3 cr
ENGL 2277 Survey of American Literature I 3 cr
ENGL 2278 Survey of American Literature II 3 cr

Choose one of the following creative writing courses (3 credits):

ENGL 2206 Introduction to Creative Writing 3 cr
ENGL 3306 Intermediate Creative Writing Workshop 3 cr
ENGL 4406 Advanced Creative Writing Workshop 3 cr

Choose one of the following genre study courses (3 credits):

ENGL 3321 Genre Studies in Drama 3 cr
ENGL 3322 Genre Studies in Poetry 3 cr
ENGL 3323 Genre Studies in Prose Fiction I 3 cr
ENGL 3324 Genre Studies in Prose Non-Fiction 3 cr

Choose three of the following writing, communication, and media courses (9 credits):

CIS 1120 Interactive Web Development 3 cr
CIS 2285 Introduction to Graphic Design 3 cr OR
CMP 4406 Advanced Issues in Graphic Design 3 cr
CMP 2251 Introduction to Photography 3 cr OR

Choose one of the following culture and language studies courses: (3 credits)

ENGL 5572 Introduction to Folklore/Ooral Tradition 3 cr
ENGL 4480 Studies in Grammar 3 cr
ENGL 4481 Studies in Linguistics 3 cr
ENGL 4483 Studies in English Language 3 cr
ENGL 4484 Studies in Sociolinguistics 3 cr

Choose one of the following theme, identity, and performance studies courses:

ENGL 3305 Art of the Film II 3 cr
ENGL 3328 Gender in Literature 3 cr
ENGL 3356 Ethnicity in Literature 3 cr
ENGL 4453 American Indian Literature 3 cr
ENGL 4470 Post-Colonial Literature 3 cr
ENGL 4490 Folklore 3 cr
ENGL 4492 Folklore and Literature 3 cr

PROFESSIONAL WRITING ENGLISH MAJOR TOTAL: 45 cr

Option 3—

Creative Writing (45 cr)

Note: Students electing the creative writing option are strongly encouraged to consider a minor to broaden career options.

Required courses:

ENGL 2206 Creative Writing Workshop 3 cr
ENGL 2211 Introduction to Literary Analysis 3 cr
ENGL 2280 Grammar and Usage 3 cr OR
ENGL 2281 Introduction to Language Studies 3 cr
ENGL 3306 Intermediate Creative Writing Workshop 3 cr
ENGL 3311 Writing and Research About Literature 3 cr
ENGL 4406 Advanced Creative Writing Workshop 3 cr
ENGL 4494 Senior Seminar in Creative Writing 3 cr

Choose two of the following survey courses:

ENGL 2267 Survey of British Literature I 3 cr
ENGL 2268 Survey of British Literature II 3 cr
ENGL 2277 Survey of American Literature I 3 cr
ENGL 2278 Survey of American Literature II 3 cr

Choose two of the following genre study courses:

ENGL 3321 Genre Studies in Drama 3 cr
ENGL 3322 Genre Studies in Poetry 3 cr
ENGL 3323 Genre Studies in Prose Fiction I 3 cr
ENGL 3324 Genre Studies in Prose Non-Fiction 3 cr

Choose one of the following language studies courses:

ENGL 4480 Studies in Grammar 3 cr
ENGL 4481 Studies in Linguistics 3 cr
ENGL 4483 Studies in English Language 3 cr

Choose one of the following period courses:

ENGL 4461 Studies in Classical Literature 3 cr
ENGL 4462 Studies in Medieval Literature 3 cr
ENGL 4463 Studies in Renaissance Literature 3 cr

ENGL 4464 Studies in Seventeenth-Century Literature 3 cr
ENGL 4465 Studies in Eighteenth-Century Literature 3 cr
ENGL 4466 Studies in Early Nineteenth-Century Literature 3 cr
ENGL 4467 Studies in Late Nineteenth-Century Literature 3 cr
ENGL 4468 Studies in Early Twentieth-Century Literature 3 cr
ENGL 4469 Contemporary Literature 3 cr

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 0090, 1101, and 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

Twenty-one hours of credit in English, including ENGL 2280 or 2281; 3311, and 4487, plus four other courses, of which at least two must be upper-division, from among the following courses: ENGL 1107, 2206, 3306, 3307, 4401, 4406, 4481, 4484, and PHIL 2201.
Option 3 — Creative Writing (21 credits)

Required Courses:
ENGL 2206 Introduction to Creative Writing 3 cr
ENGL 2211 Introduction to Literary Analysis 3 cr
ENGL 3306 Creative Writing Workshop 3 cr
ENGL 4406 Advanced Creative Writing Workshop 3 cr
ENGL 4494 Senior Seminar in Creative Writing 3 cr

Choose one:
ENGL 2257 Survey of World Literature I 3 cr
ENGL 2258 Survey of World Literature II 3 cr
ENGL 2267 Survey of British Literature I 3 cr
ENGL 2268 Survey of British Literature II 3 cr
ENGL 2277 Survey of American Literature I 3 cr
ENGL 2278 Survey of American Literature II 3 cr
Upper-division elective 3 cr

English Courses

Prerequisites and Standards
Students must complete Objective 1 or its equivalent before enrolling in 2000-level ENGL courses.

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.

Placement in English Composition Courses
Regulations and procedures governing student placement in the composition-course sequence are summarized under General Education Requirements, Objective 1.

American Studies Courses

AMST 1100 Introduction to American Language and Cultures 3 credits. 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

AMST 2200 Introduction to American Studies 3 credits. This course will introduce essential themes in American studies, will outline a basic canon of interdisciplinary knowledge, and will discuss methods with which aspects of American cultural life may be analyzed. Fulfills Goal 6 of the General Education Requirements. R1

AMST 3348 Independent Problems 3 credits. Consultation course for American Studies majors interested in problems in American Studies not adequately covered by regular offerings; for use in the American Studies Special Option. PREREQ: 58 credits and permission of the Director of American Studies. D

AMST 4403 Senior Project 3 credits. Capstone interdisciplinary research project consolidating students’ grasp of American Studies by examining an issue through at least two academic disciplines. Directed by the program director and evaluated by the American Studies Committee. PREREQ: Senior standing. D

AMST 4410 Internship 6 credits. On-the-job experience in business, industry, government, or non-profit organization settings; for use in the American Studies Special Option. May be repeated for up to 6 credits. PREREQ: 58 credits and permission of the Director of American Studies. D

ENGL 0900 Basic Writing 0 credits (3 credit equivalent). 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 credits. 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 credits. 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. F, S, Su

ENGL 1102 Critical Reading and Writing 3 credits. 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 when passed with at least a C-grade. PREREQ: ENGL 1101 or equivalent. F, S, Su

ENGL 1107 Nature of Language 3 credits. 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 credits. 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 credits. 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

ENGL 1126 Art of Film 1 credits. 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. S

ENGL 2206 Creative Writing Workshop 3 credits. Introduction to one or more forms of creative writing. R1

ENGL 2211 Introduction to Literary Analysis 3 credits. 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/Oral Tradition 3 credits. 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 1 (Beginnings through 16th Century) 3 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. Examination of major works and authors in historical perspective with emphasis upon literary and cultural backgrounds. R1

ENGL 2280 Grammar and Usage 3 credits. 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 credits. Introduction to basic concepts and models for the study of English phonology, morphology, syntax, and lexis. R1

ENGL 3305 Art of the Film II 3 credits. 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 of instructor. D

ENGL 3306 Intermediate Creative Writing Workshop 3 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. Comparative study of selected poems through recognition of generic forms and conventions, their origins and continuing evolution, and their theoretical basis. R2

ENGL 3323 Genre Studies in Fiction 3 credits. Comparative study of varying forms and conventions in selected prose fiction, with attention to their origins, evolution, and theoretical basis. R2

ENGL 3324 Genre Studies in Non-Fiction 3 credits. 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 credits. Focused study of a generic tradition modified by thematic or historical contexts, with emphasis on topics not regularly treated in ENGL 3321-3324. D

ENGL 3328 Gender in Literature 3 credits. 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 credits. 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 credits. Consultation course for upperclassmen interested in problems in language and literature not adequately covered by regular offerings. PREREQ: Permission of the Department. D

ENGL 3353 The West in American Literature 3 credits. Survey of the literature of Western America since 1800. D

ENGL 3356 Ethnicity in Literature 3 credits. 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 credits. 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 credits. 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. R2

ENGL 4406 Advanced Creative Writing Workshop 3 credits. Production and discussion of student writing. Study in a specific genre. Undergraduate course may be repeated for up to 6 credits. PREREQ: ENGL 3306 or permission of instructor. R1

ENGL 4407 Topics in Professional Writing 3 credits. 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 credits. 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.

ENGL 4410 Writing Internship 1-6 credits. On-the-job writing experience in business, industry, or government settings. May be repeated for up to 6 credits. PREREQ: 90 credits and ENGL 3307, ENGL 3308, or ENGL 3311. Graded S/U. F, S

ENGL 4431 Teaching and Writing Projects: Special Topics 3 credits. Special Topics. 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 credits. Study of the objectives and methods of teaching literature and composition in secondary schools. Ideally taken semester before student teaching. PREREQ: Objective 1, ENGL 2211 and ENGL 2281, plus 3 additional hours of English. F

ENGL 4440 Philosophy and Literature 3 credits. 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 credits. Teaches about 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 credits. 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: Objective 1. R2

ENGL 4455 Studies in National Literatures 3 credits. 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 credits. The analysis of ideas, problems, and techniques common to important writers of various national literatures. R3

ENGL 4461 Studies in Classical Literature 3 credits. 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 credits. 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 credits. 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 credits. Study of the major literature of the seventeenth century and its background, with emphasis upon the development of English, American, or other literature of the period. R2

ENGL 4465 Studies in Eighteenth-Century Literature 3 credits. Study of the major literature of the eighteenth century and its background, with emphasis upon the development of English, American, or other literature of the period. R2

ENGL 4466 Studies in Early Nineteenth-Century Literature 3 credits. 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 credits. 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 credits. 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 credits. Study of recent major literature and its background, with emphasis upon English or other literature of the period. R2

ENGL 4470 Post-Colonial Literature 3 credits. 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 credits. 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 credits. Intensive study of selected works of Chaucer. D

ENGL 4474 Milton 3 credits. Intensive study of selected works of Milton. D

ENGL 4476 Shakespeare 3 credits. Intensive study of selected works of Shakespeare. R1

ENGL 4477 Shakespeare in Performance 3 credits. Intensive study of selected works by Shakespeare, with special emphasis placed upon performance issues. Includes fieldtrip to attend live dramatic productions of Shakespearean plays. D

ENGL 4480 Varieties of American English 3 credits. In-depth study of various dialects of American English including historical evolution of different dialects, effects of migration on dialects, and differences 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/ENG/LANG 1107 or ENGL 2280 or ENGL 2281. D

ENGL 4481 Studies in Grammar 3 credits. 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 credits. 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/ENG/LANG 1107 or ENGL 2280 or ENGL 2281. D

ENGL 4486 Old English 3 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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

### 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 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 choose among a minor in Ethics, a minor in Philosophy, and a minor in Philosophy and Religion.

#### Option 1 - Traditional Major

**Required courses:**

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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PHIL 2201</td>
<td>Introduction to Logic</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHIL 3305</td>
<td>History of Philosophy: Greek</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHIL 3315</td>
<td>History of Philosophy: Early Modern</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHIL 4450</td>
<td>Ethical Theory</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHIL 4460</td>
<td>Theory of Knowledge</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHIL 4492</td>
<td>Senior Tutorial</td>
<td>3 cr</td>
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</tbody>
</table>

**Plus** 12 additional hours of philosophy electives.

#### Option 2 - Pre-law Emphasis

**Required courses:**

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<tr>
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<tbody>
<tr>
<td>PHIL 2201</td>
<td>Introduction to Logic</td>
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</tr>
<tr>
<td>PHIL 3305</td>
<td>History of Philosophy: Greek</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHIL 3353</td>
<td>Philosophy of Law</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHIL 4450</td>
<td>Ethical Theory</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHIL 4460</td>
<td>Theory of Knowledge</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHIL 4492</td>
<td>Senior Tutorial</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

**Plus one course from the following:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 3355</td>
<td>Political and Social Philosophy</td>
<td>3 cr</td>
</tr>
<tr>
<td>POLS 3313</td>
<td>Introduction to Political Philosophy</td>
<td>3 cr</td>
</tr>
<tr>
<td>POLS 4418</td>
<td>Topics in Political Theory</td>
<td>3 cr</td>
</tr>
<tr>
<td>POLS 4420</td>
<td>Contemporary Political Theory</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

**Plus one course from the following:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS 2249</td>
<td>Introduction to Criminal Law</td>
<td>3 cr</td>
</tr>
<tr>
<td>POLS 3342</td>
<td>American Legal System</td>
<td>3 cr</td>
</tr>
<tr>
<td>POLS 3345</td>
<td>Jurisprudence</td>
<td>3 cr</td>
</tr>
</tbody>
</table>
Plus six additional hours of philosophy electives.

Minor in Ethics

Required courses: eighteen semester-hours of philosophy including

PHIL 4450 Ethical Theory 3 cr
And at least two of the following:
- PHIL 2220 Philosophical Issues in Religion 3 cr
- PHIL 2225 Philosophy and the Old Testament 3 cr
- PHIL 3353 Philosophy of Law 3 cr
- PHIL 3355 Political and Social Philosophy 3 cr

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 two of:
- PHIL 2210 Introduction to Asian Philosophy 3 cr (satisfies General Education Objective 9)
- PHIL 2220 Philosophical Issues in Religion 3 cr
- PHIL 2225 Philosophy and the Old Testament 3 cr
- PHIL 4425 Existentialism 3 cr

Plus one of the following:
- HIST 2252 East Asian History 3 cr
- HIST 2254 Middle Eastern Civilization 3 cr
- SOC 3368 The Sociology of Religion 3 cr

Philosophy Courses

PHIL 1101 Introduction to Philosophy 3 credits. An introduction to the major thinkers and major problems in Western philosophical and scientific traditions. Sections may emphasize either an historical or a problems approach. Partially satisfies Objective 4 of the General Education Requirements. F, S, Su

PHIL 1103 Introduction to Ethics 3 credits. 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 credits. An introduction to the concepts and methods of deductive and inductive logic, with special emphasis on the use of logical methods to iden-

ify, analyze, construct, and evaluate everyday arguments. Satisfies Objective 7 of the General Education Requirements. R1

PHIL 2210 Introduction to Asian Philosophies 3 credits. 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 credits. 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 credits. 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 credits. An examination of ethical issues that arise in medical practice and biotechnology. Topics may include informed consent, withdrawing life sustaining treatment, abortion, assisted suicide, and the allocation of scarce resources. F, S, Su

PHIL 3305 History of Philosophy: Greek Reason and Christian Faith 3 credits. 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 credits. 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 credits. 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 credits. 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 credits. Questions concerning social justice as discussed by Plato, Aristotle, Hobbes, Locke, Hegel, Marx, and others. D

PHIL 4400 Philosophy of Art 3 credits. 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 credits. 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 credits. Inquiry into the mind-body problem and representational 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 credits. 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 credits. A survey of the philosophical issues related to science. Topics include the nature of scientific theories, science and non-science, scientific explanation and causation, objectivity and evidence, realism and anti-realism in science, and scientific revolutions. R2

PHIL 4435 Metaphysics 3 credits. 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 credits. 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 credits. 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 4460 Theory of Knowledge 3 credits. 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 credits. 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 credits. 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 credits. Advanced reading and discussion on selected topics in philosophy. May be repeated with permission of the department. D
**Folklore Program**

Director and Professor: J. Attebery (English)

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, folktale, 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 within 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 minor 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.

**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/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:**

ANTH/ENGL 2212 Introduction to Folklore/Oral Tradition 3 cr (satisfies General Education Objective 9)

**Choose 15 credits from:**

ANTH 3301 Introduction to Shoshoni Folklore 3 cr
ANTH 4404 Material Culture Analysis 3 cr
ANTH 4449 Qualitative Research Methods 3 cr
ANTH 4452 American Indian Verbal Arts 3 cr
ANTH 4472 Native American Arts 3 cr
ANTH/ENGL 4490 Topics in Folklore 3 cr
ENGL 4492 Folklore and Literature 3 cr

**Department of History**

Chair and Associate Professor: Marsh
Professors: S. Christelow, Hatzenbuehler, Woodworth-Ney
Associate Professors: Kuhlman, Njoku
Assistant Professor: Jones
Visiting Assistant Professor: Stamm
Lecturers: Maheras, Siritz, Stover
Adjunct Faculty: Benedict, Callis, Emfield, Francis, Leibert, Reinke, Storms
Emeriti: Marley, Owens, Ruckman, Swanson

**Historical Thinking Objectives**

The Department of History has developed the following Historical Thinking 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 the general 8 of the 9 General Education Objectives (minimum 36 credits—see 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**

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

HIST 1101 Foundations of Europe 3 cr
HIST 1102 Modern Europe 3 cr
HIST 2221 Ancient World 3 cr
HIST 2249 World Regional Geography 3 cr
HIST 2251 Latin America 3 cr
HIST 2252 East Asian History 3 cr
HIST 2254 Middle Eastern Civilization 3 cr
HIST 2255 African History and Culture 3 cr

**Category II: Research Skills**

(6 credits)

HIST 2291 The Historian’s Craft 3 cr
HIST 4491 Seminar 3 cr

**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.

HIST 4418 United States History for Teachers 3 cr

**Category IV: Upper Division United States History**

(6 credits)

HIST 3307 Early North America 3 cr
HIST 3308 Industrialization and Reform in the United States 3 cr
Foreign Language Requirement
All History majors must complete 1 year of a foreign language or its equivalent to complete the B.A. degree. These courses also satisfy part of Objective 4 of the General Education Requirements. All students, particularly those planning graduate work, are strongly urged to pursue additional foreign language training beyond this requirement.

Minor in History
World Regions (9 credits, no more than 3 of which must be HIST 1101 or HIST 1102):
Students must take at least three of the following World Regions courses:

- HIST 1101 Foundations of Europe 3 cr
- HIST 1102 Modern Europe 3 cr
Each course above partially satisfies General Education Objective 6

- HIST 2221 Ancient World 3 cr
- HIST 2249 World Regional Geography 3 cr
- HIST 2251 Latin America 3 cr
- HIST 2252 East Asian History 3 cr
- HIST 2254 Middle Eastern Civilization 3 cr
- HIST 2255 African History and Culture 3 cr

Other Courses:
- ONE additional 2000-4000 level course in History 3 cr
- TWO additional 3000-4000 level courses in History 6 cr
Total: 18 cr

Teaching Majors and Minors
Students pursuing a major in Secondary Education History follow an early 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.

Pre-Law Majors
Dr. Ron Hatzenbuehler is the pre-law advisor for the History Department. Students interested in postgraduate legal education should consult regularly with him.

History Courses
HIST 1101 Foundations of Europe 3 credits.
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. D

HIST 1102 Modern Europe 3 credits.
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. D

HIST 1111 U.S. History I (to 1865) 3 credits.
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 U.S. History II (to present) 3 credits.
The domestic and international development of a plural, industrial society. Partially satisfies Objective 6 of the General Education Requirements. F, S

HIST 1113 U.S. History and Culture 3 credits.
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 2221 Ancient World 3 credits.
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 credits.
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 credits.
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 credits.
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. F, S, Su

HIST 2254 Middle Eastern Civilization 3 credits.
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 credits.
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 credits.
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 credits.
Required prerequisite for HIST 4491.

Category V: Upper Division World, Comparative, and non-U.S. History (6 credits)

HIST 3318 History of Christianity 3 cr
HIST 3322 Religious Reform and Conflict 3 cr
HIST 3323 Old Regime and French Revolution 3 cr
HIST 3326 Twentieth Century Europe 3 cr
HIST 3332 Russia 3 cr
HIST 4492 International Relations since 1900 3 cr
HIST 4430 Global Environmental History 3 cr
HIST 4435 Colonial Frontiers 3 cr
HIST 4437 Families in Former Times 3 cr
HIST 4438 Women in Pre-industrial Europe 3 cr
HIST/WS 4439 Feminism and Equality in World History 3 cr
HIST 4441 The Viking Age 3 cr
HIST 4443 English History 3 cr
HIST 4444 Victorian England and After 3 cr
HIST 4446 Social and Economic History of Greece and Rome 3 cr
HIST 4448 Medieval Social and Economic History 3 cr
HIST 4450 Golden Age Castile 3 cr
HIST 4453 Renaissance Creativity 3 cr
HIST 4460 The Global Hispanic Monarchy 3 cr
HIST 4474 Islam and Nationalism in the Modern World 3 cr
HIST 4478 Imperialism and Progressivism 3 cr
HIST 4490, 4490L Cartography: History and Design, and Lab 4 cr

Category VI: Electives (9 credits)

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

HIST 3337 Archaeology and History of Southern Idaho 2 cr
HIST 3364 Public History Internship 1-6 cr
HIST 4405 Problems in History 3 cr
HIST/MUSE 4411 Introduction to Museum Studies 2 cr
HIST 4461 Independent Study: United States* 1-3 cr
HIST 4462 Independent Study: Europe* 1-3 cr
HIST 4463 Independent Study: World Regions* 1-3 cr
ANTH 4410 Introduction to Cultural Resources Management 3 cr
ECON 3323 Economic History 3 cr
GEOL 4403, 4403L Principles of Geographic Information Systems, and Lab 3 cr

*Note: Using more than one independent study class (4461, 4462, or 4463) to fulfill the requirements requires the permission of the History Chair.
Satisfies Objective 8 of the General Education Requirements. F, S

HIST 3307 Early North America 3 credits. A study of American cultures prior to the arrival of Europeans, 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 credits. 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 credits. 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. role in 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 credits. 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 Reformations and Conflict 3 credits. 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 credits. 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 3326 Twentieth Century Europe 3 credits. 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 unification of Europe in the European Union. D

HIST 3337 Archaeology and History of Southern Idaho 2 credits. 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 credits. 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 credits. Russian history and civilization from the medieval Kievan state to modern times. D

HIST 4405 Problems in History 3 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 4435 Colonial Frontiers in America and Africa 3 credits. A comparative examination of exploration, conquest, and resistance, and the interaction of cultures in frontier settings. Examines both the realities of the frontier and their impact on Western thought and imagination. D

HIST 4437 Families in Former Times 3 credits. 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 credits. 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 Feminism and Equality in World History 3 credits. Interdisciplinary study of the history of feminism and women’s rights in different world regions, involving the social constructs of gender, race, and class. Equivalent to WS 4439. S

HIST 4441 The Viking Age 3 credits. Studies the cultures and societies of Scandinavia, England and continental Europe from 700 to 1100 AD. D

HIST 4443 English History 3 credits. 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 credits. 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 4446 Social and Economic History of Greece and Rome 3 credits. 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 credits. Analyzes the impact of political instability, migration and environment upon Europeans (AD 200-1400). D

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

HIST 4453 Renaissance Creativity 3 credits. Examination of the conditions promoting individual creativity among Europeans in the first global age, 1400-1700. Special emphasis on geospatial research on the history of printing. AS

HIST 4460 The Global Hispanic Monarchy 3 credits. The African, American, Asian, European, and Oceanic domains of the Iberian Habsburg dynasty, especially those of Castile and Portugal, whose officials and subjects created and maintained many of the communications routes that defined the first global age. Students prepare geospatial datasets on these routes. AS

HIST 4461 Independent Study: United States 1-3 credits. 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 credits. 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 credits. 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 U.S. Political History 3 credits. 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 credits. 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. AS

HIST 4474 Islam and Nationalism in the Modern World 3 credits. A study of the interaction of Islam and national and ethnic identities in the Middle East including North Africa from 1800 up to the recent past. D

HIST 4477 Imperialism and Progressivism 3 credits. 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 Disease and U.S. Public Health 3 credits. A survey of health, disease, and public health developments in American history. The course takes a broad approach to health, but includes the development of public health offices, the role of disease in society, specific diseases and related eradication programs, and questions related to health, equity, and civil liberties. R2

HIST 4480 GIS for Social Sciences 3 credits. 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 credits. History of how map-makers represent geographic, spatial data. Special attention to the elements of successful cartographic design. COREQ: HIST 4400L. F, S

HIST 4490L Cartography Lab 1 credit. 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 credits. Reading, discussion, and preparation for research papers on selected topics. F, S

HIST 4497 Workshop 1-2 credits. 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

Idaho Museum of Natural History

Faculty:
Director, Research Curator and Anthropology Division Head; Director, Idaho Virtualization Laboratory; Director, Center for Archaeology, Materials, and Applied Spectroscopy, and Anthropology Research Professor: Maschner
Research Curator and Earth Sciences Division Head: Tapanila
Research Curator Ray J. Davis Herbarium and Life Science Division Head: Williams
Affiliate Research Curators: R. Holmer, Betts, Dudgeon, Rountree, Schou, Crosby, Thackray, Holte, Peterson, Keeley, Anderson, Ray, Fortsch, Link, Misarti
Emeriti: Akers, Holte, Trost

Museum Staff:
Registrar: ThompsonEducation Resources Coordinator: Pokorny
Anthropology Collections Manager: Tews
Earth Sciences Collections Manager: Thompson
Life Sciences and Ray J. Davis Herbarium Collections Manager: Bala
Earl R. Swanson Archaeological Repository Manager: Commentador-Dudgeon
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 (CAMSAS). 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 affiliated Idaho State University departments. See course descriptions in the College of Arts and Letters section of the catalog.

The Idaho Museum of Natural History gallery is open from 12:30-5 p.m., Wednesday through Friday, 10-5pm Saturday, except for Federal and State holidays. There is currently no admission fee.

Museum Courses

MUSE 4411 Introduction to Museum Studies 2 credits. 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 credits. 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 credits. Individual projects based on student’s background and interests. Could include, but not limited to, advanced work in collections management, exhibit design and con-
struction, museum education, or administration. May be repeated for up to 6 credits. PREREQ: MUSE 4411 or permission of instructor. D

MUSE 4451 Internship in Museum Studies 3-6 credits. 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 credits. 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. PREREQ: Permission of instructor. F, S, Su

International Studies Program

Director and Professor: Njoku (Economics)

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;
3. The United States and World Affairs.

Bachelor of Arts in International Studies

Admission Requirements

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

1. General Education Objectives 1, 2, and 3, 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.

Program Requirements

The following courses may be taken as part of the general education requirements 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, 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--Nine (9) credits:

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<tr>
<td>IS 2200</td>
<td>Simulation*</td>
<td>1 cr</td>
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<tr>
<td>IS 4400</td>
<td>Simulation*</td>
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</tr>
<tr>
<td>IS 4493</td>
<td>Senior Thesis</td>
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POLS 2221 Introduction to International Relations 3 cr

*May be repeated once

2. Areas of Concentration--Eighteen (18) credits

Students must complete eighteen (18) credits to be chosen from within one of the following areas of concentration (choose 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

<table>
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<tr>
<td>ANTH 2250</td>
<td>Introduction to Sociocultural Anthropology</td>
<td>3 cr</td>
</tr>
<tr>
<td>ANTH 4402</td>
<td>Ecological Anthropology</td>
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Economics*

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<td>ECON 4434</td>
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<td>ECON 4435</td>
<td>International Finance</td>
<td>3 cr</td>
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<td>ECON 4433</td>
<td>Economic Development</td>
<td>3 cr</td>
</tr>
<tr>
<td>ECON 4472</td>
<td>Comparative Economic Systems</td>
<td>3 cr</td>
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</table>

*Both ECON 2201 and ECON 2202 are prerequisites for the Economics courses above.

History

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<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HIST 2251</td>
<td>Latin America</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIST 2252</td>
<td>East Asian History</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIST 2254</td>
<td>Middle Eastern Civilization</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIST 2255</td>
<td>African History and Culture</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIST 3382</td>
<td>Russian History</td>
<td>3 cr</td>
</tr>
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<td>HIST 4430</td>
<td>Global Environmental History</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIST 4474</td>
<td>Islam and Nationalism in the Modern World</td>
<td>3 cr</td>
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<tr>
<td>HIST 4478</td>
<td>Imperialism and Progressivism</td>
<td>3 cr</td>
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Political Science

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>POLS 3331</td>
<td>Comparative Politics: Framework for Analysis</td>
<td>3 cr</td>
</tr>
<tr>
<td>POLS 4432</td>
<td>Change and Political Order</td>
<td>3 cr</td>
</tr>
<tr>
<td>POLS 4433</td>
<td>Politics of Developing Nations</td>
<td>3 cr</td>
</tr>
<tr>
<td>POLS 4434</td>
<td>Terrorism</td>
<td>3 cr</td>
</tr>
<tr>
<td>POLS 4435*</td>
<td>Topics in National/Regional Studies</td>
<td>3 cr</td>
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*in consultation with your advisor and when the topic relates to political and economic development.

Sociology

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<tbody>
<tr>
<td>SOC 3335</td>
<td>Population and Environment</td>
<td>3 cr</td>
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</table>

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**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CMLT 2207</td>
<td>Contemporary European Culture</td>
<td>3 cr</td>
</tr>
<tr>
<td>(satisfies General Education Objective 9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FREN 3301,3302</td>
<td>French Conversation and Composition I and II</td>
<td>6 cr</td>
</tr>
<tr>
<td>FREN 3341,3342</td>
<td>Survey of French Literature and Civilization I and II</td>
<td>6 cr</td>
</tr>
<tr>
<td>FREN 3381</td>
<td>French Current Affairs</td>
<td>3 cr</td>
</tr>
<tr>
<td>FREN 4400</td>
<td>French Advanced Grammar</td>
<td>3 cr</td>
</tr>
<tr>
<td>FREN 4470</td>
<td>Readings in French</td>
<td>2 cr</td>
</tr>
<tr>
<td>FREN 4480</td>
<td>Independent Studies in French</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIST 2255</td>
<td>African History and Culture</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIST 3323</td>
<td>Old Regime and French Revolution</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIST 3326</td>
<td>Twentieth Century Europe</td>
<td>3 cr</td>
</tr>
<tr>
<td>POLS 4435*</td>
<td>Topics in National/Regional Studies</td>
<td>3 cr</td>
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<tr>
<td><em>(in consultation with your advisor and when the topic relates to this area of concentration)</em></td>
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**German**

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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CMLT 2207</td>
<td>Contemporary European Culture</td>
<td>3 cr</td>
</tr>
<tr>
<td>(satisfies General Education Objective 9)</td>
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</tr>
<tr>
<td>GERM 3301-3302</td>
<td>German Conversation and Composition</td>
<td>6 cr</td>
</tr>
<tr>
<td>GERM 3341-3342</td>
<td>Survey of German Literature and Civilization</td>
<td>6 cr</td>
</tr>
<tr>
<td>GERM 3381</td>
<td>German Current Affairs</td>
<td>3 cr</td>
</tr>
<tr>
<td>GERM 4400</td>
<td>German Advanced Grammar</td>
<td>3 cr</td>
</tr>
<tr>
<td>GERM 4470</td>
<td>Readings in German</td>
<td>2 cr</td>
</tr>
<tr>
<td>GERM 4480</td>
<td>Independent Studies in German</td>
<td>3 cr</td>
</tr>
<tr>
<td>GERM 4490</td>
<td>German Senior Seminar</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIST 3326</td>
<td>Twentieth Century Europe</td>
<td>3 cr</td>
</tr>
<tr>
<td>POLS 4435*</td>
<td>Topics in National/Regional Studies</td>
<td>3 cr</td>
</tr>
<tr>
<td><em>(in consultation with your advisor and when the topic relates to this area of concentration)</em></td>
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**Japanese**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HIST 2252</td>
<td>East Asian History</td>
<td>3 cr</td>
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<tr>
<td>(satisfies General Education Objective 9)</td>
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<tr>
<td>JAPN 3301,3302</td>
<td>Japanese Conversation and Composition I and II</td>
<td>6 cr</td>
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<tr>
<td>JAPN 3341,3342</td>
<td>Survey of Japanese Literature I and II</td>
<td>6 cr</td>
</tr>
<tr>
<td>JAPN 4470</td>
<td>Readings in Japanese</td>
<td>2 cr</td>
</tr>
<tr>
<td>POLS 4432</td>
<td>Comparative Politics: Change and Political Order</td>
<td>3 cr</td>
</tr>
<tr>
<td>POLS 4435*</td>
<td>Topics in National/Regional Studies</td>
<td>3 cr</td>
</tr>
<tr>
<td><em>(in consultation with your advisor and when the topic relates to this area of concentration)</em></td>
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**Russian**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CMLT 2207</td>
<td>Contemporary European Culture</td>
<td>3 cr</td>
</tr>
<tr>
<td>(satisfies General Education Objective 9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIST 3326</td>
<td>Twentieth Century Europe</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIST 3382</td>
<td>Russian History</td>
<td>3 cr</td>
</tr>
<tr>
<td>POLS 4432</td>
<td>Comparative Politics: Change and Political Order</td>
<td>3 cr</td>
</tr>
<tr>
<td>POLS 4435*</td>
<td>Topics in National/Regional Studies</td>
<td>3 cr</td>
</tr>
<tr>
<td>RUSS 3301,3302</td>
<td>Russian Conversation and Composition I and II</td>
<td>6 cr</td>
</tr>
<tr>
<td>RUSS 4470</td>
<td>Readings in Russian</td>
<td>2 cr</td>
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<tr>
<td><em>(in consultation with your advisor and when the topic relates to this area of concentration)</em></td>
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**Spanish**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CMLT 2207</td>
<td>Contemporary European Culture</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIST 2251</td>
<td>Latin American Civilization</td>
<td>3 cr</td>
</tr>
<tr>
<td><em>(each course above satisfies General Education Objective 9)</em></td>
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<tr>
<td>HIST 4450</td>
<td>Golden Age Castile</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIST 4460</td>
<td>Global Hispanic Monarchy</td>
<td>3 cr</td>
</tr>
<tr>
<td>SPAN 3301-3302</td>
<td>Spanish Conversation and Composition</td>
<td>6 cr</td>
</tr>
<tr>
<td>SPAN 3341-3342</td>
<td>Survey of Spanish and Latin American Literature</td>
<td>6 cr</td>
</tr>
<tr>
<td>SPAN 3381</td>
<td>Spanish Current Affairs</td>
<td>3 cr</td>
</tr>
<tr>
<td>SPAN 4400</td>
<td>Spanish Advanced Grammar</td>
<td>3 cr</td>
</tr>
<tr>
<td>SPAN 4410</td>
<td>Spanish Medieval through Golden Age Literature</td>
<td>3 cr</td>
</tr>
<tr>
<td>SPAN 4465</td>
<td>Contemporary Spanish American Literature</td>
<td>3 cr</td>
</tr>
<tr>
<td>SPAN 4470</td>
<td>Readings in Spanish</td>
<td>2 cr</td>
</tr>
<tr>
<td>SPAN 4480</td>
<td>Independent Studies in Spanish</td>
<td>3 cr</td>
</tr>
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<td>SPAN 4490</td>
<td>Spanish Senior Seminar</td>
<td>3 cr</td>
</tr>
<tr>
<td>POLS 4432</td>
<td>Comparative Politics: Change and Political Order</td>
<td>3 cr</td>
</tr>
<tr>
<td>POLS 4433</td>
<td>Topics in National/Regional Studies</td>
<td>3 cr</td>
</tr>
<tr>
<td>POLS 4435*</td>
<td><em>(in consultation with your advisor and when the topic relates to this area of concentration)</em></td>
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</tbody>
</table>

**C. The United States and World Affairs**

This area of concentration is for those students whose primary interest is in American foreign policy and national security affairs. No more than twelve (12) of the required eighteen (18) credits may be taken from the offering of a single department.

**Communication and Rhetorical Studies**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>COMM 4452</td>
<td>Conflict Management</td>
<td>3 cr</td>
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**Economics**

<table>
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<tr>
<td>ECON 4434</td>
<td>International Trade</td>
<td>3 cr</td>
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<tr>
<td>ECON 4435</td>
<td>International Finance</td>
<td>3 cr</td>
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</table>

**History**

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<tr>
<td>HIST 3309</td>
<td>Modern United States</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIST 4429</td>
<td>Foreign Relations Since 1900</td>
<td>3 cr</td>
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**Political Science**

<table>
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<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>POLS 3326</td>
<td>Recent American Foreign Policy</td>
<td>3 cr</td>
</tr>
<tr>
<td>POLS 4403</td>
<td>The Presidency</td>
<td>3 cr</td>
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<tr>
<td>POLS 4404</td>
<td>The Legislative Process</td>
<td>3 cr</td>
</tr>
<tr>
<td>POLS 4425*</td>
<td>Topics in International Politics</td>
<td>3 cr</td>
</tr>
<tr>
<td>POLS 4434</td>
<td>Terrorism and Political Violence</td>
<td>3 cr</td>
</tr>
<tr>
<td>POLS 4453</td>
<td>Public Policy Analysis</td>
<td>3 cr</td>
</tr>
<tr>
<td><em>(in consultation with your advisor and when the topic relates to American foreign policy)</em></td>
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</table>

**3. Electives**

Ten (10) credits to be selected from either courses listed in Areas of Concentration A, B, and C and not taken to fulfill the requirements for one of those Concentration; or the courses listed below; or a mixture of Concentration courses and those listed here.

**Anthropology**

<table>
<thead>
<tr>
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<th>Credits</th>
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<tbody>
<tr>
<td>ANTH 4423</td>
<td>Anthropology of International Health</td>
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**Business**

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<tbody>
<tr>
<td>FIN 4475</td>
<td>International Corporate Finance</td>
<td>3 cr</td>
</tr>
<tr>
<td>MGT 4465</td>
<td>International Business</td>
<td>3 cr</td>
</tr>
<tr>
<td>MKTG 4465</td>
<td>International Marketing</td>
<td>3 cr</td>
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**Communication and Rhetorical Studies**

<table>
<thead>
<tr>
<th>Course</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>COMM 4447</td>
<td>Rhetoric of Hitler and Churchill</td>
<td>3 cr</td>
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**English**

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<th>Credits</th>
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<tr>
<td>ENGL 4455/CMLT 4415</td>
<td>Studies in National Literature</td>
<td>3 cr</td>
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<tr>
<td>ENGL 4456</td>
<td>Comparative Literature</td>
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**History**

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<tr>
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<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HIST 2223</td>
<td>Medieval Europe</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIST 4435</td>
<td>Colonial Frontiers in America and Africa</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIST 4441</td>
<td>The Viking Age</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIST 4443</td>
<td>English History</td>
<td>3 cr</td>
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<tr>
<td>HIST 4444</td>
<td>Victorian England and After</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIST 4448</td>
<td>Medieval Social and Economic History</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIST 4478</td>
<td>Imperialism and Progressivism</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIST 4490</td>
<td>Cartography: History and Design</td>
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**International Studies**

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<tr>
<td>IS 2200</td>
<td>Simulation</td>
<td>1 cr</td>
</tr>
<tr>
<td>IS 3300</td>
<td>Travel and Study Abroad</td>
<td>3 or 6 cr</td>
</tr>
<tr>
<td>IS 3301</td>
<td>Seminar: the International World</td>
<td>1-3 cr</td>
</tr>
<tr>
<td>IS 3350</td>
<td>International Symposium</td>
<td>1 cr</td>
</tr>
<tr>
<td>IS 4400</td>
<td>Simulation</td>
<td>1 cr</td>
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**Political Science**

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<td>POLS 4492*</td>
<td>Seminar</td>
<td>1-3 cr</td>
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**Sociology**

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<td>SOC 3368</td>
<td>Sociology of Religion</td>
<td>3 cr</td>
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**Minor in International Studies**

**General Requirements**

1. Eight (8) credits in a foreign language or the equivalent demonstrated competency.

2. Economics 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:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>POLS 2221</td>
<td>Introduction to International Relations</td>
<td>3 cr</td>
</tr>
<tr>
<td>IS 2200</td>
<td>Simulation</td>
<td>1 cr</td>
</tr>
<tr>
<td>IS 4400</td>
<td>Simulation</td>
<td>1 cr</td>
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**Electives**


**International Studies Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IS 2200</td>
<td>Simulation</td>
<td>1 cr</td>
</tr>
</tbody>
</table>
majors and minors. May be repeated for up to 2 credits. F, S

IS 3300 Travel and Study Abroad 3 or 6 credits. Travel and study abroad through student exchange programs and other supervised experience. PREREQ: Approval of the Director of International Studies. F, S

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

IS 3350 International Symposium 1 credit. Active participation in organizing the annual Frank Church Symposium for International Affairs, and attendance at the sessions. May be repeated for a maximum of 8 credits. F, S

IS 4400 Simulation 1 credit. 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 credits. 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

Department of Languages and Literatures

Director and Professor: Park
Professor: Sieber
Associate Professors: Hunt, Tarp
Senior Lecturers: Heath
Assistant Lecturers: Bassett, Dillon, Fukuo, McCurry, Robredo
Adjunct Faculty: Coffield, Stringfellow-Brookman, Tatarova, Yonk
Emeriti: Dolsen, Nickisch

Mission

The goal of the Department of Languages and Literatures is to teach skills in speaking, listening, reading, and writing in languages other than English; to increase the student’s understanding of the history, traditions, literature, and civilization associated with the language of study; and to develop the critical, analytical, and composition skills necessary to use the language in the profession of choice.

The Department of Languages and Literatures offers a Bachelor of Arts (B.A.) degree in French, German, and Spanish, intended to prepare students for admission to graduate school; for careers in international organizations, government, and business; and for public school teaching and certification in cooperation with the College of Education. 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, Russian, and Shoshoni, provide an important component of the student’s 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 Languages and Literatures, 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 languages.

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 a placement test to determine the appropriate course in which to enroll. Placement tests are offered in the Counseling and Testing Center on the Second Floor (South Wing) of Graveley Hall. Results are available immediately upon completion of the exam. Students who have questions about how to determine an appropriate course after taking a placement exam should contact the Department of Languages and Literatures at (208) 282-3630. Students who have no experience in a language should enroll in the first course in the language (i.e., FREN 1101).

C.L.E.P. Credit

Students who speak French, German, or Spanish at home or who have earned the language abroad can receive credits by examination (C.L.E.P.) to be applied to their transcripts with an “S” grade (16 credits maximum). Students who gain the C.L.E.P. credits may partially fulfill Objective 4 of the General Education Requirements by taking one sequence course in the language in which they have gained the credits (e.g. 8 C.L.E.P. credits plus SPAN 2201, or 16 credits plus SPAN 3301). No C.L.E.P. exams are available for other languages. For further information, see the department secretary.

Other Language Exams

Students who have learned languages other than French, German, or Spanish may partially satisfy Objective 4 of the General Education Requirements by successfully completing one of the proficiency exams developed by Brigham Young University for a number of rarely taught languages. Applications for this exam may be obtained in the office of the Department of Languages and Literatures (Business Administration Building, Room 338-A).

Language Requirement for International Students

International students cannot apply their native languages to partial fulfillment of Objective 4 of the General Education Requirements. Instead, their passing English 1101 and 1102 with at least a C-average will serve the dual purpose of fulfilling Objective 1 and partially fulfilling Objective 4.

General Education Requirements

1. To complete a major or minor in a foreign language, the student must fulfill 8 of the 9 General Education Objectives (a minimum of 36 credits--see Academic Information section of this Catalog).

2. The following 3 credit courses taught in English fulfill Objective 9: CMLT 2207, Contemporary European Culture; CMLT 2208, Cultures of the Spanish-Speaking World; CMLT 2209, Cultures of Asia.

3. ANTH/ENGL/LANG 1107 satisfies General Education Objective 7.

4. One semester of Arabic, Chinese, French, German, Japanese, Latin, Russian, Shoshoni, or Spanish at the elementary level may be taken to partially fulfill Objective 4.

5. One semester of Arabic, Chinese, French, German, Japanese, Latin, Russian, Shoshoni, or Spanish at the intermediate level may be taken to fulfill Objective 9.

Language Laboratory

The department maintains language laboratories on both the Pocatello and Idaho Falls campuses, which include tapes, CDs,
Bachelor of Arts in French, German or Spanish

All courses required for the majors and minors listed below must be completed with a minimum grade of 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 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 French

Language Component:

FREN 2201 Intermediate French I 4 cr
FREN 2202 Intermediate French II 4 cr
FREN 3301 Intermediate French and Composition I 3 cr
FREN 3302 Intermediate French and Composition II 3 cr
FREN 3341 Survey of French Literature and Civilization I 3 cr
FREN 3342 Survey of French Literature and Civilization II 3 cr
Choose Option 1 or Option 2 below 18 or 22 cr

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 the 3305 course in French.

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

A – Recommended for students without immersion experiences or who enter language study below the 3000 level

FREN 2200 Intermediate Enrichment* 3-4 cr
FREN 3300 Intensive Conversation 3 cr
CMLT 2207 Contemporary European Culture 3 cr
CMLT 2208 Cultures of the Spanish-Speaking World 3 cr

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

B – Recommended for students with immersion experiences or who enter language study at the 3000 level

ANTH 2250 Introduction to Sociocultural Anthropology 3 cr
CMLT 2207 Contemporary European Culture 3 OR
CMLT 2208 Cultures of the Spanish-Speaking World 3 cr
HIST 2249 World Regional Geography 3 cr
LANG 1107 Nature of Language 3 cr
POLS 2221 Introduction to International Relations 3 cr

Option 2: Second Language: 22 Additional Credits

Second language: German, Japanese, or Spanish. 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

Option 1: 18 Additional Credits

Select at least 12 credits from elective upper-division courses in German, 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 the 3305 course in German.

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

A – Recommended for students without immersion experiences or who enter language study below the 3000 level

GERM 2200 Intermediate Enrichment* 3-4 cr
GERM 3300 Intermediate German I 4 cr
GERM 3301 Intermediate German II 4 cr
GERM 3302 German Conversation and Composition I 3 cr
GERM 3303 German Conversation and Composition II 3 cr
GERM 3341 Survey of German and Civilization I 3 cr
GERM 3342 Survey of German and Civilization II 3 cr

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

B – Recommended for students with immersion experiences or who enter language study at the 3000 level

ANTH 2250 Introduction to Sociocultural Anthropology 3 cr
CMLT 2207 Contemporary European Culture 3 cr
CMLT 2208 Cultures of the Spanish-Speaking World 3 cr
HIST 2249 World Regional Geography 3 cr
LANG 1107 Nature of Language 3 cr
POLS 2221 Introduction to International Relations 3 cr

Option 2: Second Language: 22 Additional Credits

Second language: French, Japanese, or Spanish. 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

Option 1: 18 Additional Credits

Select at least 12 credits from elective upper-division courses in Spanish, 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 the 3305 course in Spanish.

Students may select 6 of these 18 credits from courses in lists A and B, below:
A -- Recommended for students without immersion experiences or who enter language study below the 3000 level
CMLT 2207 Contemporary European Culture 3 cr
CMLT 2208 Cultures of the Spanish-Speaking World 3 cr
*This is a variable-credit course repeated to obtain the required number of credits.

B -- Recommended for students with immersion experiences or who enter language study at the 3000 level
B 2201 and 2202 Intermediate French I and II 8 cr
Choose ONE of the following two courses (3 cr):
CMLT 2207 Contemporary European Culture 3 cr
B 3301 or 3302 Intermediate I and II 8 cr
Choose one course:
CMLT 2208 Cultures of the Spanish-Speaking World 3 cr
CMLT 2209 Cultures of Asia 3 cr
*This is a variable-credit course that must be repeated to obtain at least 2 credits.

Bachelor of Arts in French, German or Spanish for Business and Professions

Students take the following courses in their chosen language (French, German, or Spanish--FREN, GERM, or SPAN):
CMLT 2207 Contemporary European Culture 3 cr
CMLT 2208 Cultures of the Spanish-Speaking World 3 cr

And:
Choose ONE of the following two courses (3 cr):
CMLT 2207 Contemporary European Culture 3 cr
CMLT 2208 Cultures of the Spanish-Speaking World 3 cr

Associate of Arts Degree

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

Choose one course:
CMLT 2207 Contemporary European Culture 3 cr
CMLT 2208 Cultures of the Spanish-Speaking World 3 cr
CMLT 2209 Cultures of Asia 3 cr

In addition: Electives to bring total to 64 cr.

*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.

Arabic Courses

ARBC 1000A Guided Self Study 1 credit.
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 credit.
Continued practice in the Arabic language.
via a computerized program in the Language Laboratory. Students work at their own pace. PREREQ: ARBC 1000A. F, S

**ARBC 1101 Elementary Arabic I 4 credits.** Basic communication skills and grammatical structures of Arabic and introduction to cultures of Arabic-speaking countries. Practice in the language laboratory is required. Partially satisfies Objective 4 of the General Education Requirements. D

**ARBC 1102 Elementary Arabic II 4 credits.** 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 2201 Intermediate Arabic I 4 credits.** 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 4 of the General Education Requirements. D

**ARBC 2202 Intermediate Arabic II 4 credits.** Continuation of ARBC 2201. PREREQ: ARBC 2201 or equivalent. Satisfies Objective 9 of the General Education Requirements. D

**ARBC 2205 Study Abroad 3-6 credits.** 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

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**Chinese Courses**

**CHNS 1000A Guided Self Study 1 credit.** 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 credit.** 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 credits.** 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 credits.** 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 credits.** 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 credits.** Continuation of CHNS 2201. PREREQ: CHNS 2201 or equivalent. Satisfies Objective 9 of the General Education Requirements. D

**CHNS 2205 Study Abroad 3-6 credits.** 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 Literature Courses**

**CMLT 2207 Contemporary European Culture 3 credits.** 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. S

**CMLT 2208 Cultures of the Spanish-Speaking World 3 credits.** Topics in art, history, literature and film of Spain, Spanish-America and Latino USA. Taught in English. Satisfies Objective 9 of the General Education Requirements. F, S

**CMLT 2209 Cultures of Asia 3 credits.** Overview of the cultures of China, Japan, and Korea, intended to help the student understand each within the framework of East Asian civilization, their historical importance and the crucial role they play in the world today. Satisfies Objective 9 of the General Education Requirements. F

**CMLT 2220 Introduction to International Film Studies 3 credits.** 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 credits.** 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 credits.** The application of critical theory to the reading of world literature. Taught in English. PREREQ: ENGL 1102. D

**CMLT 4415 Studies in National Literatures 3 credits.** 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 credits.** 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 credits.** 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

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**French Courses**

**FREN 1101 Elementary French I 4 credits.** 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 credits.** 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 credits.** 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 FREN 1102. F, S, Su

**FREN 2201 Intermediate French I 4 credits.** 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 credits.** 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. Partially satisfies Objective 4 of the General Education Requirements. F

**FREN 2205 Study Abroad 3-6 credits.** 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 credits.** 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 credits.** 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 credits.** Intensive practice speaking and writing French in forms and styles common to
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 credits. Intensive practice speaking, reading and writing in French in business, medical, legal, or other professions. PREREQ: FREN 2202 or equivalent experience. May be repeated for up to 6 credits with different content. D

FREN 3305 Study Abroad 1-6 credits. 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 credits. Comprehensive overview of the main currents of French cultural history and literature. Conducted in French. PREREQ: FREN 2202 or equivalent. D

FREN 3342 Survey of French Literature and Civilization II 3 credits. Comprehensive overview of the main currents of French cultural history and literature. Conducted in French. PREREQ: FREN 2202 or equivalent. D

FREN 3375 Topics in Culture and Literature 3 credits. Explore a topic of interest in French literature and culture through the study of a wide variety of literary and cultural texts. May be repeated 3 times with different content. PREREQ: C- in CMLT 3360 or FREN 3302 or FREN 3301 or FREN 3303 or FREN 3310 or may be taken concurrently. F, S

FREN 3381 French Current Affairs 3 credits. Study of contemporary French culture through an examination of current sociocultural issues in French-speaking countries. Conducted in French. D

FREN 4400 French Advanced Grammar 3 credits. Survey of selected grammar and composition topics on the advanced level. PREREQ: Permission of instructor. D

FREN 4465 French Translation and Interpretation 3 credits. 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 a different content. PREREQ: Permission of instructor. COREQ: FREN 4465L. D

FREN 4465L Translation and Interpretation Laboratory 1-3 credits. Intensive application of interpretation practices and procedures presented in FREN 4465. May be repeated 3 times with different content. Lab testing and materials fee $25.00. PREREQ: C- in FREN 3301 or FREN 3302 (may be taken concurrently). COREQ: FREN 4465. D

FREN 4470 Readings in French 2 credits. Reading, discussion, and preparation of reports on selected topics in French literature. May be repeated for up to 6 credits with different content. Conducted in French. PREREQ: Permission of instructor. D

FREN 4475 Topics in Culture and Literature 3 credits. Explore a topic of interest in French literature and culture at a more advanced level through the study of a wide variety of literary and cultural texts. May be repeated 3 times with different content. PREREQ: C- in CMLT 3360 or FREN 3301 or FREN 3302. F, S

FREN 4480 Independent Studies in French 3 credits. A directed project, under the guidance of an instructor, emphasizing individual study or research according to the needs of the student. PREREQ: Permission of instructor. D

FREN 4490 French Senior Seminar 3 credits. 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. Permission of instructor. D

FREN 4493 French Internship 1-3 credits. 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 credits. 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. D

German Courses

GERM 1101 Elementary German I 4 credits. Intended to teach students basic communicative 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. May be repeated for a maximum of 3 credits. GRADING: S,U. D

GERM 1102 Elementary German II 4 credits. Intended to teach students basic communicative 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 credits. 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 credits. Extensive review of grammatical structures and continued emphasis on developing students’ communication skills in German. Practice in the language laboratory is required. PREREQ: GERM 1102 or equivalent. Partially satisfies Objective 9 of the General Education Requirements. F

GERM 2202 Intermediate German II 4 credits. Extensive review of grammatical structures and continued emphasis on developing students’ communication skills in German. Practice in the language laboratory is required. PREREQ: GERM 2201 or equivalent. Satisfies Objective 9 of the General Education Requirements. S

GERM 2205 Study Abroad 3-6 credits. 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 credits. Students who have 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. Recommended for declared GERM Major, or graduate student. PREREQ: C- in GERM 2202 and permission of instructor. D

GERM 3301 German Conversation and Composition I 3 credits. 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 credits. 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 credits. 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 experience. D

GERM 3305 Study Abroad 1-6 credits. 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 credits. 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 credits. 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 credits. 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. PREREQ: C- in CMLT 3360 or GERM 3301 or GERM 3302 (may be taken concurrently). F, S

GERM 3381 German Current Affairs 3 credits. Study of contemporary German culture through an examination of current sociocultural issues in the German-speaking world. Conducted in German. D

GERM 4460 German Translation and Interpretation 3 credits. 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 credits. Intensive application of interpretation practices and procedures presented in GERM 4460. May be repeated 3 times with different content. Lab testing and materials fee $25.00. PREREQ: C- in GERM 3301 or GERM 3302 (may be taken concurrently). COREQ: GERM 4460. D

GERM 4470 Readings in German 2 credits. 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 credits. 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 GMLT 3360 or GERM 3301 or GERM 3302. F, S

GERM 4480 Independent Studies in German 3 credits. 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 credits. 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 credits. 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 credits. 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. D

Japanese Courses

JAPN 1101 Elementary Japanese I 4 credits. 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

JAPN 1102 Elementary Japanese II 4 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 Conversation and Composition II 3 credits. Intensive practice speaking and writing Japanese in forms and styles common to economics, politics, science, society, the arts and creative writing of the Japanese-speaking world. PREREQ: JAPN 2202 or equivalent. S

JAPN 3303 Professional Japanese 3 credits. 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 credits. 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 credits. 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 credits. 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 4470 Readings in Japanese 2 credits. 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

Language Courses

LANG 1107 Nature of Language 3 credits. 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. Satisfies Objective 7 of the General Education Requirements. S

LANG 4437 The Teaching of Foreign Languages 3 credits. Study of the various methods used in teaching foreign languages, the extent and scope of language courses; the selection of suitable text books; audiovisual techniques and their contribution to language instruction. PREREQ: Permission of instructor. S

LANG 4455 Introduction to Phonetics 3 credits. 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 credits. 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 credits. 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 Objective 9. D

LANG 4477 Phonology 3 credits. Study of articulatory phonetics and practice in phonetic transcription of a broad survey of languages; phonological analysis and theory. D
Latin Courses

LATN 1101 Elementary Latin I 4 credits. Intended to teach students basic reading skills and grammatical structures in Latin and to acquaint them with the culture of Ancient Rome. Practice in the language laboratory is required. Partially satisfies Objective 4 of the General Education Requirements. D

LATN 1102 Elementary Latin II 4 credits. Intended to teach students basic reading skills and grammatical structures in Latin and to acquaint them with the culture of Ancient Rome. Practice in the language laboratory is required. Partially satisfies Objective 4 of the General Education Requirements. D

LATN 2201 Intermediate Latin I 4 credits. Review and further study of Latin grammar. Readings from various authors. Study of one book of Virgil’s Aeneid. Satisfies Objective 9 of the General Education Requirements. PREREQ: LATN 1102 or equivalent. D

LATN 2202 Intermediate Latin II 4 credits. Review and further study of Latin grammar. Readings from various authors. Study of one book of Virgil’s Aeneid. PREREQ: LATN 2201 or equivalent. Satisfies Objective 9 of the General Education Requirements. D

LATN 4470 Readings in Latin 2 credits. Reading, discussion, and writing on selected topics in Latin literature. May be repeated for up to 6 credits with different content. PREREQ: Permission of instructor. D

Russian Courses

RUSS 1101 Elementary Russian I 4 credits. 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 credits. 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. D

Shoshoni Courses

SHOS 1101 Elementary Shoshoni I 4 credits. 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 credits. Furthering basic communication skills and grammar of Shoshoni and introduction to Shoshoni culture. Equivalent to ANTH 1102. PREREQ: ANTH/SHOS 1101. Partially satisfies Objective 4 of the General Education Requirements. S

SHOS 2201 Intermediate Shoshoni I 4 credits. 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 2201. PREREQ: ANTH/SHOS 1102 or equivalent. Partially satisfies Objective 9 of the General Education Requirements. F

SHOS 2202 Intermediate Shoshoni II 4 credits. 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: ANTH/SHOS 2201 or equivalent. Satisfies Objective 9 of the General Education Requirements. S

Spanish Courses

SPAN 1101 Elementary Spanish I 4 credits. Intended to teach students basic communication skills and grammatical structures in Spanish and to acquaint them with the culture of the Spanish-speaking countries. Practice in the language laboratory is required. PREREQ: SPAN 1101 or equivalent. Partially satisfies Objective 4 of the General Education Requirements. F, S

SPAN 1102 Elementary Spanish II 4 credits. Intended to teach students basic communication skills and grammatical structures in Spanish and to acquaint them with the culture of the Spanish-speaking countries. Practice in the language laboratory is required. PREREQ: SPAN 1102 or equivalent. Partially satisfies Objective 4 of the General Education Requirements. F, S

SPAN 2200 Intermediate Enrichment 1-4 credits. 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 SPAN 1102. COREQ: SPAN 2201 or SPAN 2202. F, S, Su

SPAN 2201 Intermediate Spanish I 4 credits. 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. Practice in the language laboratory is required. PREREQ: SPAN 1102 or equivalent. Satisfies Objective 9 of the General Education Requirements. F, S

SPAN 2202 Intermediate Spanish II 4 credits. 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. Practice in the language laboratory is required. PREREQ: SPAN 2201 or equivalent. Satisfies Objective 9 of the General Education Requirements. F, S

SPAN 2205 Study Abroad 3-6 credits. 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

ROSS 4470 Readings in Russian 2 credits. Reading, discussion, and writing on selected topics in Russian literature. May be repeated for up to 6 credits with different content. Conducted in Russian. PREREQ: Permission of instructor. D
munication. 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 credits. 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 Span-

...ish 8 credits. Concepts and content of SPAN 2201 and SPAN 2202 in one semester. Lab hours required. PREREQ: C- in SPAN 2202 or equivalent, and permission of instructor. D

SPAN 3300 Intensive Conversation 3 credits. Students who have not had an immersion experience but who have completed intermediate coursework, 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 Com-

...osition 13 credits. 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 Com-

...osition II 3 credits. 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 credits. 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 credits. 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 Civiliza-

...on 2202 or equivalent. AF

SPAN 3342 Survey of Latin American Litera-

...ture and Civilization 3 credits. Comprehensive overview of main currents of Peninsular cultural history and literature. Conducted in Spanish. PREREQ: SPAN 2202 or equivalent. S

SPAN 3375 Topics in Culture and Literature 3 credits. 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 (may be taken concurrently). F, S

SPAN 3381 Hispanic Current Affairs 3 credits. Study of contemporary Hispanic culture through an examination of current sociocultural issues in Spanish speaking countries. Conducted in Spanish. R3

SPAN 4400 Spanish Advanced Grammar 3 credits. 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 3 credits. 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: SPAN 4460L. D

SPAN 4460L Translation and Interpretation Laboratory 1-3 credits. Intensive application of interpretation practices and procedures presented in SPAN 4460. May be repeated 3 times with different content. Lab testing and materials fee $25.00. PREREQ: C- in SPAN 3301 or SPAN 3302 (may be taken concurrently). COREQ: SPAN 4460. D

SPAN 4470 Readings in Spanish 2 credits. 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 or permission of instructor. D

SPAN 4475 Topics in Culture and Literature 3 credits. 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 credits. 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 or permission of instructor. D

SPAN 4490 Spanish Senior Seminar 3 credits. 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 credits. 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. F, S

SPAN 4495 Topics in Language and Culture for the Professions 1-3 credits. Enhance and supplement linguistic and cultural proficiency in a variety of professional contexts. May be repeated with different content for a total of 3 credits. Graded S/U. D

Leadership Studies Program

Director and Professor: DiSanza
(Communication and Rhetorical Studies)

Mission

The Leadership minor provides students with a conceptual and practical understanding of the art and science of leading others. Contrary to some popular judgments, leadership is a competency that can be improved with knowledge and practice. Effective leaders need to maintain and strengthen the increasingly complex interactions that make up the modern organization or social movement. The Leadership minor provides students with an understanding of historical and modern conceptions of leadership, as well as the skills needed to transform opinion and guide decisions in today’s diverse cultural climate. What students learn in the Leadership program at Idaho State University will prepare them to assume leadership positions in a variety of not-for-profit, community, high technology, and industrial settings.

The program of studies in the Leadership minor includes subject matter in goal setting, team building, individual persuasion, facilitation, problem-solving, consensus building, decision-making, project management, and organizational change and development, as well as various historical, ethical, and cultural understandings of leadership.

Practical experience is included to provide students with the opportunity to identify their leadership strengths and further develop their abilities. This minor complements a wide variety of academic majors, including business, health professions, political science, the hard sciences, education, military science, and communication.

Interdisciplinary Minor in Leadership Studies (21 credits)

Core Courses (9 credits)
LEAD 2201 Foundations of Leadership 3 cr
LEAD 3360 Student Leadership Practicum 3 cr
LEAD 4480 Leadership Capstone 3 cr

Emphasis Courses (12 credits)

Students will take one three-credit course in each of the following four emphasis areas:
Organizational/Interpersonal
COMM 3308  Persuasion  3 cr
MGT 4441  Organizational Behavior  3 cr
(PREREQ: MGT 3312)
COMM 4441  Interpersonal Communication  3 cr
POLS 4451  Organizational Theory
and Bureaucratic Structure  3 cr
(PREREQ: POLS 4405 recommended)
COMM 4452  Conflict Management  3 cr

Cultural Understanding
SOC 2248  Critical Analysis of Society  3 cr
MGT 4465  Internship  3 cr
(PREREQ: ECON 2202, FIN 3317)

Leaders
POLS 4403  The Presidency  3 cr
HIST/WS 4439  Feminism and Equality
in World History  3 cr
COMM 4447  Rhetoric of Hitler and Churchill  3 cr

Ethics
PHIL 4450  Ethical Theory  3 cr
POLS 4458  Public Administration Ethics  3 cr
MGT 4462  Business and Society  3 cr

LEAD Courses
SPECIAL NOTE: Students who fail to attend the first class meeting may be disenrolled.

LEAD 2201 Foundations of Leadership 3 credits. Introductory exploration of the modern dimensions of leadership. Students will link current theory and practices to personal self-assessment and behavioral applications. F, S

LEAD 3360 Student Leadership Practicum 1-3 credits. Supervised leadership experience through placement in a campus or community organization. Includes discussion and analysis with peers. May be repeated for up to 3 credits. PREREQ: LEAD 2201. F, S

LEAD 4480 Leadership Capstone 3 credits. Capstone overview for participants in the Leadership minor, challenging the students to integrate their previous course work within the minor, and emphasizing the importance of community involvement, service, and ethical behavior. PREREQ: LEAD 3360 and permission of the instructor. S

Adjunct Faculty: Blair
Emeriti: House, Mauch, Trinklein

Departmental Goals
The goals for Mass Communication majors are as follows:

1. The ability to communicate effectively in writing.
2. The ability to communicate effectively orally.
3. The ability to solve problems that arise in a professional setting.
4. Skills in television, journalism, photography, graphic design, advertising, and public relations appropriate for entry-level position.
5. Sufficient general knowledge to pursue a successful career in mass communication.
6. The ability to gain the necessary skills for advancement in a career in mass communication.
7. The ability to criticize their own work effectively.
8. The ability to present and accept constructive criticism.

MAJOR DEPARTMENTAL GOALS
Each area of study in mass communication emphasizes the importance of a strong liberal arts education to students preparing for careers in the media and mass communication. Effective communication in any form depends upon an adequate breadth of knowledge.

Degree Options in Mass Communication
For the Bachelor of Arts in Mass Communication, five emphases are available: Advertising, Journalism, Public Relations, Television, and Visual Communication. Each emphasis requires an additional 15 credits from a selected component of specialized study outside the department. These emphases are designed to give practical as well as theoretical skills in specific areas. The department also offers a Bachelor of Arts in Theatre, Film, and Video, in cooperation with the Department of Theatre and Dance in the School of Performing Arts, for students interested in a career in producing, directing, and recording live performances.

Admission to Major Status
Students wishing to major in emphases offered in the Department of Mass Communication must fulfill the following requirements:

1. Be officially admitted to Idaho State University.
2. Successfully complete the following lower division courses or their equivalents:
MC 1119  Introduction to Mass Media  3 cr
MC 1121  Reporting and Newswriting, and Lab  4 cr
MC 2215  Graphic Design  3 cr
OR (depending on emphasis)
MC 2230, 2230L  Introduction to Photography, and Lab  3 cr
8 of the 9 General Education Objectives (min) 36 cr
3. Have a minimum overall cumulative grade point average of 2.0.
4. Submit to the Department of Mass Communication an official copy of their transcript and a complete application form. Application forms are available in the Mass Communication office, and this process must be completed by April 1 for Fall admission to major status and November 1 for Spring admission.

No student will be admitted to the Mass Communication major without completing these requirements.

Students are eligible to declare Mass Communication as their major and can be admitted to the Mass Communication major only after completing the requirements for admission to major status. This application is usually done in the sophomore year. Majors must complete MATH 1108 Intermediate Algebra and MATH 1153 Introduction to Statistics or their equivalents. Majors must also earn a grade of C- or better in all Mass Communication courses.

All students must be advised each semester before graduation.

SPECIAL NOTE: Students who fail to attend the first class meeting may be disenrolled.

Bachelor of Arts in Mass Communication
Select one of the following emphases:

Emphasis in Advertising

Required Mass Communication Courses
MC 1119  Introduction to Mass Media  3 cr
MC 1121  Reporting and Newswriting  4 cr
MC 2215  Graphic Design  3 cr

The James E. Rogers Department of Mass Communication
Chair and Professor: DiSanza
Professors: Frazier, Jull
Associate Professors: Beachboard, Kim, Terry
Assistant Professor: Hallaq
Emphasis in Journalism

Required Courses:
MC 1119 Introduction to Mass Media 3 cr
MC 1121 Reporting and Newswriting 4 cr
MC 2230,2230L Introduction to Photography, and Lab 3 cr
MC 2270 Journalism History 3 cr
MC 3321 Reporting of Public Affairs 3 cr
MC 3325 Editing for Print Media 4 cr
MC 4440 Media Law and Ethics 3 cr
MC 4452 Mass Communication and Society 3 cr

Plus ONE of the following courses:
MC 2215 Graphic Design 3 cr
MC 2260 Photo and Graphic Design 3 cr
MC 3305,3305L Photo Communication, and Lab 3 cr
MC 3315 Intermediate Graphic Design 3 cr
MC 3327 Magazine Article Writing 3 cr
MC 4445 Editorial Writing 3 cr

In Addition:
Components, listed below 15 cr

The Department also strongly recommends:
MC 4494 Media Internship 1-3 cr

Emphasis in Public Relations

Required Mass Communication Courses
MC 1119 Introduction to Mass Media 3 cr
MC 1121 Reporting and Newswriting 4 cr
MC 2215 Graphic Design 3 cr
MC 2230,2230L Introduction to Photography, and Lab 3 cr
MC 4452 Mass Communication and Society 3 cr

Public Relations Core Courses
MC 2241 Introduction to Public Relations 3 cr
MC 3343 Public Relations Principles and Concepts 3 cr
MC 3367/MKTG 3368 Advertising Media Planning 3 cr
MC 4480 Public Relations Programs 3 cr
MC/MKTG 4495 Applied Research Methods 3 cr

Additional Required Mass Communication Courses--Select TWO of the following:
MC 2260 Photo and Graphic Design 3 cr
MC 3300 Television Production 3 cr
MC 3315 Intermediate Graphic Design 3 cr
MC 3350 New Media 3 cr
MC 3355 Advertising Copywriting 3 cr
MC 3375 Special Projects in Advertising 3 cr
MC 4440 Media Law and Ethics 3 cr
MC 4441 Intellectual Property and Commercial Speech 3 cr

Emphasis in Visual Communication

Required Courses:
MC 1119 Introduction to Mass Media 3 cr
MC 1121 Reporting and Newswriting 4 cr
MC 2215 Graphic Design 3 cr
MC 2230,2230L Introduction to Photography, and Lab 3 cr
MC 2260 Photo and Graphic Design 3 cr
MC 4440 Media Law and Ethics 3 cr
MC 4441 Intellectual Property and Commercial Speech 3 cr
MC 4452 Mass Communication and Society 3 cr

Graphics Track students also must take:
MC 3315 Intermediate Graphic Design 3 cr
MC 4415 Advanced Issues in Graphic Design 3 cr
ART/MC 4418 Art of the Book 3 cr
MC 4470 Communication through Web Design 3 cr
MC 4425 Senior Graphics Portfolio 1 cr

Photography Track students also must take:
MC 2210 History and Appreciation of Photography 3 cr
MC 3305 Photo Communication 3 cr
MC 4405 Color Printing 3 cr
MC 4410 Advanced Photography 3 cr
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

Freshman Year (32 credits)

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MC 1119</td>
<td>Introduction to Mass Media</td>
<td>3 cr</td>
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<tr>
<td>MC 2260</td>
<td>Photo and Graphic Design</td>
<td>3 cr</td>
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<tr>
<td>THEA 1111</td>
<td>Stagecraft</td>
<td>3 cr</td>
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<tr>
<td>THEA 2251</td>
<td>Beginning Acting</td>
<td>3 cr</td>
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<td>General Education Objective Courses</td>
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<td>Electives*</td>
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Sophomore Year (32 credits)

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<tr>
<td>MC 2201</td>
<td>Writing for the Camera</td>
<td>2 cr</td>
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<tr>
<td>MC 3300</td>
<td>Television Production</td>
<td>3 cr</td>
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<tr>
<td>THEA 2214</td>
<td>Makeup</td>
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<td>OR</td>
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<tr>
<td>THEA 3312</td>
<td>Stage Lighting Design</td>
<td>3 cr</td>
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<td>THEA 2252</td>
<td>Intermediate Acting</td>
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<td>General Education Objective Courses</td>
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<td>Electives*</td>
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Junior Year (32 credits)

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<td>MC 3306</td>
<td>Non-linear Editing</td>
<td>3 cr</td>
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<tr>
<td>MC 3360</td>
<td>Film Style Production</td>
<td>3 cr</td>
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<tr>
<td>THEA 3311</td>
<td>Introduction to Scene Design</td>
<td>3 cr</td>
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Minor in Mass Communication

A minor in Mass Communication requires 18 credits including MC 1119, MC 4452, and additional credits for a total of 18 from anywhere in the Mass Communication curriculum except MC 4494 Media Internship, which is offered to majors only. At least nine (9) of the 18 credits must be upper division. Students must have declared a major before naming Mass Communication as a minor and are responsible for meeting all prerequisites for Mass Communication courses they take. Students are encouraged to seek advisement from Mass Communication faculty.

Minors Suggested:
- Art (Studio and Art History minors)—21 credits
- Business—18 credits
- Dance—24 credits
- English (Creative Writing Option)—21 credits
Mass Communication Courses

SPECIAL NOTE: Students who fail to attend the first class meeting may be disenrolled.

Prerequisites: Students must earn a minimum C grade in prerequisite Mass Communication courses in order to meet prerequisite requirements. For example, a student must pass MC 1119 Introduction to Mass Media with a minimum of C in order to be allowed to take MC 2201 Writing for the Camera.

MC 1119 Introduction to Mass Media 3 credits. Historical and contemporary roles of newspapers, magazines, photography, film, radio and television in society. Media economics and government regulation. Sociological and psychological effects of the mass media on the individual. F

MC 1120 Writing Across the Media 3 credits Fundamentals of writing in several formats including persuasive and informative writing, scripts, captions and web pages. Topics include structure, word selection and audience identification; emphasizes clarity and concision. PREREQ: ENGL 1101 or placement into ENGL 1102. COREQ: MC 1120L. F, S, Su

MC 1120L Writing Across the Media Laboratory 1 credit. Assignments to apply principles from MC 1120. COREQ: MC 1120. F, S, Su


MC 2200 Introduction to Advertising 3 credits. In-depth study of the various aspects of advertising including agencies, media, clients, suppliers, creativity in advertising, consumers, ethics and law, strategy, and culture. Equivalent to MKTG 2200. F

MC 2201 Writing for the Camera 2 credits. Introduction to concepts and practices of writing for television, film, Internet and other time-based media. Coverage of scripting styles and content in news, entertainment, information, feature and documentary productions. PREREQ: MC 1119 and Objective 1. D

MC 2210 History and Appreciation of Photography 3 credits. 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

MC 2215 Graphic Design 3 credits. 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, Su

MC 2230 Introduction to Photography 3 credits. Introduction to the fundamentals of digital camera use, and important techniques such as lighting, 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. COREQ: MC 2230L. F, S, Su

MC 2230L Introduction to Photography Laboratory 0 credits. Assignments to apply principles from MC 2230. F, S, Su

MC 2241 Introduction to Public Relations 3 credits. Provides background in public relations, including public opinion, law and ethics, and writing PR communications, such as news releases and newsletters. PREREQ: Objective 1, MC 1119, and either MC 1120 or MC 1121. S

MC 2260 Photo and Graphic Design 3 credits. Theory, ideology, and practical application of two dimensional computer graphics production using Adobe Photoshop®. In-depth exploration of print, digital media, and web output formats. Emphasis placed on graphic visual communication techniques and strategies. D

MC 2270 Journalism History 3 credits. The development of mass media from Gutenberg to the present with emphasis on American print journalism. R2

MC 2290 American Broadcasting 3 credits. Introduction to the history, structure, economics, programming and regulation of broadcasting in the United States. PREREQ: MC 1119. R2

MC 3300 Television Production 3 credits. Emphasis on studio and remote television production, with exercises in basic camera operation, electronic editing, studio directing and field reporting. PREREQ: MC 1119, MC 1121, MC 2230 or permission of instructor. F

MC 3305 Photo Communication 3 credits. Laboratory required. Application of still photographic methods to newspaper, magazine and advertising/public relations needs. Introduction to computer manipulation of images. PREREQ: MC 2230 or permission of instructor. COREQ or PREREQ: MC 2260. COREQ: MC 3305L. F

MC 3305L Photo Communication Laboratory 0 credits. Assignments to apply principles from MC 3305. F

MC 3306 Non-linear Editing 3 credits. Application of visual storytelling techniques, styles, and devices used in digital video production. In-depth exploration and usage of Apple’s Final Cut Pro™ used to increase student understanding of visual syntax and timing. PREREQ: MC 2260 and MC 3300 or permission of instructor with demonstrated professional experience. D

MC 3315 Intermediate Graphic Design 3 credits. Explore more techniques and applications of graphic design. Emphasis on developing a deeper understanding of the foundations of type and its use. Explore the use of color and photography in printed projects. Field trips to printing shops and working professionals are part of the class. PREREQ: MC 2215. F, S

MC 3321 Reporting of Public Affairs 3 credits. Reporting news of local government, including police department, city council, school board, courts and other agencies. PREREQ: MC 1121 or media experience. COREQ: MC 3321L. D

MC 3321L Reporting of Public Affairs Laboratory 0 credits. Assignments to apply principles from MC 3321. D

MC 3325 Editing for Print Media 4 credits. Editing, typography, layout and desktop publishing of newspapers, advertising fliers, pamphlets. Emphasis on laboratory projects. COREQ: MC 3325L. F

MC 3325L Editing for Print Media Laboratory 0 credits. Assignments to apply principles from MC 3325. F

MC 3327 Magazine Article Writing 3 credits. Writing nonfiction magazine articles to the requirements of publications chosen by the student. COREQ: MC 3327L. D

MC 3327L Magazine Article Writing Laboratory 1 credit. Assignments to apply principles from MC 3327. D

MC 3343 Public Relations Principles and Concepts 3 credits. The history, scope, ethics and functions of public relations. Particular attention given to understanding of publics and ways of gaining public support for an activity, cause, movement or institution. PREREQ: MC 1121 and MC 2241. F

MC 3350 New Media 3 credits. Development and role of cable, home video, satellites and other video delivery systems in contemporary society. Emphasis on programming, technology, economics, regulation, industry trends and future directions. AS

MC 3355 Advertising Copywriting 3 credits. Includes overview of basic creative skills, with emphasis on how to write creative advertising for print, radio, television, and the Internet. PREREQ: Objective 1, MC 1119, MC 1121, MC/MKTG 2200, and MC 2215, or permission of instructor with demonstrated professional experience. F

MC 3360 Film-Style Production 3 credits. Non-news film and video production. Focuses on creative aspects of making films and videos: sound, lighting, composition, editing, special effects, animation, etc. PREREQ: MC 3300 or permission of instructor with demonstrated professional experience. D

MC 3367 Advertising Media Planning 3 credits. 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. Equivalent to MKTG 3368. PREREQ: MC/MKTG 2200 or permission of instructor. S

MC 3375 Special Projects in Advertising 3 credits. Students work as a team to apply persuasive mass communication principles to solving a real-world marketing communication problem such as the annual AAF/NAC client case. May be repeated for up to 6 credits. Equivalent to MKTG 3375. PREREQ: Permission of instructor. D

MC 4405 Color Printing 3 credits. A digital photography class teaching practical applica-
tions of color theory in printing using photographic digital printers on a variety of materials. Weekly shooting and printing assignments required. MC 3305 is strongly recommended. PREREQ: MC 2230 and MC 2260 or permission of instructor. COREQ: MC 4405L. S

MC 4405L Color Printing Laboratory 0 credits. Assignments to apply principles from MC 4405. S

MC 4410 Advanced Photography 4 credits. Advanced black and white techniques including control of printing techniques and the Zone System. Intensive criticism of work and encouragement of individuals' photographic growth. Lectures, laboratories. PREREQ: MC 2230 and MC 2260 or permission of instructor. F

MC 4410L Advanced Photography Laboratory 0 credits. Assignments to apply principles from MC 4410. F

MC 4412 Digital Imaging 3 credits. Lab-based course on the use of digital cameras, imaging technologies, computer manipulations and printing. Emphasis on aesthetic expression unique to this photographic medium. PREREQ: MC 2260 or either MC 4405 or MC 4410; permission of instructor. S

MC 4415 Advanced Graphic Design 3 credits. Leading issues and problems in the current design field. Advanced development of design and direction in projects. Understanding of present work in the field and leading practitioners; discussion of design history and theory. Emphasis on illustration and more complex projects like package design, corporate design and printed publications. PREREQ: MC 2215 and MC 3315 or permission of instructor with demonstrated professional experience. F

MC 4418 Art of the Book 3 credits. Expands the traditional idea of book form with innovative structures and concepts. Textual and nontextual formats and methods for generating ideas for works are addressed. Traditional techniques for bookbinding will also be included. Equivalent to ART 4418. S

MC 4425 Senior Graphic Portfolio 1 credit. Create a professional portfolio for career or graduate school. Work for the portfolio must be generated in this class. Critiques require demonstrated competency in all uses of graphic design. May be offered as independent project. PREREQ: MC 2215, MC 3315, MC 4415, senior standing or instructor permission with demonstrated professional experience. D

MC 4426 Senior Photographic Portfolio 1 credit. Create a professional portfolio. Work for this portfolio must be generated in this class. Covers all uses of photography. Course may be offered as independent project. PREREQ: MC 2230, MC 2260, MC 4410 or permission of instructor with demonstrated professional experience. D

MC 4435 Television News 3 credits. Writing, reporting and producing the television newscast. Emphasis on proper technique as well as ethical and social issues. PREREQ: MC 1121, MC 3300. D

MC 4440 Media Law and Ethics 3 credits. Principles of the law of libel, privacy, obscenity, press freedom, responsibility and ethics as they apply to the news media. R2

MC 4441 Intellectual Property and Commercial Speech 3 credits. Examination of principles and laws regarding intellectual property including copyright and trademark and examination of the regulation of commercial speech. D

MC 4445 Editorial Writing 3 credits. Writing and producing the editorial page including fundamentals of column and opinion piece writing, syndication, letters to the editor, cartoons. D

MC 4450 Television Workshop 3 credits. Practical experience producing television programs for local airing. May be repeated for up to 6 credits. PREREQ: MC 2201 and 3300 or permission of instructor with demonstrated professional experience. S

MC 4451 Television Studio Directing 3 credits. Live-in studio directing of news, music and dramatic productions. Focuses on the aesthetic, organizational and leadership elements of a director. Focus on camera operation, technical directing and lighting. May not be taken concurrently with MC 4455 or MC 4450. PREREQ: MC 3300 or instructor permission with demonstrated professional experience. D

MC 4452 Mass Communication and Society 3 credits. Interface between mass media and audiences. Public right to know, press freedom, censorship, political and other leanings in the media, media effectiveness, ethics, and aspects of critical media literacy. PREREQ: 58 credits including MC 1119, MC 1121 and at least one course from the student's emphasis area. S

MC 4455 Advertising Campaigns 3 credits. Capstone course; the development of an advertising campaign; includes situation analysis, research, strategy, and creation of the advertising. PREREQ: MC/MKTG 3355 or permission of instructor. S

MC 4460 Corporate Video Production 3 credits. Producing for corporate, educational, home video, documentary and other nonfiction markets. Advanced production techniques. Major project required. MC 3300 and MC 3306 or permission of instructor with demonstrated professional experience. D

MC 4470 Communication Through Web Design 3 credits. Theory, ideology and practical application of interactive document design utilizing several different software applications. Emphasis placed on communication. Also taught within a practical and aesthetic context, ethics, current practices, purposes, styles, genres and directions in authoring for the world wide web. PREREQ: MC 2260 or permission of instructor. D

MC 4480 Public Relations Programs 3 credits. Tactics and strategies for planning public relations programs for public and private organizations. PREREQ: MC 3343 or permission of instructor. S

MC 4491 Independent Projects 1-3 credits. Under direct supervision of a department faculty member, student conducts individual projects in the field of mass communication. May be repeated for up to 6 credits. PREREQ: Permission of instructor. F, S, Su

MC 4494 Media Internship 1-3 credits. Practical experience in the media, supervised by faculty and professional journalists. Work equivalent to full time for one-half semester. PREREQ: Permission of department. Open to juniors and seniors with 3.0 GPA in major course work. F, S, Su

MC 4495 Applied Research Methods 3 credits. Introduces and develops practical methods for designing, conducting and analyzing studies used in many public relations, advertising and marketing campaigns. Students will create complete studies. Equivalent to MKTG 4495. PREREQ: MATH 1153 or MGT 2216, or permission of instructor. D

Department of Military Science (Army ROTC)

Chair and Instructor: Godfrey Affiliate Faculty: Hansen, Morrill

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.

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.

**Admission Requirements**

Advanced Course cadets must:

1. Have satisfied one of the following requirements: Successful completion of the Basic Course, the 28-day summer 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 fitness class every semester until commissioned.

**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 2, 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. Students who are in the Advanced Course (junior and senior status) and some qualifying sophomores will also receive an additional monthly subsistence (see “Financial Assistance” below).

**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.

**Required Courses/Activities**

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSL 1101, 1101L Leadership and Personal Development, and Lab</td>
<td>2 cr</td>
</tr>
<tr>
<td>MSL 1102, 1102L Introduction to Military Science, and Lab</td>
<td>2 cr</td>
</tr>
<tr>
<td>MSL 2101, 2201L Intro to Leader Development, and Lab</td>
<td>2 cr</td>
</tr>
</tbody>
</table>

**Optional:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSL 1110 Military Style Physical Fitness, Civilian Only</td>
<td>1 cr</td>
</tr>
<tr>
<td>MSL 1104 Ranger Challenge</td>
<td>1 cr</td>
</tr>
</tbody>
</table>

**b) Attendance at ROTC Leaders Training Course,** 6 cr

**c) Prior military service**

*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:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSL 3301, 3301L Adaptive Tactical Leadership, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>MSL 3302, 3302L Leadership in Changing Environments, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>MSL 3310 ROTC Physical Fitness*</td>
<td>1 cr</td>
</tr>
<tr>
<td>MSL 3320 Leadership in Military History</td>
<td>3 cr</td>
</tr>
<tr>
<td>MSL 4401, 4401L Developing Adaptive Leaders, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>MSL 4402, 4402L Leadership in a Complex World, and Lab</td>
<td>4 cr</td>
</tr>
</tbody>
</table>

**Optional:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSL 1104 Ranger Challenge</td>
<td>1 cr</td>
</tr>
<tr>
<td>MSL 3380 ROTC Nurse Summer Training</td>
<td>3 cr</td>
</tr>
<tr>
<td>MSL 3390 Leader Development and Assessment Course*</td>
<td>6 cr</td>
</tr>
<tr>
<td>MSL 4492 Military Science Internship</td>
<td>6 cr</td>
</tr>
</tbody>
</table>

* **Required if student is on scholarship and/or contracted.*

***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:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSL 3301, 3301L Adaptive Team Leadership, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>MSL 3302, 3302L Leadership in Changing Environments</td>
<td>4 cr</td>
</tr>
<tr>
<td>MSL 3310 ROTC Physical Fitness*</td>
<td>4 cr</td>
</tr>
<tr>
<td>MSL 3320 Leadership in Military History</td>
<td>3 cr</td>
</tr>
</tbody>
</table>
Military Science and Leadership Courses

MSL 1101 Leadership and Personal Development 2 credits. 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, officer, 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 credit. 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 credits. 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. F

MSL 1102L Introduction to Tactical Leadership Laboratory 0 credit. 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 credit. 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 credit. Participate in and learn to lead a physical fitness program. Emphasis on developing an individual fitness program and the role of exercise and fitness in one’s life. Equivalent to PEAC 1110. F, S

MSL 2201 Innovative Team Leadership 3 credits. 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 credit. Practical application of classroom instruction, leadership exercises, adventure training, military skills, and tactical instruction. Military branch and rank orientation are also applied. COREQ: MSL 2201. F

MSL 2202 Foundations of Tactical Leadership 3 credits. 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 credit. 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 credits. 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 Tactical Leadership 4 credits. 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 MSL student. COREQ: MSL 3301L. F

MSL 3301L Adaptive Team Leadership Laboratory 0 credit. Practical application of classroom instruction, leadership exercises, adventure training, military skills, and tactical instruction. Military branch and rank orientation are also applied. COREQ: MSL 3301. F

MSL 3302 Leadership in Changing Environments 4 credits. Intense situational leadership challenges to build cadre awareness and skills in leading tactical operations up to platoon level. Review aspects of combat, stability, and support operations; conduct military briefings; develop operations 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 credit. Practical application of classroom instruction, leadership exercises, adventure training, military skills, and tactical instruction. Military branch and rank orientation are also applied. COREQ: MSL 3302. S

MSL 3310 ROTC Physical Fitness 1 credit. Participate in, 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 U.S. Military History 3 credits. 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 credits. 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 credits. 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. COREQ: MSL 4401L. F

MSL 4401 Developing Adaptive Leaders 4 credits. 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 credit. Practical application of classroom instruction, leadership exercises, adventure training, military skills, and tactical instruction. Military branch and rank orientation are also applied. COREQ: MSL 4401. F

MSL 4402 Leadership in a Complex World 4 credits. 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 credit. Practical application of classroom instruction, leadership exercises, adventure training, military skills, and tactical instruction. Military branch and rank orientation are also applied. COREQ: MSL 4402. S

MSL 4492 Military Science Internship 6 credits. Apply skills learned in MSL program. PREREQ: Permission of chair. COREQ: Simultaneous membership in ROTC and Army Reserves/National Guard. S
School of Performing Arts

Director and Professor: Thom Hasenpflug, D.M.A.

The School of Performing Arts 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 Music (see also http://www.isu.edu/music/) 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 multiple concert and athletic bands, choirs, symphony orchestra, and smaller chamber groups focusing on jazz, percussion, piano, winds, and others, 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.

The Department of Theatre and Dance administers a Bachelor of Arts degree in Theatre, a Bachelor of Arts degree in Dance, and a variety of minors in Theatre and Dance.

Idaho State University's Theatre Department (see also http://www.isu.edu/departments/theadanc/) 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 or an avocation.

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; technical design; 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/departments/theadanc/DanceISU/DanceISUindex.shtml.

Department of Music

Chair and Associate Professor: Hasenpflug

Professors: Anderson, Bond, Brooks, Earles, Lane, Livingston Friedley

Assistant Professors: Helman, Kloss, K. York

Assistant Lecturer: Sorensen

Adjunct Faculty: G. Adams, M. Adams, Banyas, Drake, Friedley, Hughes, LoPiccolo, O’Brien, M. York

Emeriti: George, Stanek

The Department of Music 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, Symphonic 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.

Accreditation

The Idaho State University Department of Music is an accredited institutional member of the National Association of Schools of Music. Its music education program is also accredited by regional and state accrediting agencies.

Goals and Objectives

The Department of Music at Idaho State University has the following goals:

1. To offer instruction of the highest possible quality to music students;
2. To provide an atmosphere of professional experiences in music, including concerts, master classes, and guest artists;
3. To prepare professional musicians for careers in teaching and/or performance;
4. To offer courses and musical experiences as an element of cultural enrichment for students who do not major in music;
5. To provide opportunities for continued participation by all university students in various performing ensembles and other musical activities; and
6. To exhibit a strong posture in community service through co-sponsorship and promotion of music cultural events.

The student-related outcome objectives relating to these goals are as follows:

1. Students will gain professional level performing experience in a variety of settings including large ensemble, small ensemble, and solo performance. These performance experiences will culminate in the presentation of a solo recital in the senior year.

2. Students will gain a broad understanding of the history of music, focusing primarily upon Western musical culture, but also including an overview of world musics. Students will gain an understanding of how music functions within society and culture.

3. Students will gain a broad understanding of music theory, including part writing, analysis, and composition.

4. Students will develop ear training skills, including the abilities to hear and notate pitch, intervals, chords, and rhythms. Students will be able to hear and identify procedures and large scale structures that are used in music.

5. Students, especially those in the Bachelor of Music Education degree, will gain knowledge and experience in the art of teaching music.

6. Students will gain and be able to display basic competencies on piano, including performance, sight reading, transposition, harmonization, and proper piano technique.

Admission

All prospective music majors/minors and transfer students must contact the department office prior to their first semester’s registration to be assigned a departmental advisor and take diagnostic placement tests and performance auditions. Acceptance as a music major/minor is dependent upon auditions and these examinations. Examinations should be taken before or during the week preceding classwork.
Performance Auditions
These auditions will include technique demonstration and repertoire performance.

Theory Placement Exam
This exam will determine the specific semester of music theory to which a student will be assigned.

Piano Placement Exams
These tests serve to determine the specific level of a continuation course. Furthermore, at least a "C-" grade in each music course is required for graduation. 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. A student majoring in Music Performance may choose 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 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 Non-Music Requirements
ENGL 1102 Critical Reading and Writing 3 cr
(contains General Education Objective 1)
COMM 1101 Principles of Speech 3 cr
(contains General Education Objective 2)
2 semesters of introductory or intermediate French or German 8 cr
(4 credits at introductory level partially satisfies General Education Objective 4; 4 credits at intermediate level satisfies Objective 9)
Social sciences 12 cr
Natural and physical sciences, including laboratories 8 cr
Fine arts or humanities (not including foreign languages or music) 3 cr
Electives (other than Music) 6 cr
TOTAL: 43 cr

Basic Music Requirements (common to all options)
MUSC 1103 Theory of Music I 3 cr
MUSC 1104 Theory of Music II 3 cr
MUSC 1107 Recital Attendance (seven semesters) 0 cr
MUSC 1108 The World of Music (partially satisfies Objective 4) 4 cr
MUSC 1113 Aural Skills I 1 cr
MUSC 1114 Aural Skills II 1 cr
MUSC 2203 Theory of Music III 3 cr
MUSC 2204 Theory of Music IV 3 cr
MUSC 2213 Aural Skills III 1 cr
MUSC 2214 Aural Skills IV 1 cr
MUSC 3304 Theory of Music I 3 cr
MUSC 3305 Music History I 3 cr
MUSC 3306 Music History II 3 cr
MUSC 3311 Form and Analysis 2 cr
MUSC 4495 Senior Recital 2 cr
Piano Proficiency* 4 cr
Upper Division Music Theory/History Elective 2 or 3 cr
Other Music Electives** 2 cr
* Piano proficiency is required for all degree candidates. Applied music secondary credits (MUSC 1118-1119, MUSC 2218-2219, or MUSC 1210) may be used toward passing the piano proficiency. The student must register for piano each semester until able to pass the proficiency exam.
**Music electives must be chosen from Music courses, not from Applied Music or Music Ensembles (Performing Organizations).

Instrumental Option
MUSC 3320 Instrumental Conducting 2 cr
MUSC 4411 Instrument Literature 2 cr
MUSC 4412 Instrument Pedagogy 2 cr
Applied Music (major instrument) 24 cr
Large Ensembles (band, orchestra, choir) 8 cr
Chamber Music (instrumental ensemble) 4 cr

Piano Option
MUSC 3319 Choral Conducting 2 cr
OR
MUSC 3320 Instrumental Conducting 2 cr
MUSC 3395 Junior Recital 1 cr
MUSC 4413 Piano Literature 2 cr
MUSC 4414 Piano Pedagogy 2 cr
Applied Music (piano) 24 cr
Large Ensembles (band, orchestra, choir) 7 cr
Chamber Music (keyboard collaboration) 4 cr

Voice Option
MUSC 2225 Voice Diction 2 cr
MUSC 3319 Choral Conducting 2 cr
MUSC 3325 Advanced Voice Diction 2 cr
MUSC 4419 Voice Literature 3 cr

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 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 (a minimum of 36 credits--see the Academic Information section of this Catalog).

Basic Music Requirements
MUSC 1103 Theory of Music I 3 cr
MUSC 1104 Theory of Music II 3 cr
MUSC 1107 Recital attendance (seven semesters) 0 cr
MUSC 1113 Aural Skills I 1 cr
MUSC 1114 Aural Skills II 1 cr
MUSC 2203 Theory of Music III 3 cr
MUSC 2204 Theory of Music IV 3 cr
MUSC 2213 Aural Skills III 1 cr
MUSC 2214 Aural Skills IV 1 cr
MUSC 3304 Theory of Music I 3 cr
MUSC 3305 Music History I 3 cr
MUSC 3306 Music History II 3 cr
MUSC 3311 Form and Analysis 2 cr
MUSC 4495 Senior Recital 2 cr
Piano Proficiency* 4 cr
Upper Division Music Theory/History Elective 2 or 3 cr
Other Music Electives** 2 cr
* Piano proficiency is required for all degree candidates. Applied music secondary credits (MUSC 1118-1119, MUSC 2218-2219, or MUSC 1210) may be used toward passing the piano proficiency. The student must register for piano each semester until able to pass the proficiency exam.
**Music electives must be chosen from Music courses, not from Applied Music or Music Ensembles (Performing Organizations).

In ADDITION:
Solo or joint senior recital
Piano proficiency*
Chamber Ensembles
* Piano proficiency is required for all degree candidates. Applied music secondary credits (MUSC 1118-
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 or Bachelor of Science must complete 8 of the 9 General Education Objectives (a minimum of 36 credits—see 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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<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 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>
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<tr>
<td>MUSC 2204</td>
<td>Theory of Music IV</td>
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<td>MUSC 2213</td>
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<td>MUSC 3304</td>
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<tr>
<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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<tr>
<td>MUSC 4495</td>
<td>Senior recital</td>
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</tr>
<tr>
<td><strong>Applied Music</strong></td>
<td></td>
<td><strong>8</strong></td>
</tr>
</tbody>
</table>

**Piano proficiency is required for all degree candidates. Applied music secondary credits (MUSC 1118-1119, MUSC 2218-2219, or MUSC 1120) may be used toward passing the piano proficiency. The student must register for piano each semester until able to pass the proficiency exam.**

**Music electives must be chosen from Music courses, not from Applied Music or Music Ensembles (Performing Organizations).**

Minor in Music

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>MUSC 1103</td>
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<td>MUSC 1104</td>
<td>Theory of Music II</td>
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<tr>
<td>MUSC 1107</td>
<td>Recital attendance (4 semesters)</td>
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<tr>
<td>MUSC 1108</td>
<td>The World of Music (partially satisfies Objective 4)</td>
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<tr>
<td>MUSC 1113</td>
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<tr>
<td>MUSC 1114</td>
<td>Aural Skills II</td>
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Applied Music

(2 credits at the 1000 level, 2 credits at the 2000 level)

Large Performing Ensembles

<table>
<thead>
<tr>
<th>Type</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Band, Choir, Orchestra</td>
<td>4</td>
</tr>
<tr>
<td>Music Elective</td>
<td>2</td>
</tr>
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</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 with a chamber ensemble performance required as a portion of the student’s senior recital program.**

MUSP 1163 Chamber Orchestra 1 credit.

Study and performance of traditional and modern works for chamber orchestra. F, S

MUSP 1166 Chamber Choir 1 credit.

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 credit.

Ensemble course devoted to the study of an opera. May be repeated. PREREQ: Junior level standing in applied music. F, S

MUSP 1168 Instrumental Ensemble 1 credit.

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 1170 Camerata Singers/Idaho State Chorale 1 credit.

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 credit.

Study, rehearsal and performance of traditional and non-traditional choral music for treble voices. May be repeated. F, S

MUSP 1173 Concert Choir 1 credit.

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 credit.

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 credit.

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 credit.

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 credit.

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 credit. 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 credit. Ensemble course devoted to the study and presentation of an opera. May be repeated. PREREQ: Junior level standing in applied music. S

MUSP 4468 Instrumental Ensemble 1 credit.

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 credit.

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 credit.

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 credit.

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
MUSC 4477 Symphonic Band 1 credit. 
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

MUSC 4478 Jazz Band 1 credit. 
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

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.

<table>
<thead>
<tr>
<th>Level</th>
<th>Piano</th>
<th>Voice</th>
<th>Organ</th>
<th>Strings</th>
<th>Brass</th>
<th>Woodwinds</th>
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<td>Junior</td>
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<tr>
<td>Senior</td>
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<td>4431</td>
<td>4441</td>
<td>4461</td>
<td>4465</td>
<td>4475</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 1120 Piano Secondary 1 cr
MUSA 1130 Voice Secondary 1 cr
MUSA 1140 Organ Secondary 1 cr
MUSA 1160 Strings Secondary 1 cr
MUSA 1164 Brass Secondary 1 cr
MUSA 1174 Woodwinds Secondary 1 cr
MUSA 1184 Percussion Secondary 1 cr

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 Courses

MUSC 1100 Introduction to Music 3 credits. 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 credits. 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 1 3 credits. Melodic and harmonic part writing and basic analysis. Majors who have not passed piano proficiency should register concurrently with class piano MUSC 1118-1119 or MUSC 2218-2219. PREREQ: MUSC 1102 or equivalent. F

MUSC 1104 Theory of Music II 3 credits. Continuation of MUSC 1103. PREREQ: MUSC 1103 AND MUSC 1113. S

MUSC 1106 American Music 3 credits. 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 credits. 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 credits. 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 History 3 credits. 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. F

MUSC 1113 Aural Skills I 1 credit. 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 credit. 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 credit. Primarily for music and elementary education majors completing piano proficiency requirements. Normally taken concurrently with MUSC 1103. F

MUSC 1119 Class Piano II 1 credit. Primarily for music and elementary education majors completing piano proficiency requirements. Normally taken concurrently with MUSC 1104. S

MUSC 1125 Beginning Guitar Class 1 credit. Basic guitar technique and repertoire. Open to any student. Students must provide their own guitars. F, S

MUSC 1126 Intermediate Guitar Class 1 credit. Intermediate guitar technique and repertoire. Open to any student. Students must provide their own guitars. S

MUSC 1127 Class Voice I 1 credit. Basic singing technique and vocal repertoire. Open to any student, including elementary education majors completing requirements. F, S

MUSC 2203 Theory of Music III 3 credits. 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 credits. Continuation of MUSC 2203. PREREQ: MUSC 2203 and MUSC 2213. S

MUSC 2213 Aural Skills III 1 credit. 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 credit. 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 credit. Primarily for music and elementary education majors completing piano proficiency requirements. Normally taken concurrently with MUSC 2203. F

MUSC 2219 Class Piano IV 1 credit. Primarily for music and elementary education majors completing piano proficiency requirements. Normally taken concurrently with MUSC 2204. S

MUSC 2225 Voice Diction 2 credits. Principles of voice diction with emphasis on English and Italian. AF

MUSC 2233 Music Methods for Elementary Teachers 2 credits. 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 credits. Introduction to vocal technique and basic musicianship through the study of folk song and musical theater repertoire. Selecting and preparing audition repertoire. Vocal health issues. AF

MUSC 2252 Introduction to Music Education 1 credit. An introduction to music education philosophy, psychology, and history, and a survey of music education approaches. Requires nine hours of classroom observations. S
MUSC 2255 Woodwind Methods 2 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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. S

MUSC 3314 Jazz Improvisation 1 credit. 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 credits. 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 credits. 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 credits. 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 credits. Principles of voice diction with emphasis on French, German and Latin. PREREQ: MUSC 2255. D

MUSC 3333 Elementary Music Methods 3 credits. 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 gui. Includes practicum. PREREQ: MUSC 2204, MUSC 2214, and MUSC 2252. D

MUSC 3334 Choral Methods 2 credits. Methods and materials of choral music education in secondary schools including: ensemble instruction, classroom management and organization. PREREQ: MUSC 2204, MUSC 2214, and MUSC 2252. D

MUSC 3335 Instrumental Music Methods 2 credits. Methods and materials of instrumental music education in secondary schools including: ensemble instruction, classroom management and organization. PREREQ: MUSC 2252, MUSC 2255, MUSC 2256, MUSC 2258, and MUSC 2259. D

MUSC 3336 Field Experience in Music Education 2 credits. Student completes 30 hours of practicum within secondary school music settings, and develops teacher work samples. D

MUSC 3395 Junior Recital 1 credit. A solo and/or collaborative public recital. PREREQ: Junior level Standing in Applied Music. Graded S/U, F, S

MUSC 3397 Workshop 1-2 credits. 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 4401 Orchestration 2 credits. 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 credits. Masterworks of operatic literature. PREREQ: MUSC 3304, MUSC 3305 and MUSC 3306. D

MUSC 4409 Symphony Literature 3 credits. Masterworks of symphonic literature. PREREQ: MUSC 3304, MUSC 3305 and MUSC 3306. D

MUSC 4410 Chamber Music Literature 3 credits. Masterworks of chamber music literature. PREREQ: MUSC 3304, MUSC 3305 and MUSC 3306. D

MUSC 4411 Instrument Literature 2 credits. A study of instrumental 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. Instructional materials and literature for voice. PREREQ: Junior level standing in applied music or permission of instructor. D

MUSC 4420 Voice Pedagogy 3 credits. 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 credits. Intensive study of music from Monteverdi through J.S. Bach. PREREQ: MUSC 3304. D

MUSC 4425 Music in the Classical Era 3 credits. Intensive study of music in the Classical era, principally 1730 through Beethoven. PREREQ: MUSC 3305. D


MUSC 4427 Music in the Modern Era 3 credits. Intensive study of music in the Modern era, principally since 1900. PREREQ: MUSC 3306. D

MUSC 4429 Advanced Music History Survey 3 credits. 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 credits. Arranging music for different instrumental combinations and various textures. PREREQ: MUSC 2204 D

MUSC 4433 Composition 2 credits. 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 credits. 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 credits. 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 credits. Study of music theory methods, including harmonic and formal analysis. PREREQ: MUSC 3311. D

MUSC 4445 Advanced Instrumental Conducting 2 credits. 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 credits. 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 credits. 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 credits. Graded S/U. F, S

MUSC 4497 Workshop 1-2 credits. 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

Adjunct Faculty: Brindusa, Espinosa, Evans, Head, Jorgensen, Phelps, Romine, Tucker, Zmolek
Emerita: Lloyd

The Department of Theatre and Dance administers a Bachelor of Arts or Bachelor of Science degree in Theatre, a Bachelor of Arts degree in Dance, and a variety of minors in Theatre and Dance.

Theatre Program

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 programs (B.A., B.S., and B.F.A.) are to help all students obtain a level of achievement appropriate to entry-level professionals in their specialty areas:

1. Knowledge of theatre as a social and aesthetic experience.
2. Knowledge of the history of the theatre and related dramatic literature.
3. Competence in basic acting and directing skills.
5. Competence in study skills.
6. Competence in research skills.
7. Competence in thinking clearly, logically, and independently.
8. Ability to effectively communicate and work within a collaborative art.

The theatre curriculum is designed to provide not only a humanistic awareness of our history and civilization through a study of dramatic literature and theatre history, but also to allow the student to pursue courses of study 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 program can lead to careers in such varying areas as theatre, television, film, education, journalism, public relations, personnel work, sales, insurance, government, and law.

Special Graduation Requirements
The Theatre and Dance Department requires a departmental GPA of 2.5 as a standard for graduation. An additional requirement is that a Theatre major or minor or Dance 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 Academic Information section of this Catalog).

Auditions
Auditions for Theatre ISU productions are open to all University students. Theatre majors are expected 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.

Bachelor of Arts or Bachelor of Science in Theatre

Required Theatre Courses:

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<td>THEA 1111</td>
<td>Stagecraft</td>
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<tr>
<td>THEA 1131</td>
<td>Voice and Diction</td>
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<tr>
<td>THEA 1191</td>
<td>Theatre Production</td>
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<tr>
<td>THEA 2211</td>
<td>Drafting</td>
<td>3</td>
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<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>
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<tr>
<td>THEA 2251</td>
<td>Beginning Acting</td>
<td>3</td>
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<tr>
<td>THEA 2252</td>
<td>Intermediate Acting</td>
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<td>THEA 3391</td>
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<td>Theatre Background</td>
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<td>THEA 4403</td>
<td>Stage Costume Design</td>
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<td>THEA 4455</td>
<td>Beginning Stage Direction</td>
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Choose TWO of the following:

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<td>THEA 4419</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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</tr>
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Plus:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
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<td>Upper division THEA electives</td>
<td>6</td>
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Related Areas

Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>DANC 1110</td>
<td>Elements of Movement</td>
<td>2</td>
</tr>
<tr>
<td>ENGL 4476</td>
<td>Shakespeare</td>
<td>3</td>
</tr>
<tr>
<td>PEAC 1139A</td>
<td>Beginning Fencing</td>
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</tr>
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</table>
Minors—Theatre

General Minor in Theatre (Unspecified)
THEA 1101 Appreciation of Drama 3 cr
THEA 2219 Stagecraft 3 cr
THEA 2220 Stage Costume Design 3 cr
THEA 4401 Theatre Management 2 cr
THEA 4411 Introduction to Scene Design 3 cr
THEA 4412 Stage Lighting Design 3 cr
THEA 4426 Scene Design 3 cr
THEA 4491 Theatre Production* 3 cr
TOTAL: 26 cr

*Theatre Production courses may be taken for 8 cumulative credits.

Minor in Technical Theatre
THEA 1101 Appreciation of Drama 3 cr
THEA 1111 Stagecraft 3 cr
THEA 2211 Stage Costume Design 3 cr
THEA 3304 Theatre Management 2 cr
THEA 3311 Introduction to Scene Design 3 cr
THEA 3312 Stage Lighting Design 3 cr
THEA 4426 Scene Design 3 cr
THEA 1191, 3391*Theatre Production 3 cr
TOTAL: 26 cr

*Theatre Production courses may be taken for 8 cumulative credits.

Minor in Technical Theatre and Costume
THEA 1101 Appreciation of Drama 3 cr
THEA 2211 Drafting 3 cr
THEA 2211 Stage Lighting Design 3 cr
THEA 2221 Stage Costume Construction 3 cr
THEA 3304 Theatre Management 2 cr
THEA 3311 Introduction to Scene Design 3 cr
THEA 3312 Stage Lighting Design 3 cr
THEA 4426 Scene Design 3 cr
THEA 4491 Theatre Production* 3 cr
TOTAL: 28 cr

*Theatre Production courses may be taken for 8 cumulative credits.

Minor in Theatre History and Dramatic Literature
ENGL 4476 Shakespeare 3 cr
ENGL 2426 Art of the Film I 3 cr
THEA 1101 Appreciation of Drama 3 cr
THEA 4400 Theatre Background I 3 cr
THEA 4419 Modern European Theatre 3 cr
THEA 4420 American Theatre History 3 cr
THEA 4470 Contemporary Theatre 3 cr
TOTAL: 24 cr

Minor in Costume
THEA 1101 Appreciation of Drama 3 cr
THEA 2219 Stagecraft 3 cr
THEA 2221 Stage Costume Design 3 cr
THEA 3312 Stage Lighting Design 3 cr
THEA 4402 Stage Costume History 3 cr
THEA 4403 Stage Costume Design 3 cr
THEA 4421 Basic Pattern Drafting for Stage Costuming 3 cr
THEA 1191, 3391*Theatre Production 3 cr
TOTAL: 26 cr

*Theatre Production courses may be taken for 8 cumulative credits.

Theatre Courses
THEA 1101 Appreciation of Drama 3 cr
An audience-oriented course in the creative processes and aesthetic principles that 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 1111 Stagecraft 3 cr.
Shop and crew-based course in building scenery, hanging lights, painting and properties. Lectures are based on construction theories. Students will form production staff and crews for university productions. Required for majors. F
THEA 1118 Oral Interpretation 3 cr.
Analysis and interpretation of literature through performance. Prose, poetry and dramatic literature will be investigated. S
THEA 1131 Voice and Diction 2 cr.
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 credit.
Supervised work in theatre production. Enrollment must be approved by a theatre faculty member and does not presume casting in a given production. THEA 1191 and THEA 3391 may be repeated for up to 8 credits. F, S, Su
THEA 2211 Drafting 3 credits.
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 credits.
Laboratory sessions on the technique of makeup. Includes participation on crews of university productions. F
THEA 2218 Stage Dialects 2 credits.
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 credits.
Methods of assembling stage costumes. Use of various fabrics and materials will be emphasized. S
THEA 2251 Beginning Acting 3 credits.
Exercises in awareness, concentration, relaxation, imagination, and character interrelationships. Includes improvisation and some scene work. F, S, Su
THEA 2252 Intermediate Acting 3 credits.
Creating a character. Emphasis on movement, gesture, scene analysis, and performance. PREREQ: THEA 2251, or permission of instructor. S
THEA 3300 Theatre Movement Workshop 2 credits.
Exploration of techniques of movement improvisation and the text/movement synthesis of physical theatre. Equivalent to DANC 3311. PREREQ: DANC 1110. D
THEA 3301 Theatre Voice Workshop 1-2 credits.
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 credits.
Beginning costume materials, including millinery, jewelry, and mask making. D
THEA 3303 Advanced Costume Materials Workshop 1-2 credits.
Experimentation with several types of fabric dye and fabric modifications, such as stenciling, screen painting, batik methods, Devoe, and piping. D
THEA 3304 Theatre Management 2 credits.
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 credits. 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 credits. 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 credits. Required for teaching majors in speech and theatre. D
THEA 3390 Practicum Theatre Arts I 1-2 credits. 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 credit. Supervised work in theatre production. Enrollment must be approved by the theatre faculty member and does not presume casting in a given production. THEA 1191 and THEA 3391 may be repeated for up to 8 credits. F, S, Su
THEA 3393 Independent Research Projects 1-3 credits. 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 4400 Theatre Background I 3 credits. Theatre and drama, from their origins through the Jacobean period. AF
THEA 4401 Theatre Background II 3 credits. Study of the theatre and drama from the Spanish Golden Age through the “well-made play.” AS
THEA 4402 Stage Costume History 3 credits. 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 credits. Costume design for the theatre incorporating the influence of period, concept, and mood. Course work includes text analysis, research, drafting, painting, and collage. AS
THEA 4404 Problems in Acting 3 credits. 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 instructor. PREREQ: THEA 2251 and THEA 2252. AS
THEA 4405 Advanced Costume Construction 3 credits. 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 credits. 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 2209, and THEA 3311. D
THEA 4412 Scenic Painting 3 credits. 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 credits. 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 credits. Continental and British theatre and drama from 1850 to mid-twentieth century. OF
THEA 4420 American Theatre History 3 credits. American theatre and drama from the beginnings to mid-twentieth century. D
THEA 4421 Basic Pattern Drafting for Stage Costume 3 credits. 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 Costume 3 credits. 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 credits. 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 credits. 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 2209, and THEA 3311. D
THEA 4445 Beginning Stage Direction 3 credits. Consideration of aesthetics of dramatic production and the relationship of basic techniques of stage direction. Includes the direction of scenes and one-act plays. PREREQ: THEA 1111, THEA 2251, THEA 2252, or permission of instructor. F
THEA 4456 Advanced Stage Direction 3 credits. Advanced theories in techniques of stage direction including consideration of period styles. The student will direct a series of advanced projects including scenes and a full-length play. PREREQ: THEA 4455 or permission of instructor. AS
THEA 4470 Contemporary Theatre 3 credits. World drama and theatre during the two most recent decades. AS
THEA 4490 Practicum Theatre Arts II 1-3 credits. Recital projects for advanced students in various areas of theatre arts. May be repeated for a maximum of 4 credits with different titles. AS
THEA 4491 Independent Research Projects II 1-3 credits. Under the supervision of the Theatre faculty, the advanced student will undertake special research projects in theatre, focusing on themes, methods and/or problems encountered later in one’s stage life. May be repeated once with different content for a maximum total of 6 credits. F, S

Dance Program
Bachelor of Arts in Dance: Choreography and Performance
Students completing the Bachelor of Music must complete 8 of the 9 General Education Objectives (a minimum of 36 credits--see the Academic Information section of this Catalog).

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 4 cr., must include DANC 2200
Jazz Dance 4 cr., must include DANC 2220
Modern Dance 6 cr., must include DANC 3330.
Electives 3 cr., must be chosen from DANC 2290, DANC 3300, DANC 3320, DANC 3390, or any DAAC course.

Other Required Course
DANC 1104 World Dance: Local Identity 3 cr
DANC 1110 Elements of Movement 2 cr
DANC 2205 Dance in the Modern Era 3 cr
DANC 2210 Dance Composition 3 cr
DANC 2270 Dance Repertory 1 cr
DANC 3301 Performance and Society 3 cr
DANC 3311 Theatre Workshop 2 cr
DANC 3380 Dance Management and Production 2 cr
DANC 4401 Aesthetic Issues in Dance 3 cr
DANC 4410 Dance Composition II 3 cr
DANC 3360 Methods of Dance for Children 3 cr OR
DANC 4460 Dance Teaching Methods 3 cr
PE 2243 Anatomical Foundations of Athletic Injuries 3 cr
PE 3370 Care and Prevention of Athletic Injuries 3 cr
THEA 1111 Beginning Stagecraft 3 cr
Choose ONE of the following courses:

THEA 2214 Makeup 2 cr
THEA 2221 Stage Costume Construction 2 cr
THEA 3304 Theatre Management 2 cr
THEA 3312 Stage Lighting Design 3 cr

Choose ONE of the following courses:

MUSC 1100 Introduction to Music 3 cr
MUSC 1102 Elements of Music 2 cr
MUSC 1106 American Music 3 cr

Minor in Dance

The Dance minor may be taken by any Idaho State University student. Courses are especially designed to meet the needs of students involved in the performing arts, liberal arts, and education, as well as private dance studio teachers and those interested in pursuing professional careers in dance. Students pursuing a minor in Dance should be enrolled in a dance technique class every semester. See also the list of courses recommended for students minoring in Dance.

Special Graduation Requirements

A Dance minor must earn no less than a "C-" grade in each required dance course 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.

Performance and Choreography Emphasis

Required Courses

DANC 1104 World Dance/Local Identity 3 cr
DANC 1110 Elements of Movement 2 cr
DANC 2205 Dance in the Modern Era 3 cr
DANC 2210 Dance Composition I 3 cr
THEA 3300 Theatre Movement Workshop 2 cr
DANC 3301 Performance and Society 3 cr
DANC 1130, 2230, or 3330 Modern Dance I, II, or III 4 cr
DANC 1100, 2200, or 3300 Ballet I, II, or III 2 cr
THEA 1191 Theatre Production 1 cr

Choose ONE of the following courses (3 cr):

DANC 4401 Aesthetic Issues in Dance 3 cr
DANC 4410 Dance Composition II 3 cr
MUSC 1100 Introduction to Music 3 cr
PE 2243 Anatomical Foundations of Human Activity 3 cr
TOTAL: 26 cr
TOTAL: 26 cr

Recommended Courses for the Dance Minor Program include:

ART 1103 Creative Process 3 cr
Biol 3301, 3301L Anatomy and Physiology, and Lab 4 cr
Biol 3302, 3302L Anatomy and Physiology, and Lab 4 cr
DAAC 1100 Dance Basics 1 cr
DAAC 1110 Ballroom Dance I 1 cr
DAAC 1111 Ballroom Dance II 1 cr
DAAC 1125 Latin Dance 1 cr
DAAC 1135 Middle Eastern Dance 1 cr

Dance Courses

(DANC Prefix)

DANC 1100 Ballet I 1 cr. 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. May be repeated for up to 6 credits.

DANC 1104 World Dance: Local Identity 3 cr. Compare traditional and contemporary cultures of Native America, Africa, Asia, the Americas, Oceania, and Europe; examine movement as the primary extension system, and the body as a tool of communication central to the social, political and religious life of community. Includes frameworks for observation; cross-cultural examinations of work, war, contest, social display and worship; diaspora, and global imperialism. F, S

DANC 1105 Survey of Dance 3 cr. 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 1110 Elements of Movement 2 cr. Introduction to the Elements of Movement (body, space, time, energy) as described in the theories of H’Doubler Movement Analysis and Laban Effort Shape and Space Harmony. Exploration of how the Elements of Movement may be manipulated to create movement phrases and develop character and emotional performance. F

DANC 1120 Jazz Dance I 2 cr. Development of the jazz dance technique with focus on an emphasis of movement combinations, the ability to perceive movement quickly and accurately, and performance quality and intent. Core training: isolations; strength, flexibility, and speed; floor work; turns; dynamic, fluid and percussive movement. Assumes prior dance training. DAAC 1000 Dance Basics highly recommended. May be repeated for up to 6 credits. F, S

DANC 1130 Modern Dance I 2 cr. 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 1000 Dance Basics highly recommended. May be repeated for up to 6 credits. F, S

DANC 2200 Ballet II 2 cr. 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 1000. F, S

DANC 2205 Dance in the Modern Era 3 cr. 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 cr. 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. PREREQ DANC 1110. S

DANC 2220 Jazz Dance II 2 cr. Continued development of the jazz dance technique with focus on an emphasis of movement combinations, the ability to perceive movement quickly and accurately, and performance quality and intent. Class will consist of increasing difficulty in core training; isolations; strength, flexibility, and speed; floor work; turns; dynamic, fluid and
DANC 2230 Modern Dance II 2 credits. Continued development of 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 to 6 credits. PREREQ: DANC 1120, F, S

DANC 2270 Dance Repertory 1-2 credits. Rehearse and perform faculty choreographed works. Enrollment must be approved by a theater/dance faculty member and does not presume casting in a given production. May be repeated for up to 8 credits. COREQ: DANC 1100, DANC 1120, DANC 1130, DANC 2200, DANC 2220, DANC 2225, DANC 3300, DANC 3320, or DANC 3330, F, S

DANC 2290 Contact Improvisation, 2 credits. Beginning techniques of contact improvisation including focus on momentum, flow, gravity, and partnering skills. May be repeated for up to 4 credits. AS

DANC 3300 Ballet III 2 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 Production 1-2 credits. Designed to assist students in developing skills necessary to create and produce formal dance productions and lecture/demonstrations. Opportunities to choreograph, perform, and design costumes, lights, sets and sound. May be repeated for up to 8 credits. F, S

DANC 3390 Workshop: Cultural Forms 1-2 credits. 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 4401 Aesthetic Issues in Dance 3 credits. An examination into the aesthetics of human movement as they relate to the human body biologically, socially, politically, historically and culturally. F

DANC 4410 Dance Composition II 3 credits. Explore various techniques and processes used to create movement studies and choreographic work at an intermediate/advanced level. Students continue to develop 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 credits. 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 credits. Individual work under the direction of a dance faculty member. Field and/or library study on specialized dance techniques of interest to students who want further studies in dance. May be repeated for up to 6 credits. PREREQ: Permission of instructor. F, S, Su

DANCE Activity Courses (DAAC Prefix)

DAAC 1100 Dance Basics 1 credit. 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 credit. 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 credit. 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 credit. Advanced ballroom dance students learn to choreograph and perform a “couple’s” dance routine; select music and costumes, and stage individual performances for formal presentation. F

DAAC 1125 Latin Dance I credit. 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, Rumba, and Samba. Informal performance opportunities available. F, S

DAAC 1135 Middle Eastern Dance I credit. 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 credit. 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 I credit. 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 I credit. 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 credit. 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. PRE REQ: DAAC 1150 or equivalent. D

DAAC 1160 Recreational Dance I I credit. 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 I credit. 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 I credit. A Pilates-based fitness and dance conditioning floor-work out balances strength
with flexibility. Designed by Joseph Pilates in the 1920s, Pilates tones the body’s major and minor muscles, increases circulation, and enhances movement performance. F, S
DAAC 1176 Pilates/Dance Conditioning—Equipment 1 credit. 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 credit. 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 credit. 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 credit. 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 credit. Swing techniques taught at a beginning skill level along with partnering, appropriate dress, proper etiquette. Informal performance opportunities available. F, S

Department of Political Science
Chair and Professor: Anderson
Professors: Gabardi, McBeth
Associate Professor: Lybecker
Assistant Professors: Carlisle, Forbis, Narasimhan, Newman
Adjunct Faculty: Eckert, Phippen
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 1 (English Composition), 2 (Principles of Speech), and 3 (Mathematics).
3. Completion of both POLS 1101 Introduction to American 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 Academic Information section of this Catalog), political science majors are required to take the following courses from the “core curriculum”:
POLS 1101 Introduction to American Government (partially satisfies General Education Objective 6) 3 cr
POLS 2202 Introduction to Politics 3 cr
POLS 2221 Introduction to International Relations 3 cr
POLS 3313 Introduction to Political Philosophy 3 cr
POLS 3331 Comparative Politics: Framework for Analysis 3 cr
POLS 4401 Political Parties and Interest Groups 3 cr
POLS 4427 Voting and Public Opinion 3 cr
POLS 4403 The Presidency 3 cr
POLS 4404 Legislative Process 3 cr
POLS 4442 Constitutional Law 3 cr
POLS 4443 Constitutional Law 3 cr
POLS 4460 Senior Seminar 3 cr

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, 2202, six credits of core curriculum courses (excluding POLS 4460) and six elective political science credits (excluding POLS 4459).

Political Science Courses

Topics into which courses are grouped:
American Indian Studies
American Politics
Comparative Government
General Courses
International Politics
Introductory Courses
Political Analysis
Political Theory
Public Administration
Public Law

Courses in numerical order, showing title and the topic group where course description appears:
POLS 1101 Introduction to American Government: Introductory Courses
POLS 2202 Introduction to Politics: Critical Thinking and Analysis: Introductory Courses
POLS 2221 Introduction to International Relations: International Politics
POLS 2248 Politics and the Administration of Justice: Public Law
POLS 2249 Introduction to Criminal Law: Public Law
POLS 2250 Idaho Politics: American Politics
POLS 3308 State and Local Government: American Politics
POLS 3313 Introduction to Political Philosophy: Political Theory
POLS 3326 Recent American Foreign Policy: International Politics
POLS 3331 Comparative Politics: Framework for Analysis - Comparative Government
POLS 3350 Special Topics in Political Science: General Courses
POLS 3397 Workshop: General Courses
POLS 4401 Political Parties and Interest Groups: American Politics
POLS 4403 The Presidency: American Politics
POLS 4404 The Legislative Process: American Politics
POLS 4405 The Administrative Process: American Politics
POLS 4406 Intergovernmental Relations: American Politics
POLS 4408 Metropolitan and Urban Studies: American Politics
POLS 4409 Community and Regional Planning: American Politics
POLS 4411 American Political Theory: Political Theory
POLS 4412 Modern Political Analysis: Political Analysis
POLS 4418 Topics in Political Theory: Political Theory
POLS 4419 Political Research Methods: Political Analysis
POLS 4419L Political Research Methods: Laboratory: Political Analysis
POLS 4420 Contemporary Political Theory: Political Theory
POLS 4421 Democratic Political Thoughts: Political Theory
POLS 4425 Topics in International Politics: International Politics
POLS 4427 Voting and Public Opinion: American Politics
POLS 4432 Comparative Politics - Change and Political Order: Comparative Government
POLS 4433 Politics of Developing Nations: Comparative Government
POLS 4434 Terrorism and Political Violence: International Politics
POLS 4435 Topics in National and Regional Studies: Comparative Government
POLS 4436 Elite Deviance and Crime: American Politics
POLS 4441 Administrative Law: Public Administration
POLS 4442 Constitutional Law: Public Law
POLS 4443 Constitutional Law: Public Law
POLS 4445 Jurisprudence: Public Law
POLS 4450 Special Topics in Law: Public Law
POLS 4451 Organizational Theory and Bureaucratic Structure: Public Administration
POLS 4452 Financial Administration and Budgeting: Public Administration
POLS 4453 Public Policy Analysis: American Politics
POLS 4454 Public Personnel Administration: Public Administration
POLS 4455 Environmental Politics and Policy: American Politics
POLS 4456 Labor Organization: Public Administration
POLS 4457 Grant Writing: Public Administration
POLS 4458 Public Administration Ethics: Public Administration
POLS 4459 Government Internship: General Courses
POLS 4460 Senior Seminar: General Courses
POLS 4465 U.S. Political History: American Politics
POLS 4466 Public Lands Policy: American Politics
POLS 4467 State and Local Administration: Public Administration
POLS 4471 Historical Geography of Idaho: General Courses
POLS 4478 Federal Indian Law: American Indian Studies
POLS 4479 Tribal Governments: American Indian Studies
POLS 4491 Seminar: General Courses
POLS 4492 Seminar: General Courses

Introductory Courses


POLS 2202 Introduction to Politics: Critical Thinking and Analysis 3 credits. 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. Satisfies Objective 7 of the General Education Requirements. Required for all students majoring in political science. F, S, Su

American Indian Studies

POLS 4478 Federal Indian Law 3 credits. 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 credits. Complex legal position of Indian tribes as self-governing entities; principles of inherent powers; governmental organization, lawmakers, justice, relation to state and federal government. Equivalent to ANTH 4479. D

American Politics

POLS 2250 Idaho Politics 3 credits. Historical development and political analysis of Idaho politics from the first settlers to the present. D

POLS 3308 State and Local Government 3 credits. Study of the institutions of state and local government in a behavioral context. D

POLS 4401 Political Parties and Interest Groups 3 credits. The nature and development of political parties and pressure groups as exemplified in the United States. S, Su

POLS 4403 The Presidency 3 credits. 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 credits. 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 The Administrative Process 3 credits. Analysis of the principles of public administration with an introduction to theories of organization and administration. D

POLS 4406 Intergovernmental Relations 3 credits. Analysis of patterns of intergovernmental relations including changing patterns of program and fiscal responsibility in the federal system. The emerging role of new federal structures, state and substate regional organizations will be reviewed in the context of “new” federalism and its implications for intergovernmental relationships. D

POLS 4408 Metropolitan and Urban Studies 3 credits. Analysis of metropolitan and smaller urban systems with emphasis on relationships among general groups, political organizations and institutions. Federal, state and interlocal programs will serve as a focus for analyzing particular problems of metropolitan and urban systems in the 20th century. D

POLS 4409 Community and Regional Planning 3 credits. Steps involved in planning will be analyzed in the context of community and regional decision-making processes. Two perspectives will be stressed—that of the decision-maker, the social structure within which
the decision-maker operates and strategies for implementing decision; and that of the citizen or group interest which lies outside the power structure of the community. Each perspective will be used as a framework for analyzing power configurations, techniques of identifying patterns of decision making, and various forms of citizen participation.

POLS 4427 Voting and Public Opinion 3 credits. Analysis of the way citizens and government communicate with each other. Elections, public opinion, and media influence are studied. F

POLS 4436 Elite Deviance and Crime 3 credits. 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 4453 Public Policy Analysis 3 credits. 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 4455 Environmental Politics and Policy 3 credits. 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 4465 U.S. Public History 3 credits. Study of the public 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 credits. 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

Political Analysis

POLS 4412 Modern Political Analysis 3 credits. Methods of political inquiry and theories and doctrines of politics, with emphasis on modern developments. D

POLS 4419 Political Research Methods 3 credits. 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 credit. Application of and practice in research methods. COREQ: POLS 4419. D

Public Administration

POLS 4441 Administrative Law 3 credits. 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 4451 Organizational Theory and Bureaucratic Structure 3 credits. Introduction to the study of complex organizations and organizational behavior in the administration of public policy. Emphasis on public institutions. POLS 4405 recommended. D

POLS 4452 Financial Administration and Budgeting 3 credits. Emphasis on different approaches to financial administration, ranging from incremental and short-term planning to more recent and comprehensive emphases on management by objectives and zero-based budgeting. The development of the Office of Management and Budget and its relationship with the President, Congress and the Federal Bureaucracy will be considered as well as political, organizational and behavioral constraints on budgetary decision-making. D

POLS 4454 Public Personnel Administration 3 credits. Operations and processes of personnel management in public institutions. Major topics include personnel processes, public employee rights and duties, employee motivation and morale, the political environment of public personnel administration, and the impact of professionalism, technology, and participatory democracy on public personnel practices. D

POLS 4456 Labor Organization 3 credits. 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 on governmental employee unions. D

POLS 4457 Grantwriting 3 credits. Steps involved in the grantwriting process from strategic planning, research, and writing to finding appropriate grant sources. D

POLS 4458 Public Administration Ethics 3 credits. 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 4467 State and Local Administration 3 credits. 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

Political Theory

POLS 3313 Introduction to Political Philosophy 3 credits. Examination of selected writings in political philosophy from the classical, Christian and early modern eras. F, S

POLS 4411 American Political Theory 3 credits. Political ideas in the United States from Colonial and Revolutionary times through the controversies of the Civil War to the present. D

POLS 4418 Topics in Political Theory 3 credits. 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 4420 Contemporary Political Theory 3 credits. Recent 20th century political philosophies and theories ranging from democratic, Marxist, and existentialist thought to Critical Theory and postmodernism. D

POLS 4421 Democratic Political Thought 3 credits. Historical and contemporary models of democracy as well as contemporary debates in democratic thought. Democracy is treated as a contested idea. D

International Politics

POLS 2221 Introduction to International Relations 3 credits. Conceptual introduction to international relations, with emphasis on sovereignty, national interest, power, and balance of power. F, S

POLS 3326 Recent American Foreign Policy 3 credits. Study of recent American foreign policy focused on the interrelationship of domestic and foreign polices and the problems of formulating foreign policy in a democratic state. D

POLS 4425 Topics in International Politics 3 credits. This course requires examination, analysis and evaluation of selected topics in international politics. May be repeated for up to 6 credits. D

POLS 4434 Terrorism and Political Violence 3 credits. A survey of forms of domestic and transnational terrorism, other forms of political violence, and problems of counter-terrorism. D

Comparative Government

POLS 3331 Comparative Politics: Framework for Analysis 3 credits. Introduction to various theoretical approaches to comparative analyses of different cultures and nations, and to other courses in this area of emphasis. F, S, Su

POLS 4432 Comparative Politics: Change and Political Order 3 credits. 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 credits. Study of problems in the political analysis of rapidly changing and unstable “developing” nation states with an emphasis on problems of the political, economic, and social development of selected states. D

POLS 4435 Topics in National/Regional Studies 3 credits. Surveys the political, economic, and social issues of a nation or region. May be repeated for up to 6 credits with different content. D

Public Law

POLS 2248 Politics and the Administration of Justice 3 credits. 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 credits. 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 4442 Constitutional Law 3 credits. Analysis of opinions of the United States Supreme Court concerning the distribution of authority between the national government and the states and the relationship among the branches of the national government. F

POLS 4443 Constitutional Law 3 credits. Analysis of opinions of the United States Supreme Court with a special emphasis on criminal cases and civil liberties. S

POLS 4445 Jurisprudence 3 credits. 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 credits. 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

General Courses

POLS 3350 Special Topics in Political Science 3 credits. Examine and analyze selected topics in politics. May be repeated for up to 6 credits. D

POLS 4459 Government Internship 1-9 credits. Directed student internship in political science and organizations or associations related to public policy and the selection of public officials involving supervised work experience in research, staff management practices, or making and implementing public policies. The student will be placed in a supervised position commensurate with his/her abilities as determined and approved by faculty in the department. May be repeated for up to 9 credits. Graded S/U. F, S, Su

POLS 4460 Senior Seminar 3 credits. 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 4471 Historical Geography of Idaho 3 credits. 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 4491 Seminar 1-3 credits. 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 up to 6 credits. F, S, Su

POLS 4492 Seminar 1-3 credits. 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 up to 6 credits. F, S, Su

Department of Psychology

Chair and Professor: Lynch
Professors: Hatzenbuehler, Roberts, Turley-Ames, Vik, Wong
Associate Professor: Lawyer, Letzring, Rasmussen
Assistant Professors: Brumley, Haight, Nylen, Stewart, Weller
Visiting Assistant Professor: Miyake
Adjunct Faculty: Gibson, Landers, Heyneman, Pongratz, Simonson, Sommer
Emeriti: Enloe, Joe

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, psychology students learn critical thinking and problem-solving skills by developing competence in the methods of scientific research, 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, corrections, 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 Objectives 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 (11 credits)
PSYC 1101 Introduction to Psychology 3 cr
(partially satisfies General Education Objective 6)
PSYC 2201 Careers in Psychology 1 cr
PSYC 2227 Basic Statistics 3 cr
PSYC 3303 Experimental Psychology 4 cr

Core Areas
A. Category 1: Choose two of the following four courses:
PSYC 2225 Child Development 3 cr
PSYC 3301 Abnormal Psychology 3 cr
PSYC 3341 Social Psychology 3 cr
PSYC 4401 Theories of Personality 3 cr
B. Category 2: Choose two of the following four courses:
PSYC 4431 Physiological Psychology I 3 cr
PSYC 4445 Psychology of Learning 3 cr
PSYC 4446 Cognitive Processes 3 cr
PSYC 4472 History of Psychology 3 cr

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 (10 credits)
PSYC 1101 Introduction to General Psychology 3 cr
PSYC 2227 Basic Statistics 3 cr
PSYC 3303 Experimental Psychology 4 cr
A. Category 1: Choose one of the following four courses:
PSYC 2225 Child Development 3 cr
PSYC 3301 Abnormal Psychology 3 cr
PSYC 3341 Social Psychology 3 cr
PSYC 4401 Theories of Personality 3 cr
B. Category 2: Choose one of the following four courses:
PSYC 4431 Physiological Psychology I 3 cr
PSYC 4445 Psychology of Learning 3 cr
PSYC 4446 Cognitive Processes 3 cr
PSYC 4472 History of Psychology 3 cr

Electives (6 credits)
The student must take six (6) additional elective credits in psychology.

Psychology Courses
PSYC 1101 partially satisfies Objective 6 of the General Education Requirements. PSYC 1101 or permission of the instructor is a prerequisite of all upper-division courses in psychology.
PSYC 1101 Introduction to General Psychology 3 credits. Brief history of the science of psychology and study of human behavior and mental processes. Discusses biological, cognitive, and social bases of behavior. Partially satisfies Objective 6 of the General Education Requirements. F, S
PSYC 2201 Child Abuse 3 credits. 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 credit. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 2250 Female and Male Roles 3 credits. Examines the historical and social factors involved in the present-day conceptions of male and female and the relations between the sexes. D
PSYC 3301 Abnormal Psychology 3 credits. The role of biological, psychological and sociological factors in the development of abnormal behavior of a functional nature. Neuroses, character disorders, functional psychosis, behavior disorders of childhood, and maladaptive groups. Explanatory and predictive value of several models of psychopathology. PREREQ: PSYC 1101. F, S
PSYC 3302 Abnormal Psychology II 3 credits. 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 3301. D
PSYC 3303 Experimental Psychology 4 credits. Introduction to the methods of psychological research. Students will be required to perform experiments. PREREQ: PSYC 2227. F, S
PSYC 3305 Psychology of Consciousness 3 credits. 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 phenomenonology, psychotropic drug effects, hypnosis, meditation, biofeedback, and intuition. D
PSYC 3310 Applied Techniques 2 credits. 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 credits. 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 2225. D
PSYC 3341 Social Psychology 3 credits. Study of the impact of social and cultural forces upon the individual and of the interaction between individuals producing social phenomena. PREREQ: PSYC 1101. F
PSYC 3344 Adult Development and Aging 3 credits. Study of development across adulthood, emphasizing late adulthood to death. Considers biological, social, and cognitive domains of development and contexts of change. PREREQ: PSYC 2225. D
PSYC 3369 AIDS 1 credit. 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. D
PSYC 4401 Theories of Personality 3 credits. Detailed study of the leading theories of personality with emphasis on the Freudian, Neo-Freudian, humanistic and existential theories. PREREQ: PSYC 1101. S
PSYC 4404 Sensation and Perception 4 credits. 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 4431 or PSYC 4446. AF
PSYC 4408 Science, Pseudoscience, and Psychology 3 credits. Critical evaluation of
and instrumental conditioning and motor behavior. PREREQ: PSYC 1101 and permission of instructor. F

PSYC 4446 Cognitive Processes 3 credits. 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. PRE-or-COREQ: PSYC 3303. S

PSYC 4451 Clinical Psychology 3 credits. 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. D

PSYC 4453 Theory and Method of Psychosocial Child Therapy 3 credits. Review of the psychopathology, diagnosis, and treatment of the major psychosocial disorders of childhood. PREREQ: PSYC 2225. D

PSYC 4463 Clinical Psychology and the Law 3 credits. 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. D

PSYC 4464 Dilemmas of Youth 3 credits. This course surveys theory and research concerned with dilemmas of identity formation. Personal accounts, literature—classical and psychological—will serve to illustrate dilemmas and explain their resolutions. D

PSYC 4465 Behavioral Medicine 3 credits. 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 credits. 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: Permission of instructor. D

PSYC 4472 History of Psychology 3 credits. 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. F, S

PSYC 4483 Special Problems 1-3 credits. Research or readings in a special area of interest to be arranged on an individual basis with individual faculty. May be repeated for up to 9 credits. PREREQ: Permission of instructor. D

PSYC 4491 Senior Seminar 3 credits. 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 credits. 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

Department of Sociology, Social Work and Criminal Justice

Chair and Associate Professor: Hearn
Professors: Hunter, Leavitt
Associate Professor: Jensen-Hart
Assistant Professors: Casey, Christensen, Kim, Thomas, Williams
Affiliate Faculty: Adamcik, Emeriti: Aho, Bryan, Pierson

Mission

The four programs in the Department are interrelated. The Department contributes to the mission of the College of Arts and Letters by encouraging collaboration with other departments and programs within the College. The Department concentrates on research, theory, and service in regard to the community. The community plays a pivotal role in the life of individuals and it serves as a platform from which to study health and illness, diversity and social hierarchies, and criminal justice. The focus on community issues enables us to showcase the usefulness of sociology at the graduate and undergraduate levels; to create a niche for social work, particularly in the areas of child welfare, gerontology, and sexual diversity; and to find a pivotal role for criminal justice by emphasizing rehabilitation and reintegration of offenders into the community. The agenda of the DHHS Healthy People 2020 serves as concrete guideline for conducting qualitative and quantitative research, theory building, and the generation of external funding.

The Department of Sociology, Social Work and Criminal Justice offers courses leading to the Associate of Arts degree in criminal justice, the Bachelor of Arts degree in sociology or social work, and the Master of Arts degrees in sociology. For a full description of the M.A. degrees, refer to the Graduate Catalog.

As a graduate of the program, the student is eligible to apply for licensure as a social worker to the State of Idaho. Many excellent career opportunities for social workers are available in the areas of family and children’s services, adult and juvenile corrections, health care, community mental health and services for senior citizens.
Bachelor of Arts in Sociology with a Certificate in Criminal Justice

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 Academic Information section of this Catalog).

Outcome Objectives:
The objectives of the Sociology program are:

1. To gain a well-rounded knowledge of the fields of the discipline.
2. To develop an understanding of how sociologists think, gather information, process data and reach tentative conclusions.
3. To sort out trends in social data.
4. To assist in conflict resolution between groups of people in society.
5. To engage in problem solving based on varying patterns of behavior of diverse groups.
6. To be exposed to a rich variety of perspectives and ideas.
7. To prepare for a career after graduation that is related to the sociology major.

Recommended Courses that Will Fulfill or Partly Fulfill General Education Requirements:
SOC 1102 Social Problems 3 cr (partially satisfies General Education Objective 6)
SOC 2248 Critical Analysis of Social Diversity 3 cr (satisfies General Education Objective 7)
SPAN 1101 Elementary Spanish I 3 cr (partially satisfies General Education Objective 4)

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.

Outcome Objectives

The goals of the Social Work program are:

1. Preparation of students for beginning generalist social work practice with individuals, families, small groups, organizations and communities.
2. Preparation of students to develop an identity which will incorporate the values, principles and ethics of the social work profession.
3. Preparation of students as beginning social work generalists who link social research and social work practice.
4. Preparation of students for lifelong learning and critical thinking through an educational process combining a liberal arts foundation and a professional foundation.
5. Preparation of students to work with diverse, vulnerable, oppressed and disadvantaged populations.

General Education Requirements

Students pursuing the Bachelor of Arts in Social Work must complete 8 of the 9 Objectives in the General Education program (a minimum of 36 credits—see the Academic Information section of this Catalog). Certain Objectives may be met using Social Work Program requirements; for example:

Objective 3: MATH 1108 (Intermediate Algebra) and MATH 1153 (Introduction to Statistics);
Objective 4: BIOL 1100, 1100L (Concepts Biology: Human Concerns, and Lab);
Objective 6: ECON 1100 (Economic Analysis) and PSYC 1101 (Introduction to General Psychology) or SOC 1101 (Introduction to Sociology).

Social Work Requirements

PSYC 3301 Abnormal Psychology 3 cr
SOC 1101 Introduction to Sociology 3 cr
SOC 2248 Critical Analysis of Social Diversity 3 cr
SOWK 2271 Introduction to Social Work 3 cr
SOWK 2272 Human Behavior and the Social Environment 3 cr
SOC/SOWK 3308 Sociological Methods and Social Work Research 3 cr
SOC 3309 Social Statistics 3 cr
SOWK 3371 Social Welfare Policy 3 cr

Required Courses for Bachelor of Arts in Sociology:
SOC 1101 Introduction to Sociology 3 cr (partially satisfies General Education Objective 6)
SOC 3301 Classical Social Theory 3 cr
SOC/SOWK 3308 Sociological Methods and Social Work Research 3 cr
SOC 3309 Social Statistics 3 cr
SOC 4403 Contemporary Sociological Theory 3 cr
SOC 4462 Power, Class, and Prestige 3 cr

Required Courses for Certificate in Criminal Justice:
SOC 2231 Juvenile Delinquency 3 cr
SOC 2295 Criminal Justice Internship 3 cr
SOC 4431 Criminology 3 cr
SOC 4436 Elite Deviance and Crime 3 cr
SOC 4438 Sexual Crimes 3 cr

Electives—Two Additional Courses (6 credits) from the Following List of Upper Division Courses:
SOC 3321 Families in American Society 3 cr
SOC 3366 The Community 3 cr
SOC 4492 Topics in Criminal Justice* 3 cr
TOTAL CREDITS IN THE MAJOR 39

*This is a 1-credit course that may be repeated with different content for the required number of credits.

Recommended Additional Courses:
POLS 2248 Politics and the Administration of Justice 3 cr
POLS 2249 Introduction to Criminal Law 3 cr
PSYC 2200 Child Abuse 3 cr
PSYC 3301 Abnormal Psychology I 3 cr
SOC 2250 Women, Crime and Corrections 3 cr

Credit Requirements for Graduation:
General Education Requirements (min) 36 cr
Bachelor of Arts in Sociology with Certificate in Criminal Justice 39 cr
Additional to reach University minimum 45 cr
Total credits (must include 36 Upper Division credits) 120 cr

Twelve (12) of the credits in the 36 required for General Education are also in the 39 required or recommended for this degree.

Minor in Sociology

Required Courses
SOC 1101 Introduction to Sociology 3 cr
SOC 3301 Classical Social Theory 3 cr
SOC/SOWK 3308 Sociological Methods and Social Work Research 3 cr
SOC 4462 Power, Class, and Prestige 3 cr

TOTAL: 12 cr

Elective Courses (9 credits)
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.
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/part66_46_40.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 4476-4477) is contingent upon completion of the following:

a. Completion of SOC/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.

Associate of Arts in Criminal Justice

In their second semester, students need to choose an advisor in the Criminal Justice Program.

Students completing the Associate of Arts must complete 8 of the 9 General Education Objectives (a minimum of 36 credits—see the Academic Information section of this Catalog).

Required Courses (21 credits):

POLS 2249 Introduction to Criminal Law 3 cr
SOC 1102 Social Problems 3 cr
(satisfies General Education Objective 6)
SOC 2231 Juvenile Delinquency 3 cr
SOC 2248 Critical Analysis of Social Diversity 3 cr
(satisfies General Education Objective 7)
SOC 2250 Women, Crime, and Corrections 3 cr
SOC 2295 Criminal Justice Internship 3 cr
SOC 4431 Criminology 3 cr

Electives from the following courses to reach a total of at least 64 credits:

PSYC 2200 Child Abuse 3 cr
OR
PSYC 2225 Child Development 3 cr
OR
PSYC 3301 Abnormal Psychology I 3 cr
SOC 2205 Human Sexuality 3 cr
SOC 4436 Elite Deviance and Crime 3 cr
SOC 4438 Sexual Crimes 3 cr
SOC 4492 Topics in Criminal Justice* 3 cr

*This is a 1-credit course that may be repeated with different content to reach the required credits.

Credit Requirements for Graduation:

General Education Requirements (min) 38 cr
Associate of Arts in Criminal Justice* 27 cr
Total Credits 65 cr

Six (6) of the credits in the 36 listed for General Education are also in the 27 required for the degree.

Sociology Courses

SOC 1101 Introduction to Sociology 3 credits.
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 credits. 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 2231 Juvenile Delinquency 3 credits. 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 credits. 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.

SOC 2250 Women, Crime and Corrections 3 credits. 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 3301. S

SOC 2295 Criminal Justice Internship 1-4 credits. 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 3301 Classical Social Theory 3 credits. 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 credits. 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 credits. A survey of statistical techniques focusing on descriptive statistics, hypothesis testing and correlations. Students work in computer labs and use software for statistical analysis commonly used in the social sciences to produce descriptive and summary statistics for large data sets. PREREQ: C in MATH 1153. S

SOC 3321 Families in American Society 3 credits. American families in social-historical contexts. Contemporary issues confronting families as social institutions and impact of family interaction dynamics. Cross-listed as CFS 3321. PREREQ: SOC 1101 or permission of instructor. D

SOC 3330 Sociology of Health and Illness 3 credits. Sociological examination of health and illness including historical and cultural variations, health care and physician-patient issues. S

SOC 3335 Population and Environment 3 credits. The scientific study of population and its environmental consequences. D

SOC 3366 The Community 3 credits. Examines selected theories of community origins, characteristics, structures, boundaries, and change. Analyze methods of studying various aspects of communities. PREREQ: SOC 1101. F


SOC 4402 Proseminar in Sociology 3 credits. 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 Sociological Theory 3 credits. 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 credits. Emphasizes advanced techniques in research design, data measurement, and multivariate analysis utilizing computer application. PREREQ: SOC/SOWK 3308 and SOC 3309. AS

SOC 4413 Mind, Body and Society 3 credits. 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 credits. 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 credits. 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 ideologica l 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 credits. 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 ANTH 4438 and SOWK 4438. S

SOC 4462 Power, Class, and Prestige 3 credits. Theories and methodology of status systems; the relationship 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 credits. Advanced study of the sociology of community through readings, class discussions, lectures, and a community networking internship. S

SOC 4482 Sociology Internship 1-3 credits. 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 credits. 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 4491 Topics in Sociology 3 credits. Readings, discussion, and preparation of reports on selected topics. May be repeated with different content. D

SOC 4492 Topics in Criminal Justice 3 credits. Readings, discussion, and preparation of reports on selected topics. May be repeated with different content. D

Social Work Courses

SOWK 2271 Introduction to Social Work 3 credits. 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 credits. 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 3308 Sociological Methods and Social Work Research 3 credits. 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: Admission to Social Work major. F

SOWK 3371 Social Welfare Policy 3 credits. 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: Social Work major S

SOWK 3372 Practice with Individuals and Families 3 credits. 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 credits. 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 credits. 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 4436 Elite Deviance and Crime 3 credits. Elite Deviance and Crime 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 SOC 4436. F

SOWK 4438 Sexual Crimes 3 credits. 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 ANTH 4438 and SOC 4438. S

SOWK 4476 Social Work Field Practicum I 6 credits. 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 credits. 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. COREQ: SOWK 4477. F, S

SOWK 4482 Independent Problems 1-6 credits. 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 credit. Professional competencies required for social work practice in foster care and adoption assistance programs, to prepare students for career advancement in public child welfare, and to prepare students for child welfare practice addressed by Title IV-E of the Social Security Act. PREREQ: Permission of instructor. COREQ: SOWK 4476 or SOWK 4477. D

SOWK 4485 Grief and Loss for the Helping Professional 3 credits. Prepares students to work with clients experiencing grief and loss issues stemming from a variety of loss experiences including death, physical health changes, trauma, and life transitions. Includes the philosophical, cultural, medical, psychological, and spiritual aspects of grieving and loss; the grief process and factors to consider in working with children, adolescents, and adults; and assessment of complicated grief reactions. D

SOWK 4486 Family Issues for the Helping Professional 3 credits. 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

SOWK 4487 Child Welfare Issues 3 credits. 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. F, D

SOWK 4491 Seminar 3 credits. Topical reading, discussion, exploration, experience, and demonstration of learning on selected topics. May be repeated for up to 6 credits with different content. D

SOWK 4494 Community Organization and Social Change 3 credits. 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

SOWK 4498 Integration of Social Work Methods 3 credits. 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. PREREQ: SOWK 3308, SOWK 3371, SOWK 3372, SOWK 3373, and SOC 3309. COREQ: SOWK 4477. F, S

Women Studies Program

Program Director and Associate Professor: Kuhlman (History)
Emerita: Ruckman
Advisory Committee
Members of the Advisory Board meet to review curricula, advise the director on program content, consider issues facing the field or program, and formulate strategy for the future of Women Studies at Idaho State University. Students may consult with any of the faculty in the program or on this committee:

- Dr. Juliet Carlisle (Political Science)
- Dr. Nicole Hill (Kasiska School of Health Professions)
- Dr. Ann Hunter (Sociology, Social Work and Criminal Justice)
- Ms. Kathleen Lane (Music)
- Dr. Linda Leeuwrik (Art)
- Dr. Shannon Lynch (Psychology)
- Dr. Priscilla Reis (College of Business)
- Ms. Valerie Williams (College of Education)
- Dr. Lynn Worsham (English)

Minor in Women Studies

The program in Women Studies promotes an interdisciplinary approach to learning that emphasizes gender as an essential component in an understanding of our past, present, and future. Grounded in contemporary scholarship, Women 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 and one’s place in history, one’s assigned roles and statuses, and one’s access to social, economic, and political power.

Women 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 Women Studies office is located in the Department of History, Liberal Arts Room 348 (208-282-2379).

An undergraduate interdisciplinary minor in Women Studies consists of 18 credits of courses in gender topics offered by various departments and approved by the directors of Women Studies.

**Required Courses:**

- **WS 2201** Introduction to Women Studies 3 cr
- **HIST/WS 4439** Feminism and Equality in World History 3 cr

**Choose 12 credits from:**

- **ART 4423** Nineteenth-Century Art 3 cr
- **COMM 4440** Gender and Communication 3 cr
- **ENGL 3328** Gender in Literature 3 cr
- **HE 4445** Human Sexuality and Health Education 2 cr
- **HIST 4437** Families in Former Times 3 cr
- **PSYC 2205** Human Sexuality 3 cr
- **PSYC 2250** Female and Male Roles 3 cr
- **SOC 2250** Women, Crime and Corrections 3 cr
- **SOC 3321** Families in American Society 3 cr
- **WS 1160** Rape Aggression Defense 1 cr
- **WS 4459** Internship* 1-6 cr
- **WS 4461** Independent Study* 1-3 cr

OR

Choose from courses listed as approved for this component in semester-by-semester course listings in the Class Schedule.

*Students may take up to 6 credits of WS 4459 Internship and up to 6 credits of 4461 Independent Study. A maximum of nine credits from any combination of WS 4459 Internship and WS 4461 Independent Study are applicable to the Women Studies minor.

**Women Studies Courses**

**WS 1160 Women’s Rape Aggression Defense 1 credit.** 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 and PE 1160. PREREQ: Permission of Public Safety office or sponsoring program. F, S

**WS 2201 Introduction to Women Studies 3 credits.** Interdisciplinary survey of the ways that various academic disciplines examine women’s roles and women’s issues past, present, and in various cultures, with a focus on American culture. Satisfies Objective 9 of the General Education Requirements. F

**WS 2205 Topics in Women Studies 1-3 credits.** Examination of topics related to Women Studies. D

**WS 3311 U.S. Women’s Activism 3 credits.** Social, historical, and political examination of the 19th century Women’s Suffrage Movement, the 20th century Women’s Rights Movement, and the current status of women’s rights activism. D

**WS 4405 Topics in Women Studies 1-3 credits.** In-depth examination of topics relating to women studies, especially from a comparative or theoretical perspective. D

**WS 4439 Feminism and Equality in World History 3 credits.** Interdisciplinary study of the history of feminism and women’s rights in different world regions, involving the social constructs of gender, race, and class. Women Studies minors must take WS 2201 before taking HIST/WS 4439. Equivalent to HIST 4439. S

**WS 4459 Internship 1-6 credits.** Directed student internship in organization related to Women Studies. The student will be placed in a supervised position approved by faculty in the program. May be repeated for up to 6 credits. PREREQ: WS 2201. D

**WS 4461 Independent Study 1-3 credits.** Selected readings and research in areas of Women Studies not covered by the regular curricular offerings. May be repeated for up to 6 credits. PREREQ: 3.0 cumulative GPA and WS 2201 or equivalent; permission of instructor. D
College of Business

Thomas Ottaway, Ph.D., Interim Dean
Corey Schou, Ph.D., Associate Dean for Information Assurance
Jeff Street, Ph.D., Associate Dean
Joanne Tokle, Ph.D., Associate Dean

Department of Accounting
Chair: (Vacant)
Professors: Frischmann, Picard, K. Smith
Assistant Professors: Konicek, Lim
Emeriti: Boes, J. Smith

Department of Computer Information Systems
Chair and Professor: Parker
Professors: Beachboard, Ottaway, C. Schou
Lecturer: Nelson
Emeritus: Watts

Department of Finance
Chair and Professor: Byers
Professors: Hackert, Khang, Brookman
Associate Professors: Santhanakrishnan
Emeriti: Longmore, Wells

Department of Management
Chair and Professor: Jolly
Professors: Krumwiede, Murphy, Tokle
Associate Professors: Street, Tocher
Assistant Professor: Bolinger
Visiting Assistant Professor: Gerry
Senior Lecturers: Peppers, S. Schou
Lecturer: Peterson
Emeriti: Gantt, Johnson, Kilpatrick, Pawar, Stratton

Department of Marketing
Chair and Professor: Speck
Assistant Professor: McCardle
Emeriti: Balsley, LeBlanc, Nitse, Scott

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. There are seven majors available—Accounting, Computer Information Systems, Finance, General Business, Management, Marketing, and Health Care Information Systems Management. The College of Business also offers minors in Business Administration, Computer Information Systems, Marketing, and International Commerce. In addition, the Master of Business Administration degree is offered through the Graduate School. The B.B.A., M.B.A., 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:

• Apply key concepts from financial and managerial accounting in their chosen profession.
• Solve open-ended problems using critical thinking skills appropriately.
• Identify relevant financial data and apply decision-appropriate models.
• Implement the “marketing concept” (a customer-oriented approach to assessing markets and creating market offerings).
• Demonstrate knowledge of the strategic management process.
• Develop effective written business communications.
• Prepare and deliver persuasive, professional presentations on a business issue.
• Effectively use technology to find information and analyze data as part of a problem-solving process.
• Appropriately apply organizational behavior concepts to allow them to work effectively in teams and as part of the larger organization.
• Identify operations issues and apply appropriate business decisions.
• Demonstrate an appreciation for and basic understanding of the globally interdependent, culturally diverse nature of business today.
• Demonstrate ethical reasoning skills within a business context.

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 CIS 3301 and all other 3000-level business courses.

Laptops are a critical component in the undergraduate curriculum. Both exposure to and mastery of technology prepare students to excel in today’s technology-driven business environment and is expected by employers. There are numerous advantages to owning your own notebook computer that you can bring to class. Some courses are technology-intensive, and those courses will use classroom exercises and tests using the computer in class. Outside of class, students find that the ability to communicate and collaborate with classmates and professors greatly enhances their productivity. By making computer use an integral part of their educational environment, students develop a level of familiarity and expertise with the technology that cannot be gained by only occasional use in a computer lab or at home.

There is no specific configuration required for the laptop. It must be capable of running the Windows version of MS Office, including MS Access (this is the database program that is not available in the Apple Mac version of MS Office). One of the primary criteria to consider when purchasing should be long battery life.

Admission to Major Status
Students wishing to major in disciplines offered in the College of Business are first enrolled at Idaho State University as Pre-Business students. To move from Pre-Business status to Business major status, students must be formally admitted to the College of Business. Students begin the admission process by completing an application form and submitting it, together with an official copy of their transcript, to the office of the College of Business. The application process should occur during the semester in which the student will complete the remainder of these courses.

1. complete at least 58 credit hours.
2. complete the remainder of the specific lower division requirements listed in the "Minimum Criteria for Admission" section below.

All College of Business majors are required to meet the Minimum Criteria listed below before they may enroll in upper division College of Business courses (those courses numbered 3000 and above). Pre-business students enrolled in upper division College of Business courses without admission to Business major status will be administratively withdrawn. Pre-Business status remains in effect until the student meets the Business Major admission requirements.

Incoming freshmen or transfer students should plan their scheduled course work in order to complete the requirements for admission to Business major status. Information regarding Business major status along with application for admission are available from:

Undergraduate Programs Coordinator
College of Business
Location: BA 202
Phone: (208) 282-3448

Minimum Criteria for Admission to Business Major Status
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 2.25 grade point average among these required courses. Application may be made during the semester in which the student completes the remainder of these courses.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tr>
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<td>3</td>
</tr>
<tr>
<td>MATH 1143</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL: 27 cr

Students must have a minimum cumulative grade point average of 2.25. Students must have completed 58 credit hours. The 58 hours may include transfer credits and courses the student is taking during the application semester. Students must submit to the office of the College of Business a completed application form.

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. The College delivers daytime and nighttime 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 Academic Information section of this Catalog). Note that certain Objectives may be met by specific College of Business requirements listed below: Objective 6 is partially satisfied by ECON 2201 or 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 Objectives.

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<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tr>
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</tbody>
</table>

TOTAL: 21 cr

All College of Business majors are required to meet the Minimum Criteria listed below before they may enroll in upper division College of Business courses (those courses numbered 3000 and above). Pre-business students enrolled in upper division College of Business courses without admission to Business major status will be administratively withdrawn. Pre-Business status remains in effect until the student meets the Business Major admission requirements.

Incoming freshmen or transfer students should plan their scheduled course work in order to complete the requirements for admission to Business major status. Information regarding Business major status along with application for admission are available from:

Undergraduate Programs Coordinator
College of Business
Location: BA 202
Phone: (208) 282-3448

Minimum Criteria for Admission to Business Major Status
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 2.25 grade point average among these required courses. Application may be made during the semester in which the student completes the remainder of these courses.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 2201</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 2202</td>
<td>3</td>
</tr>
<tr>
<td>BA 1110</td>
<td>3</td>
</tr>
<tr>
<td>COMM 1101</td>
<td>3</td>
</tr>
<tr>
<td>ECON 2201</td>
<td>3</td>
</tr>
<tr>
<td>ECON 2202</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1102</td>
<td>3</td>
</tr>
<tr>
<td>MGT 2216</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1143</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL: 27 cr

Students must have a minimum cumulative grade point average of 2.25. Students must have completed 58 credit hours. The 58 hours may include transfer credits and courses the student is taking during the application semester. Students must submit to the office of the College of Business a completed application form.
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 MATH 1143 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

Accounting Major
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.

Required Courses
ACCT 3323 Intermediate Accounting I 3 cr
ACCT 3324 Intermediate Accounting II 3 cr
ACCT 3331 Principles of Taxation 3 cr
ACCT 3341 Managerial and Cost Accounting 3 cr
ACCT 4425 Intermediate Accounting III 3 cr
ACCT 4456 Auditing 3 cr
ACCT 4403 Accounting Information Systems 3 cr OR
CTIS 4403 Information Systems Analysis and Design 3 cr
ACCT 4440 Accounting Practicum 3-6 cr OR
ACCT 3393 Accounting Internship 3-6 cr OR
MGT 4411 Small Business and Entrepreneurship Practicum 3 cr

Complete one track as outlined below
(each has underlying prerequisites; consult the course descriptions):
Operations:
MGT 4434 Productivity and Quality 3 cr
MGT 4482 Project Management 3 cr

Information Assurance:
CIS 3310 Introduction to Information Assurance 3 cr
CIS 4411 Intermediate Information Assurance 3 cr

Information Systems:
CIS 4403 System Analysis and Logical Design 3 cr
CIS 4407 Database Design and Implementation 3 cr

Finance:
FIN 4405 Advanced Corporate Financial Management 3 cr
FIN 4450 Advanced Corporate Financial Management II 3 cr

Computer Information Systems Major
The Computer Information Systems 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, CIS 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 CIS majors are uniquely positioned to apply technology to effectively support an organization's operations.

Required Courses (12 cr):
CIS 1120 Web Development: Client-Side Programming 3 cr
CIS 2285 Introduction to Software and Systems Architecture 3 cr
CIS 4403 Systems Analysis and Logical Design 3 cr
CIS 4407 Database Design and Implementation 3 cr

Plus TWO of the following (6 cr):
CIS 2220 Foundations of Computer Programming 3 cr
CIS 3320 Advanced Business Programming 3 cr
CIS 4411 Intermediate Information Assurance 3 cr
CIS 4421 Multimedia in Business 3 cr
CIS 4424 Decision Support Systems 3 cr
CIS 4430 Business and Web Development 3 cr
CIS 4440 Object-Oriented Development 3 cr
CIS 4482 Advanced System Analysis and Design 3 cr
CIS 4485 Network and Communications Systems 3 cr
CIS 4486 Business Systems Simulation 3 cr
CIS 4487 Software Systems 3 cr
CIS 4490 Management of Information Systems and Information Security 3 cr
CIS 4491 Seminar in Computer Information Systems 3 cr
CIS 4492 Special Problems in Computer Information Systems 3 cr
CIS 4493 Advanced Computer Information Systems Internship 1-3 cr
MGT 4482 Project Management 3 cr

In consultation with their major advisors, students may also use courses outside the College of Business to satisfy elective requirements.

Finance Major
Finance majors may earn a degree in Finance without emphasis or a degree in Finance with emphasis in Entrepreneurship/Small Business (see description of emphasis following the major in Marketing).

Required Courses:
FIN 4405 Advanced Corporate Financial Management I 3 cr
FIN 4450 Advanced Corporate Financial Management II 3 cr
FIN 4478 Investments 3 cr

Plus THREE of the following, of which TWO must be within the Finance Department:
FIN 4431 Financial Modeling 3 cr
FIN 4445 Real Estate Finance 3 cr
FIN 4448 Financial Management of Depository Institutions 3 cr
FIN 4451 Student-Managed Investment Fund I 3 cr
FIN 4452 Student-Managed Investment Fund II 3 cr
FIN 4464 Entrepreneurial Finance 3 cr
FIN 4475 International Corporate Finance 3 cr
FIN 4484 Options and Futures 3 cr
FIN 4491 Seminar in Finance 3 cr
FIN 4492 Special Problems in Finance 3 cr
FIN 4493 Advanced Finance Internship 1-3 cr

Any 3000-4000 level Economics course except Independent Studies, Seminars, Workshops, and Internships 3 cr
Any 3000-4000 level Accounting, Management, CIS, or Marketing course except ACCT 3360, Seminars, Special Problems, Internships, and courses used to fulfill the College of Business Core Requirements. Graduated internships may count as Finance electives only with prior departmental approval. 3 cr

TOTAL: 18 cr

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. Students must receive a grade of C- (C-minus) or better in all six courses to fulfill the required 18 credits of the General Business Major.

Choose six classes from this list to complete the major:
ACCT 3360 Small Business Accounting 3 cr
ACCT 4441 Management Control Systems 3 cr
CIS 4403 Systems Analysis and Logical Design 3 cr
CIS 4407 Database Design and Implementation 3 cr
FIN 4431 Financial Modeling 3 cr
FIN 4478 Investments 3 cr
MGT 4410 Entrepreneurship 3 cr
MGT 4441 Organizational Behavior 3 cr
MGT 4465 International Business 3 cr
MKTG 4432 New Product Management 3 cr
MKTG 4475 Competitive Intelligence 3 cr

TOTAL: 18 cr

Health Care Information Systems Management Major
The Bachelor of Business Administration Degree in Health Care Information Systems Management 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 support in healthcare organizations. Upon graduation, students will receive a major in Computer Information Systems in addition to the Health Care Information Systems Management major. Information systems play an increasingly important role in the burgeoning healthcare field. The Health Care Information Systems Management (HISM) degree is intended to develop the skills necessary to manage information systems in a healthcare environment. Combining courses in healthcare administration, general business, and computer information systems, the HISM degree prepares students to work in hospitals, health clinics, and doctors' offices, as well as other health-related organizations.

Required Courses:
CIS 1120 Foundations of Computer Programming 3 cr
CIS 2285 Introduction to Software and Systems Architecture 3 cr
CIS 4403 Systems Analysis and Logical Design 3 cr
CIS 4407 Database Design and Implementation 3 cr
CIS 4411 Intermediate Information Assurance 3 cr
CIS 4485 Network and Communications Systems 3 cr
MGT 4482 Project Management 3 cr
Management Major
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 (see descriptions of emphases following the major in Marketing).

Required Courses:
- MGT 4441 Organization Behavior 3 cr
- MGT 4462 Issues in Business and Society 3 cr
- MGT 4473 Human Resource Management 3 cr

Plus THREE of the following:
- MGT/MKTG 4411/Entrepreneurship 3 cr
- MGT/MKTG 4411 Small Business and Entrepreneurship Practicum** 3 cr
- MGT 4454 Advanced Marketing Management 3 cr
- MGT 4493 Advanced Marketing Internship 3 cr

Plus FOUR Marketing Electives from the following list:
- MKTG/MC 2200 Introduction to Advertising 3 cr
- MKTG/MC 3355 Advertising Copywriting 3 cr
- MKTG 3367 Markets and Segmentation 3 cr
- MKTG 3368/MC 3367 Advertising Media Planning 3 cr
- MKTG/MC 3375 Special Projects in Advertising 3 cr
- MKTG/MKTG 4410/Entrepreneurship 3 cr
- MKTG/MKTG 4411/Entrepreneurship Practicum** 3 cr
- MKTG 4421 Services Marketing 3 cr
- MKTG 4432 New Product Management 3 cr
- MKTG 4465 International Marketing 3 cr
- MKTG 4491 Seminar in Marketing 3 cr
- MKTG 4492 Special Problems in Management 3 cr
- MKTG 4493 Marketing Internship 3 cr
- MKTG/MC 4495 Applied Research Methods 3 cr
- Others from courses in catalog, when offered

* Only two courses cross-listed with a given department may be counted as Marketing electives (e.g., only two Mass Communication courses and/or two Management courses). At least one of the electives must be offered from the Marketing Department, e.g., New Product Management, Services Marketing, International Marketing.

**MKTG/MKTG 4411 may be taken as a Marketing elective only if not already chosen for the experiential requirement.

Marketing Major
Marketing majors may earn a degree in Marketing without emphasis or a degree in Marketing with emphasis in Entrepreneurship/Small Business (see description below). Only two courses cross-listed within a given department may be counted as Marketing electives (e.g., only two Mass Communication courses and/or two Management courses). At least one of the electives must be offered from the Marketing Department, e.g., New Product Management, Services Marketing, International Marketing.

Required Courses:
- MKTG 3327 Consumer Behavior 3 cr

AND one of the following experientially-based courses:

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 4411 Entrepreneurship 3 cr
   - MGT 4441 Small Business and Entrepreneurship Practicum 3 cr

And two of the following:
- ACCT 3341 Managerial and Cost Accounting 3 cr
- ACCT 3360 Small Business Accounting and Finance 3 cr
- FIN 4464 Entrepreneurial Finance 3 cr
- MKTG 4432 New Product Management 3 cr
- MKTG 4475 Competitive Intelligence 3 cr

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.

Required Courses:
- MGT 4441 Organization Behavior 3 cr
- MGT 4462 Issues in Business and Society 3 cr
- MGT 4473 Human Resource Management 3 cr
- MGT 4474 Advanced Human Resource Management 3 cr
- MGT 4480 Labor and Employment Law 3 cr
And one of the following:
MGT 4434  Productivity and Quality  3 cr
MGT 4461  Business Law  3 cr
MGT 4482  Project Management  3 cr
TOTAL: 18 cr

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:
   MGT 4420  Native American Organization Systems  3 cr
   MGT 4422  Native American Enterprise  3 cr
3. Plus 6 credits of program-approved electives.

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 4482 to satisfy major electives and the Operations Management Emphasis Requirements.

Required courses:
ACCT 3341  Management and Cost Accounting  3 cr
MGT 4434  Productivity and Quality  3 cr
MGT 4482  Project Management  3 cr

One elective to be chosen from the following courses:
CIS 4403  Systems Analysis  3 cr
CIS 4486  Business System Simulation  3 cr
CIS 4490  Management of Information Systems  3 cr
FIN 4450  Advanced Corporate Financial Management  3 cr
MKTG 4432  New Product Management  3 cr
MKTG 4421  Services Marketing  3 cr

Minor in Computer Information Systems
Students receiving degrees in all colleges may satisfy the requirements for a Computer Information Systems minor by completing the following courses. Students pursuing this minor should seek assignment of a minor advisor early in their program to complete a Program of Study Agreement.

Required Courses:
CIS 1120  Interactive Web Development  3 cr
CIS 3301  Management Systems  3 cr
CIS 4403  Systems Analysis and Logical Design  3 cr

Information Systems Electives
Plus 12 additional credits chosen from any CIS courses (except CIS 1101) or MGT 4482.

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:
   ECON 4434  International Trade  3 cr
   ECON 4435  Comparative Economic Systems  3 cr
   FIN 4475  International Corporate Finance  3 cr
   MKTG 4440  Seminar in International Marketing  3 cr
   MKTG 4465  International Business  3 cr
   MKTG 4466  International Marketing  3 cr

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.

Admission 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):

- ACCT 2201,2202: Principles of Accounting I and II (6 cr)
- CIS 3301: Information Systems and Problem Solving (3 cr)
- ECON 2201,2202: Principles of Macroeconomics and Microeconomics (6 cr)
- FIN 3315: Corporate Financial Management (3 cr)
- MGT 2216,2217: Business Statistics (6 cr)
- MGT 3312: Individual and Organizational Behavior (3 cr)
- MGT 3329: Operations/Production Management (3 cr)
- MKTG 2225: Basic Marketing Management (3 cr)

**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):

- ACCT 2201,2202: Principles of Accounting I and II (6 cr)
- CIS 3301: Information Systems and Problem Solving (3 cr)
- ECON 2201,2202: Principles of Macroeconomics and Microeconomics (6 cr)
- FIN 3315: Corporate Financial Management (3 cr)
- MGT 2216,2217: Business Statistics (6 cr)
- MGT 3312: Individual and Organizational Behavior (3 cr)
- MGT 3329: Operations/Production Management (3 cr)
- MKTG 2225: Basic Marketing Management (3 cr)

**Required Courses (6 credit hours):**
- MKTG 2225: Basic Marketing Management (3 cr)
- MKTG 3327: Consumer Behavior (3 cr)

**Marketing Electives (at least 6-12 credit hours):**
Two to four Marketing electives; this may include any elective from the list of Marketing courses below. The number of Marketing electives taken will depend on whether or not a student seeks to count courses from their major as coursework for the Marketing minor (up to two relevant courses will be allowed to do so).

- MKTG/MC 2200: Introduction to Advertising (3 cr)
- MKTG/MC 3355: Advertising Copywriting (3 cr)
- MKTG 3367: Markets and Segmentation (3 cr)
- MKTG 3368/MC 3367: Advertising Media Planning (3 cr)
- MKTG/MC 3375: Special Projects in Advertising (3 cr)
- MKTG 4421: Services Marketing (3 cr)
- MKTG 4432: New Product Management (3 cr)
- MKTG 4465: International Marketing (3 cr)
- MKTG 4491: Seminar in Marketing (3 cr)
- MKTG 4492: Special Problems in Marketing (3 cr)
- MKTG/MC 4495: Applied Research Methods (3 cr)

Other courses approved by Marketing Department chair.

**Other Electives from Student’s Major Related to Marketing (no more than 6 credit hours which must be at 2000-level or higher):**
Examples of courses which would qualify for inclusion in the Marketing minor:

- MKTG/MC 2200: Introduction to Advertising (3 cr)
- MC 2241: Introduction to Public Relations (3 cr)
- COMM 3355: Nonverbal Communication (3 cr)
- ANTH 2250: Introduction to Socio-cultural Anthropology (3 cr)
- PSYC 2256: Female and Male Roles (3 cr)
- SOC 3335: Population and Environment (3 cr)
- SOC 3366: The Community (3 cr)

These electives must be approved prior to completion of MKTG 2225 by the chair of the Marketing Department in order to be counted toward the minor. Mass Communication majors may not count more than two Mass Communication courses for their Marketing minor coursework (including those that are cross-listed in Marketing).

**Post-Baccalaureate Certificate in Computer Information Systems**

A certificate in Computer Information Systems is offered for those students who have a bachelor’s degree in a field other than CIS and want to improve their knowledge of information systems. To earn a certificate in CIS, a student must complete 30 total credits from the following list. At least twelve of those credits must be taken after the student has completed a bachelor’s degree.

**Required Courses (33 credits):**
- CTS 2120: Interactive Web Development (3 cr)
- CTS 3220: Foundations of Computer Programming (3 cr)
- CTS 3285: Introduction to Software and Systems Architecture (3 cr)
- CTS 3301: Information Systems and Problem Solving (3 cr)
- CTS 4403: Systems Analysis and Logical Design (3 cr)
- CTS 4407: Data Base Physical Design and Implementation (3 cr)
- CTS 4482: Advanced System Analysis and Design (3 cr)
- CTS 4485: Network and Communications Systems (3 cr)
- CTS 4490: Management of Information Systems (3 cr)
- CTS 4497: Computer Information Systems (3 cr)

Business Electives (chosen from list below) (6 cr)

Students must take six hours of Business electives in any of the following areas:
- Accounting
- Finance
- Management
- Marketing

At least three credits of Business elective courses must be taken as upper division coursework (3000 or 4000 level).

Students must receive a grade better than a C- in all coursework that applies to the certificate in CIS.

Students must meet with an advisor and complete a program of study prior to the second semester of coursework.

**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 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 cr |
| ACCT 2202 | Principles of Accounting II | 3 cr |
| CIS 1101 | Digital Resources for Information Literacy | 3 cr |
| ECON 2201-2202 | Principles of Microeconomics and Macroeconomics | 6 cr |
| MGT 2216 | Advanced Business Statistics | 3 cr |
| MGT 2217 | Legal Environment of Organizations | 3 cr |

Electives

Business electives* | 6 cr
TOTAL: 30 cr

* 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.

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 (MACC) 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 MACC 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 classes, 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 1160 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: ENGL 1102, COMM 1101, ECON 2201, ECON 2202, MATH 1160, MATH 1130 and 1143, ACCT 2202, MGT 2216, and MGT 2261.
2. Will be awarded 13 undesignated 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.

Accounting Courses

ACCT 2200 Personal Tax Planning 3 credits. 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 credits. Study of financial accounting processes, including analysis and recording of transactions, preparation of financial statements, and written communication of financial information. PREREQ: ENGL 1101 and MATH 1143. F, S

ACCT 2202 Principles of Accounting II 3 credits. 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 credits. 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 credits. 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 credits. 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 credits. Study of federal income taxation and its application to individual taxpayers and business enterprises. Practical problems in making and filing returns. PREREQ: Admission to Accounting major. F, S

ACCT 3341 Managerial and Cost Accounting 3 credits. A strategic approach to supporting managerial decision-making throughout an organization and across the value chain. Emphasizes the measurement, analysis, communication and control of financial and nonfinancial accounting information. PREREQ: ACCT 2202 and MGT 2217. PRE-or-COREQ: ENGL 3308. F, S

ACCT 3360 Small Business Accounting 3 credits. Practical accounting issues related to starting and managing a small business, including taxes, system design and implementation, financial presentation and analysis, and personal financial planning. PREREQ: ACCT 2201 and ACCT 2202. D

ACCT 3393 Accounting Internship 1-3 credits. Internship program coordinated by faculty providing significant exposure to accounting issues. May not be used to fulfill major requirements. May be repeated for up to 3 credits. Graded S/U. F, S

ACCT 4400 Managerial Tax Planning 3 credits. 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 credits. 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 pri-
mary business cycles, interrelationship between them, and impact on accounting information. Includes assessment of risks in information processing and reporting. PREREQ: Accounting or Computer Information Systems major; CIS 3301. PRE-or-COREQ: ACCT 3323 and ACCT 3341. F, S

ACCT 4425 Intermediate Accounting III 3 credits. 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 credits. Specialized federal tax concepts for individuals, business, estates, and trusts. Elaborates on basic principles discussed in Principles of Taxation. PREREQ: ACCT 3331. D

ACCT 4433 Legal Environment of Accounting 3 credits. 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 credits. Advanced students apply accounting concepts to business issues through consulting projects under faculty supervision. Class discussions supplement field work. PREREQ: Accounting major; ACCT 3341. PRE-or-COREQ: ACCT 3331 and ACCT 4425. D

ACCT 4441 Management Control Systems 3 credits. Focuses on strategic and managerial evaluation and control systems using financial and nonfinancial accounting information. PREREQ: ACCT 3341 or senior standing and permission of instructor. D

ACCT 4456 Auditing 3 credits. Concepts and practices of independent and internal auditing. Professional responsibilities, risk assessment, audit planning and reporting. PREREQ: ACCT 3324. PRE-or-COREQ: ACCT 4403 or CIS 4403. F, S

ACCT 4457 Advanced Auditing 3 credits. 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 credits. Accounting and reporting principles, standards and procedures applicable to governmental units and not-for-profit institutions, i.e., universities, hospitals. Special consideration to financial management problems peculiar to the not-for-profit sector. PREREQ: ACCT 3324. D

ACCT 4461 Advanced Accounting 3 credits. 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 credits. 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 credits. 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 credits. 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 instructor. D

ACCT 4492 Special Problems in Accounting 1-3 credits. 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 credits. 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

Business Administration Courses

BA 1110 The World of Business 3 credits. 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 credit. 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. PRE-or-COREQ: ACCT2202. F, S, Su

BA 2203 Issues in Business 3 credits. 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 credit. 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 credit. Examination of critical thinking models and development of writing, oral communication, and teamwork skills using assignments from CIS 3301. Must be taken concurrently with the same numbered section of CIS 3301. COREQ: CIS 3301. F, S, Su

BA 3302 Professional Development Seminar III 1 credit. 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 credit. 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 credit. 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 credit. 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

Computer Information Systems Courses

CIS 0010 Fundamental Computer Literacy 0 credits (3 credit equivalent). Use of basic computer software to solve problems in the academic setting. Includes familiarization with word processing, presentations, spreadsheet, Internet. Graded S/U. D

CIS 1101 Digital Resources for Information Literacy 3 credits. This course 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

CIS 1101L Digital Resources for Information Literacy Lab 0 credit. Assignments to apply concepts from CIS 1101. F, S

CIS 1110 Web Development: Essentials 3 credits. Introduction to the fundamentals of web site creation. Students will develop, manage, and maintain professional web sites using HTML5 and Cascading Style Sheets, exploring Web site design and layout, accessibility, and globalization issues. D

CIS 1120 Web Development: Client-side Programming 3 credits. Introduces interactive and responsive 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: CIS 1110 or permission of instructor. F, S
CIS 2219 Introduction to Informatics Practicum 1-3 credits. Informatics experience under close faculty supervision designed to provide broad exposure to issues including Information Assurance. Does not fulfill major/ minor requirements. May be repeated for up to 6 credits. Graded S/U. PREREQ: Permission of instructor. D

CIS 2220 Foundations of Computer Programming 3 credits. Introduction to concepts of computers and computer-programming hardware and software, programming with an object-oriented visual language, data structures, file organization and processing. Lectures, laboratories. PREREQ: MATH 1143, CIS 1120 or any programming course. D

CIS 2220L Foundations of Computer Programming Laboratory 0 credits. Assignments to apply concepts from CIS 2220. D

CIS 2225 Introduction to Software and Systems Architecture 3 credits. Principles and architecture of computer hardware and systems software in the context of designing business IT infrastructures through combination of theory-based lectures and applied laboratory experiences. PREREQ: CIS 1120 or CS 1181. D

CIS 2285L Introduction to Software and Systems Architecture Lab 0 credits. Assignments to apply concepts from CIS 2285. D

CIS 3301 Information Systems and Problem Solving 3 credits. Techniques and tools for analyzing and solving business problems. Development of technology-based knowledge and skills for communicating solutions. Introduction to uses of information systems in an organizational context. PRE-or-COREQ: MGT 2216 or any statistics course and CIS 1101 equivalent skills and knowledge. F, S

CIS 3302 Information Systems 3 credits. Operational and strategic uses of information systems in an organizational context. Examination of critical thinking models and development of writing, oral communication, and teamwork skills. PREREQ: CIS 3301. D

CIS 3303 Information Technology Concepts 3 credits. A hands-on, applied approach to providing the software tools that Business minor students are likely to need in an academic setting and early in their careers. The course places an emphasis on the business use of spreadsheets and interaction with the Internet along with current issues in information technology. Available to non-Business majors only. D

CIS 3310 Introduction to Information Assurance 3 credits. 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-CIS majors. Not applicable toward CIS major. D

CIS 3320 Advanced Business Programming 3 credits. Advanced programming; dynamic data structures; file organization and processing; efficient searching and sorting techniques. Includes study of an object-oriented visual language and a comparison with a modern database language. PREREQ: CIS 2220. D

CIS 3393 Computer Information Systems Internship 1-3 credits. Internship program coordinated by faculty providing significant exposure to Computer Information System issues. May not be used to fulfill major requirements. May be repeated for up to 3 credits. Graded S/U. F, S

CIS 4403 Systems Analysis and Logical Design 3 credits. Develops systems analysis skills, using modern CASE techniques, prototyping with a relational database, structured analysis and design phases of the systems development life cycle. PREREQ: CIS 3301 and junior status. F, S

CIS 4407 Database Design and Implementation 3 credits. Design and implementation of multi-user relational DBMS. Use of stored procedures, advanced SQL, query optimization, transaction processing, DBMS information assurance and administration. Secure object-oriented design, programming and UML. PREREQ: CIS 1120 or CS 1181, and CIS 4403. D

CIS 4411 Intermediate Information Assurance 3 credits. Focuses on homeland security, information assurance, integrity, control, and privacy. Covers CNSS-4011, NIST-800-16 standards, national policy, and international treaties. PREREQ: CIS 2285 or CIS 3310, or permission of instructor. D

CIS 4412 Systems Security for Senior Management 1-3 credits. Review of system architecture, system security measures, system operations policy, system security management plan, and provisions for system operator and end user training. PREREQ: CIS 4411 or permission of instructor. D

CIS 4413 Systems Security Administration 1-3 credits. 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. PREREQ: CIS 4411 or permission of instructor. D

CIS 4414 Systems Security Management 1-3 credits. 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. PREREQ: CIS 4411 or permission of instructor. D

CIS 4415 System Certification 1-3 credits. Describes techniques and methods for certifying a system is in compliance with national and governmental information assurance standards. Evaluates various certification methodologies. PREREQ: CIS 4411 or permission of instructor. D

CIS 4416 Risk Analysis 1-3 credits. 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 insights into various likelihood and consequence combinations. PREREQ: CIS 4411 or permission of instructor. D

CIS 4419 Advanced Informatics Practicum 1-3 credits. 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

CIS 4424 Decision Support Systems 3 credits. Study of the design and implementation of decision support tools and techniques using programming languages and skills. PREREQ: CIS 4403, FIN 3315, and MGT 2217. D

CIS 4430 Ebusiness and Web Development 3 credits. Technical and business topics related to conducting business over the Internet and other networks, including implementation technologies, electronic money and funds transfer, legal and regulatory considerations, security and privacy issues. PREREQ: CIS 1120. D

CIS 4440 Object-Oriented Development 3 credits. The organization of software as a collection of discrete objects incorporating both data and operations performed on that data. Concepts of object-oriented development, including classes, inheritance, and encapsulation in a modern object-oriented language. PREREQ: CIS 2220. D

CIS 4482 Advanced Systems Analysis and Design 3 credits. Provides the knowledge and tools necessary to develop a physical design and an operational computerized system in a secure environment. PREREQ: CIS 4403, CIS 4407, MGT 3312, MGT 3329, FIN 3315, FIN 3317, and MKTG 3325, or graduate status. D

CIS 4482L Advanced Systems Analysis and Design Laboratory 0 credit. Assignments to apply principles in CIS 4482. COREQ: CIS 4482. D

CIS 4485 Network and Communication Systems 3 credits. Study of the implementation and development of network information systems. Protocols and techniques will be compared. PREREQ: CIS 2285 or permission of instructor. D

CIS 4485L Network and Communication Systems Laboratory 0 credits. Assignments to apply principles in CIS 4485. COREQ: CIS 4485. D

CIS 4486 Business System Simulation 3 credits. Study, construction, and operation of computer simulations as aids for management and administrative decisions. PREREQ: CIS 1120, MGT 2217, or permission of instructor. D

CIS 4487 Software Systems Study of the Software Implementation Process 3 credits. In addition to system optimization techniques, management strategies will be discussed. PREREQ: CIS 4403. D

CIS 4488 Senior Project 3 credits. Design, implementation and testing of a large software program. Senior status and permission of instructor. D

CIS 4490 Management of Information Systems and Information Security 3 credits. Study of the problems associated with the organization, management and operation of information technology services. PREREQ: CIS 3302 or permission of instructor. D
CIS 4491 Seminar in Computer Information Systems 3 credits. Reading, discussion, and reporting on selected topics. May be repeated for up to 6 credits with permission of instructor. PREREQ: Senior or graduate status in Business, and permission of instructor. D

CIS 4492 Special Problems in Computer Information Systems 1-3 credits. Research and reports on problems or topics in computer science. May be repeated for up to 9 credits with different content. PREREQ: Senior or graduate status in Business, and permission of the dean. D

CIS 4493 Advanced Computer Information Systems Internship 3 credits. Significant business experience coordinated by the faculty to provide broad exposure to computer information system issues. Letter grading. F, S

Finance Courses

FIN 1115 Personal Finance 3 credits. Introductory course for non-Business or Business majors, oriented to personal financial planning. Topics include budgeting, real estate, investing fundamentals, credit management, insurance, retirement planning, and personal income taxes. D

FIN 3303 Financial Concepts 3 credits. 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 credits. 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: Admission to Major. F, S

FIN 3317 Fundamentals of Investments, International Finance, and Financial Markets 3 credits. Investment basics such as time value of money, risk and return, bond and stock valuation, interest rate determination, and portfolio theory. Introduces topics in banking and financial markets, exchange rate theory, and international financial management. PREREQ: FIN 3315 and Admission to Major. F, S

FIN 3391 Finance Internship 1-3 credits. Internship program coordinated by faculty providing significant exposure to financial 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 1 credits. Asset valuation models, required returns, risk analysis in capital budgeting models, cost of capital determination, and factors affecting the firm’s capital structure and dividend policy. PREREQ: FIN 3315 and MGT 2216. F

FIN 4431 Financial Modeling 3 credits. Survey of integrated 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 credits. 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 credits. 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 4450 Advanced Corporate Financial Management II 3 credits. Advanced development of financial statement analysis, financial planning, working capital management and special topics emphasizes analysis and application to financial management decisions. PREREQ: FIN 3315 and MGT 2216. S

FIN 4451 Student-Managed Investment Fund 13 credits. 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 3317. F

FIN 4452 Student-Managed Investment Fund II 3 credits. 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 3317. S

FIN 4464 Entrepreneurial Finance 3 credits. 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 credits. 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 and MGT 2216. D

FIN 4478 Investments 3 credits. 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 and FIN 3317. F, S

FIN 4484 Options and Futures 3 credits. Examination of the pricing and use of options, financial futures, swaps, and other derivative securities. PREREQ: FIN 3315 and FIN 3317. D

FIN 4491 Seminar in Finance 3 credits. 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 instructor. D

FIN 4492 Special Problems in Finance 2-3 credits. Research and reports on selected problems or topics in finance. 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

FIN 4493 Advanced Finance Internship 3 credits. Internship coordinated by faculty providing significant exposure to financial issues. May not be used to fulfill major requirements. Letter grading. F, S

Management Courses

MGT 1101 Introduction to Business 3 credits. 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 credits. 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. PRE-or-COREQ: MATH 1143. F, S

MGT 2217 Advanced Business Statistics 3 credits. 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. PRE-or-COREQ: MATH 1143. F, S

MGT 2261 Legal Environment of Organizations 3 credits. 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 3303 Management Concepts 3 credits. 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 credits. 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 credits. Basic concepts, philosophy, and techniques of analysis for decision-making at the operational level. PREREQ: MGT 2217 and admission to College of Business. PRE-or-COREQ: CIS 3301. F, S
MGT 3345 Critical Analysis and Creative Problem Solving 3 credits. 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: MGT 3312. F, S

MGT 4450 Manufacturing Strategy 3 credits. 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 credits. 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 credits. 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 credits. Seminar course designed to focus thinking on critical issues facing managers making 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 credits. 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. PREREQ: FIN 3317. D

MGT 4473 Human Resource Management 3 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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

MKTG 4491 Seminar in Management 3 credits. Reading, discussion, and preparation of reports on selected topics. May be repeated for up to 6 credits with permission of instructor. PREREQ: Senior or graduate status in Business, and permission of instructor. May be graded S/U. D

MKTG 4492 Special Problems in Management 3-3 credits. 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

MKTG 4493 Advanced Management Internship 3 credits. 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. F, S

Marketing Courses

MKTG 2200 Introduction to Advertising 3 credits. In-depth study of the various aspects of advertising including agencies, media, clients, suppliers, creativity in advertising, consumers, ethics and law, strategy, and culture. Equivalent to MC 2200. F

MKTG 2203 Marketing Concepts 3 credits. Basic marketing concepts that emphasize fundamental decision-making process. Topics include segmentation and targeting, marketing mix, promotional mix, marketing ethics, and marketing internationally. Projects include developing a personal marketing plan and researching the role of marketing in the students’ chosen majors. Available to non-business majors only. D

MKTG 2225 Basic Marketing Management 3 credits. 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 3327 Consumer Behavior 3 credits. Analysis of the psychological and sociological aspects of consumer decision-making and behavior including learning, consumer perception, influence of individual predispositions on buying processes, and group influences. PREREQ: MKTG 2225. F, S

MKTG 3350 Personal Selling 3 credits. Attention given to product features, buying motives, selling points, principles and practices of selling, psychology of salesmanship, sales problems, personal requirements, opportunities. PREREQ: COMM 2201, MKTG 2225. D

MKTG 3353 Marketing Analysis Methods 3 credits. Data analysis techniques to improve marketing operations and research. Use of models to assist in understanding marketing phenomena and decision-making. PREREQ: MKTG 2225. F

MKTG 3355 Advertising Copywriting 3 credits. Includes overview of basic creative skills, with emphasis on how to write creative advertising for print, radio, television, and the Internet. PREREQ: Objective I, MC 1119, MC
1121, MC 2200, and MC 2215, or permission of instructor with demonstrated professional experience. Equivalent to MC 3355. F

MKTG 3367 Markets and Segmentation 3 credits. An in-depth analysis of the segmentation, targeting and positioning process. Examines segmentation as it operates in the macro-environment and as it impacts price, promotion and brand decisions. PREREQ: MKTG 2225. D

MKTG 3368 Advertising Media Planning 3 credits. 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. Equivalent to MC 3367. PREREQ: MC/MKTG 2200 or permission of instructor. S

MKTG 3370 Sales and Sales Management 3 credits. Attention given to buying motives, principles of selling, psychology of salesmanship, personal requirements and motivation, allocation of personal sales effort, and methods of organizing, evaluating, and controlling this effort. PREREQ: MKTG 2225. D

MKTG 3375 Special Projects in Advertising 3 credits. Students work as a team to apply persuasive mass communication principles to solving a real-world client marketing communication problem. May be repeated for up to 6 credits. Equivalent to MC 3375. PREREQ: Permission of instructor. D

MKTG 3393 Marketing Internship 1-3 credits. 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 Sales Force Management 3 credits. 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 credits. Developing new business ideas, initiating a new enterprise, bringing new technology to the market; applying sound business practices involving management, marketing, accounting, finance and CIS to accommodate changing marketing opportunities. PREREQ: FIN 3315, MGT 3312, and MKTG 2225; Business major or permission of dean. Equivalent to MGT 4410. D

MKTG 4411 Small Business and Entrepreneurship Practicum 3 credits. 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 credits. 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 4426 Marketing Research 3 credits. 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. S

MKTG 4428 Integrated Brand Promotion 3 credits. Planning and execution of advertising, sales promotion, and public relations programs developed into an integrated brand promotion program. Includes development of a strategic marketing plan. PREREQ: MKTG 2225. D

MKTG 4432 New Product Management 3 credits. Analysis of new product ideas: screening, business analysis, prototype development, marketing testing, and commercialization of goods and services. Includes diffusion of innovation issues in consumer and industrial markets. PREREQ: MKTG 2225. D

MKTG 4440 Seminar in International Marketing 3 credits. Assessment of export potential using secondary research regarding the export feasibility of products offered by select firms in Southeast Idaho. PREREQ: MKTG 2225 and permission of the instructor. D

MKTG 4454 Advanced Marketing Management 3 credits. 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 credits. 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 4425. D

MKTG 4475 Competitive Intelligence 3 credits. How to use competitive intelligence to gain strategic advantages. Includes understanding of information gathering techniques, the conversion of information into intelligence, various analysis methodologies, and intelligence dissemination processes. PREREQ: MKTG 2225. D

MKTG 4480 Marketing on the Internet 3 credits. 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 credits. Reading, discussion, and preparation of reports on selected topics. May be repeated for up to 6 credits with permission of instructor. PREREQ: At least senior level and permission of instructor. D

MKTG 4492 Special Problems in Marketing 2-3 credits. Research and reports on selected problems or topics in marketing. May be repeated for up to 9 credits with different content and permission of major advisor and the dean. PREREQ: At least senior level and permission of the dean. D

MKTG 4493 Advanced Marketing Internship 3 credits. Internship program coordinated by faculty providing significant exposure to marketing issues. May not be used to fulfill major requirements. F, S

MKTG 4495 Applied Research Methods 3 credits. Introduces and develops practical methods for designing, conducting and analyzing studies used in many public relations, advertising and marketing campaigns. Students will create complete studies. Equivalent to MC 4495. PREREQ: MATH 1153 or MGT 2216, or permission of instructor. D
College of Education

Deborah L. Hedeen, Ph.D., Dean
Peter R. Denner, Ph.D., Associate Dean
Susan Jenkins, Ph.D., Assistant Dean

The College of Education prepares students (known as “candidates”) who seek to enter education-related professions. Candidates pursuing teaching, professional school personnel, or administrative careers in schools and other professional roles will find an assortment of integrated programs organized to meet their professional aspirations. All programs of the College are experiential, collaborative, standards-based, assessment-informed, research-guided, and technology-supported. Idaho State University has an institutional commitment to educator preparation. Educator preparation programs are offered through the faculties of the College of Education, the College of Arts and Letters, the College of Science and Engineering, and the Division of Health Sciences.

College Structure
The College is organized into four academic departments and five centers/offices:

Department of Educational Foundations
David Mercaldo, Ph.D., Chair

The Department of Educational Foundations 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.

Graduate Department of Educational Leadership and Instructional Design
Dotty Sammons-Lohse, Ed.D., Chair

The Graduate Department of Educational Leadership and Instructional Design offers graduate programs in instructional technology, instructional design, and educational leadership, including both public school and higher education administration.

Department of School Psychology, Literacy, and Special Education
David Mercaldo, Ph.D., Chair

The Department of School Psychology, Literacy, and Special Education offers undergraduate degrees in human exceptionality, and graduate degrees in human exceptionality, literacy, school psychology, and deaf education. The department also offers literacy courses for undergraduate teacher preparation programs.

Department of Sport Science and Physical Education
John Fitzpatrick, Ph.D., Chair

The Department of Sport Science and Physical Education offers undergraduate and graduate degrees in physical education, and the physical education major for secondary education. The undergraduate degrees have four elective emphasis areas—exercise science, outdoor education, physical education teaching K-12, and sport management. Minors in coaching, outdoor education, and sport management are also offered.

Intermountain Center for Education Effectiveness
Charles (Chuck) R. Zimmerly, Ed.D., Director
Susan Jenkins, Ph.D., Associate Director

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.

Advising Center
Paula Mandeville, M.Coun., Coordinator

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.

Office of Field Experiences
Debra Zikratch, M.Ed., Coordinator

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.

Instructional Materials Center
Shu-Yuan Lin, Ed.D., Coordinator

The Instructional Materials Center (IMC) serves as the state repository for curricular materials currently under adoption in Idaho. The Center also houses varied collections of other materials including teaching manipulatives, video and audiotapes, computer software, theses and dissertations, and other professional materials. These collections are maintained to serve students and faculty in the College of Education, the entire campus community, and area in-service educators.

Regional Special Education Office
Beth Eloe-Reep, M.S., Consultant
Shannon Mavek, M.Ed., Consultant
Frank Howe, M.Ed., Consultant

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 Early Childhood Education
- Bachelor of Arts or Bachelor of Science in:
  - Elementary Education
  - Family and Consumer Sciences
  - Human Exceptionality (Special Education)
  - Physical Education
  - Secondary Education
- 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 meet the objectives and complete all of the University's general education requirements. 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 General Information 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 the program requirements for a teaching certificate, must fulfill, or have fulfilled General Education Objectives 1, 2, and 3 prior to placement in a Student Teaching Internship (or equivalent). Checklists available in the College of Education Advising Center provide guidance for candidates in the elementary, secondary, and 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 bachelor’s degrees from accredited institutions seeking teaching certification. Candidates pursuing initial teacher certification, whether degree seeking or not, must fulfill all teacher education requirements as outlined for institutional recommendations 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 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) 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 sequence of courses (regular route) that starts in May of each calendar year is available for qualified candidates interested in a Standard Secondary Certificate (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.

Alternative Routes to Certification

Idaho permits individuals to become certified 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.

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 or the College of Education Office of Field Experiences.

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 admittance may reapply when qualification criteria have been met; however, they must meet the standards for admission in place at the time of their reapplication to attain admission.

Criteria for admission include the following:

1. A 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) 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) 1108 Intermediate Algebra  
b) 1143 College Algebra  
c) 2256 Structure of Arithmetic for Elementary School Teachers  
d) 2257 Structure of Geometry and Probability for Elementary School Teachers  
   (each of the last two courses satisfies University General Education Objective 3)

**Secondary**

a) 1123 Mathematics in Modern Society  
b) 1127 The Language of Mathematics  
c) 1130 Finite Mathematics  
d) 1153 Introduction to Statistics  
e) 1160 Applied Calculus  
f) 1170 Calculus I  
   (each of the 6 courses above satisfies University General Education Objective 3)

3. A successful background check (see 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 EDUC 2215 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 EDUC 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 College of Education 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 (latest revision, Idaho State Department of Education). Although admission to Teacher Education is 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. 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, 4494, 4495, or 4496, BED 4496, CFS 4493 or 4495, PE 4495, 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 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.

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 stated elsewhere in the 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 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.
Department of Educational Foundations

Chair and Professor: Mercaldo
Professors: Denner, Jenkins, Ray
Associate Professors: Julie Newsome, Sanger
Assistant Professors: Bennett, Green, Hooley, Kelle, Moulton, Ruchti
Clinical Instructor: Brown
Associate Lecturers: Jacobsen, Lin, Ntuli
Assistant Lecturer: Toevs
Emeriti: Bliss, Coffland, Lerch, Luckey, Marcum, Jack Newsome, Pehrsson, Peha, Rankin, Sagness, Salzman, Spadafore

The Department of Educational Foundations is comprised of the following program areas:
- Child and Family Studies
- Elementary Education
- Secondary Education

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 section and in the Secondary Single Subject Teaching Majors.

Business Education Courses

BED 1100 Electronic Keyboarding 1 credit. Participants will learn the touch method of keyboarding for entering information into various types of equipment through the use of a typewriter-like keyboard and a ten-key pad. D, W

BED 1102 Intermediate Keyboarding 3 credits. Instruction in typing/formatting letters, tabulations, manuscripts, and business forms on typewriters and microcomputers. Skill building will be attained, utilizing microcomputers and appropriate software. Laboratory time will be in addition to formal class instruction. PREREQ: 35 WPM or permission of instructor. D

BED 3310 Microcomputers in Business Education 3 credits. An investigation into the role of microcomputers in the Business Education Curriculum. Basic concepts of computer applications in data base, spread sheet, word processing, keyboarding, and accounting will be covered. D, W

BED 3320 Clerical Procedures 3 credits. Instruction in telephone techniques, filing and retrieving, mail/communications, reprographics, technical services and information processing. Microcomputers with appropriate software will be utilized. Laboratory time will be in addition to formal class instruction. PREREQ: 1 semester keyboarding or permission of instructor. D

BED 3330 Advanced Technology in Business Education 3 credits. Designed to prepare potential business educators with respect to the latest technological advances and microcomputer applications as they relate to the secondary business education curriculum. S, W

BED 3332 Methods in Business Education 3 credits. Designed to prepare the potential business education teacher with the necessary methodology to successfully teach business education courses at the secondary level. D

BED 3396 Work Experience in Business Occupations 1-2 credits. Credits awarded for work experience as verified by written/performance evaluation. Graded S/U. D

BED 4485 Independent Study in Business Education 1-3 credits. 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 credits. 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

Child and Family Studies Program

The Child and Family Studies program includes several undergraduate options:
- Bachelor of Arts in 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. A master’s degree emphasis in Child and Family Studies is also offered; this degree program is described in the Graduate Catalog.
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

- CFS 1100 Child and Family Studies 1 cr
- CFS 2209 Early Childhood Environments 3 cr
- CFS 2229 Textile Products 3 cr
- CFS 3314 Interior Design and Housing Perspectives 3 cr
- CFS 3332 Programs in Family and

Recommended Electives

- CFS 4429 Social and Psychological Aspects of Clothing 3 cr
- CFS 4431 Family Resource Management 3 cr
- CFS 4435 Relationships Within Families 3 cr
- CFS 4470 Consumer Economics 3 cr
- EDUC 2201 Development and Individual Differences 3 cr
- EDUC 2204 Families, Communities, Culture 3 cr
- NTD 1104 Foods 3 cr
- NTD 1139 Consumer Nutrition 3 cr
- NTD 2204 Meal Management 2 cr

TOTAL: 39 cr

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 occupational teacher preparation coursework. Candidates must also have accumulated two (2) years (4,000 clock hours) of related work experience or shall have completed an approved practicum in their field of specialization.

It is recommended that a candidate complete the Family and Consumer Sciences Education major and a supporting teaching minor such as Consumer Economics, Health or Natural Science.

Summary of Requirements for a Bachelor of Science Degree in Secondary Education with a Family in Major 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 advisor as early as possible in the program.

Recommended Electives

- CFS 4471 Advanced Consumer Economics 3 cr
- CFS 4472 Teaching Consumer Economics 3 cr
- CFS 4494 Partnerships with Professionals 3 or 6 cr
- ECON 2201 Principles of Macroeconomics 3 cr
- ECON 2202 Principles of Microeconomics 3 cr
- HRD 4444 Career Guidance and Special Needs in Professional-technical Education 3 cr
- NTD 2239 Nutrition 3 cr
- NTD 3312, 3312L Quantity Foods, and Lab 3 cr
- NTD 4459 Sports Nutrition 3 cr

TOTAL: 36 cr

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:

- CFS 4431 Family Resource Management 3 cr
- CFS 4470 Consumer Economics 3 cr
- CFS 4471 Advanced Consumer Economics 3 cr

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Bachelor of Arts in Early Childhood Education

The Bachelor of Arts in Early Childhood Education degree program is designed to prepare professionals in the field of early childhood education. Early Childhood Education is the study and education of young children from birth through third grade.

Candidates majoring in Early Childhood Education may elect to pursue a Standard K-8 teaching certificate or 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 at each level of preparation.

Candidates interested in pursuing Early Childhood Education, either as a major field of endeavor or as a support component area, are advised to contact the coordinator for Child and Family Studies for general information and program advisement.

Summary of Requirements for a Bachelor of Arts degree in Early Childhood Education

1. Completion of General Education requirements of the University.
2. Completion of a major in Early Childhood Education including:
   a. Required coursework for the Early Childhood Education major
   b. Supporting coursework leading to EITHER an Idaho Standard K-8 Certificate OR the Blended ECE/ECSE Certificate.

Required coursework leading to both emphases:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CFS 1109</td>
<td>Introduction to the Early Childhood Profession</td>
<td>2</td>
</tr>
<tr>
<td>CFS 2203</td>
<td>The Young Child 3-8</td>
<td>3</td>
</tr>
<tr>
<td>CFS 2209</td>
<td>Early Childhood Environments and Interactions</td>
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</tr>
<tr>
<td>CFS 3373</td>
<td>Curriculum and Assessment in ECE</td>
<td>4</td>
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<tr>
<td>CFS 3374</td>
<td>Constructing Social Understanding in ECE</td>
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<tr>
<td>CFS 3375</td>
<td>Integrating Practice in ECE</td>
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<tr>
<td>CFS 4411</td>
<td>Concepts and Practices in Blended ECE Programs I</td>
<td>3</td>
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<tr>
<td>CFS 4412</td>
<td>Concepts and Practices in Blended ECE Programs II</td>
<td>3</td>
</tr>
<tr>
<td>PE 3357</td>
<td>Elementary Physical Education</td>
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</tr>
<tr>
<td>EDUC 2204</td>
<td>Family, Community, Culture</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 2215</td>
<td>Preparing to Teach with Technology</td>
<td>3</td>
</tr>
</tbody>
</table>

Additional Coursework leading to Idaho Blended ECE/ECSE Certificate Emphasis:

CFS 2207    The Young Child Birth to Three | 3 |
CFS 4440    Partnerships with Families of Young Children | 3 |
SPED 4424   Assessment in Special Education | 3 |
SPED 4429   Strategies for Severe Disabilities | 3 |

Additional Coursework leading to Idaho Standard K-8 Certificate Emphasis:

CFS 4435    Family as Developmental Context | 3 |
MUSC 2233   Music Methods for Elementary Teachers | 3 |
EDUC 2201   Development and Individual Differences | 3 |
EDUC 2235   Introduction to Elementary Art Methods / Materials | 1 |
EDUC 3301   Inquiry, Thinking, Knowing     | 3 |
EDUC 3302   Motivation and Management | 3 |
EDUC 3309   Planning, Delivery and Instruction | 6 |
EDUC 3336   Social Studies Methods | 3 |
SPED 3330   The Exceptional Child | 3 |
SPED 3350   Creating Inclusive Classrooms | 3 |

Child and Family Studies Courses

CFS 1100    Child and Family Studies Professions 1 cr. 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 credits. Foundations and professional careers in early childhood education and early childhood special education. S
CFS 1120    Personal Economics 3 cr. 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 credits. 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

Minor in Family and Consumer Sciences

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CFS 3314</td>
<td>Interior Design and Housing Perspectives</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>
</tr>
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<td>CFS 4431</td>
<td>Family Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 2201</td>
<td>Development and Individual Differences</td>
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</tr>
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<td>EDUC 2204</td>
<td>Families, Communities, Culture</td>
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<tr>
<td>NTD 1104</td>
<td>Foods</td>
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Select one course from the following:

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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 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 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>NTD 2204</td>
<td>Meal Management</td>
<td>2</td>
</tr>
<tr>
<td>NTD 2239</td>
<td>Nutrition</td>
<td>3</td>
</tr>
</tbody>
</table>

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.

College of Education
CFS 2207 Infants and Toddlers in Early Childhood Education 3 credits. 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 credits. 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 credits. 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 Perspectives 3 credits. 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 credits. 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 credits. 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 credits. 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 ECE 4 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 Consumer Economics 3 credits. 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 credits. 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 credits. 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 credits. 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 credits. Candidates assume instructional and management responsibilities in supervised early childhood/primary setting. PREREQ: Admission to Teacher Education Program and/or approved application. Graded S/U. F, S

CFS 4494 Partnerships with Professionals 3 or 6 credits. 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, HRD 4457 or HRD 4455, and permission of instructor. D

Bachelor of Arts or Bachelor of Science in Elementary Education

The emerging elementary education profession is expected to:

1. select general education Objective 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.
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 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).

Requirements for Elementary Education Standard Certification Only
1. Completion of the Professional Education Core:
   EDUC 2201 Development and Individual Differences 3 cr
   EDUC 2204 Families, Communities, Culture 3 cr
   EDUC 2215 Preparing to Teach with Technology 3 cr
   EDUC 3301 Inquiring, Thinking, Knowing 3 cr
   EDUC 3322 Motivation and Management 3 cr
   EDUC 3309 Instructional Planning, Delivery, and Assessment 6 cr
   SPED 3350 Creating Inclusive Classrooms 3 cr
   EDUC 4494 Elementary Education: Student Teaching Internship 6-12 cr

2. Completion of the Elementary Education Professional Courses:
   EDUC 2235 Introduction to Elementary Education Methods 3 cr
   EDUC 3321 Integrated Language Arts Methods 3 cr
   EDUC 3322 Literature for Children across the Curriculum 3 cr
   EDUC 3330 Mathematics Methods 3 cr
   EDUC 3331 Elementary Mathematics Methods 3 cr
   EDUC 3336 Social Science Methods 3 cr
   EDUC 4419 Developmental Literacy 3 cr
   MATH 2211 Health Education Methods/ Elementary 1 cr
   MATH 2256 Structure of Arithmetic for Elementary School Teachers 3 cr
   MATH 2257 Structure of Geometry and Probability for Elementary School Teachers 3 cr
   MUSC 2233 Music Methods for Elementary School Teachers 2 cr
   PE 3357 Methods of Teaching Elementary Physical Education 3 cr

Elementary Emphasis Areas

Biology (minimum of 20 cr)

Required Courses
   BIOL 1101, 1101L Biology I, and Lab 4 cr
   BIOL 1102, 1102L Biology II, and Lab 4 cr
   BIOL 2209, 2209L General Ecology, and Lab 4 cr
   BIOL 2401 Animal biology electives 3-4 cr
   BIOL 4413 Biological Teaching Methods 3 cr

Strongly Recommended
   BIOL 2206, 2207 Cell Biology, and Lab* 4 cr
   *CHEM 1111, 1111L General Chemistry I and Lab, 5 credits, is a prerequisite for BIOL 2206, 2207.

Earth Sciences (minimum of 21 cr)

   GEOL 1100, 1100L The Dynamic Earth, and Lab 4 cr
   OR
   GEOL 1101, 1101L Physical Geology, and Lab 4 cr
   GEOL 1110* Physical Geology for Scientists Laboratory 1 cr
   GEOL 2202 Historical Geology 3 cr

   GEOL 2210 Earth in Space and Time 3 cr
   GEOL 3315 Evolution of the Earth’s Surface 3 cr
   GEOL 4400 Geology Teaching Practicum 1 cr
   GEOL 4410 Science in American Society 2 cr
   GEOL/POLS 4471 Historical Geography of Idaho 3 cr

Plus electives from the following, to reach a total of at least 21 credits:
   GEOL 4416 Global Environmental Change 3 cr
   GEOL 4422 Planetary Geology for Teachers 3 cr
   GEOL 4436 Geology of Southern Idaho 2 cr
   GEOL 4458 Geology of North America 3 cr
   GEOL 4491 Seminar 1 cr
   Other geoscience electives may be approved by advisor.

   *Note: Candidates must take GEOL 1110 even if they have taken the lab for GEOL 1100 or GEOL 1101 (GEOL 1100L or GEOL 1101L).

English (a minimum of 21 cr)

Linguistics/Grammar: three (3) semester credit hours
   ENGL 2280 Grammar and Usage 3 cr
   OR
   ENGL 2281 Introduction to Language Studies 3 cr

American Literature: three (3) semester credit hours
   ENGL 2277 Survey of American Literature I 3 cr
   OR
   ENGL 2278 Survey of American Literature II 3 cr

English Literature: three (3) semester credit hours
   ENGL 2267 Survey of British Literature I 3 cr
   OR
   ENGL 2268 Survey of British Literature II 3 cr

Advanced Composition: six (6) semester credit hours, EXCLUDING the introductory sequence

Two of the following courses (6 cr):
   ENGL 2206 Creative Writing Workshop 3 cr
   ENGL 3307 Professional and Technical Writing 3 cr
   ENGL 3308 Business Communications 3 cr
   ENGL 4401 Advanced Composition and Prose Analysis 3 cr
   ENGL 4406 Advanced Creative Writing Workshop 3 cr

Coursework in writing methods for teachers of secondary students
   ENGL 4433 Methods: Teaching English 3 cr
   The remaining credit hours must be completed using an Upper Division ENGL Elective 3 cr

History (21 cr)

Category I – World Regions: 6 credits, one course of which must be HIST 1101 or HIST 1102
   HIST 1101 Foundations of Europe 3 cr
   HIST 1102 Modern Europe 3 cr
   HIST 2251 Latin American Civilization 3 cr
   HIST 2252 East Asian History 3 cr
   HIST 2254 Middle Eastern History 3 cr
   HIST 2255 African History and Culture 3 cr

Category III – Courses for Teachers
   HIST-4418 United States History for Teachers 3 cr
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 the University’s General Education Requirements (see the Academic Information section and the Graduation Requirements 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.

Required Secondary Education Course
EDUC 4401 Content Area Literacy 3 cr

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 cr
   EDUC 2204 Families, Communities, Culture 3 cr
   EDUC 2215 Preparing to Teach with Technology 3 cr
   EDUC 3301 Inquiring, Thinking, Knowing 3 cr
   EDUC 3302 Motivation and Management 3 cr
   EDUC 3309 Instructional Planning: Delivery, and Assessment 6 cr
   EDUC 3311 Instructional Technology 3 cr
   SPED 3350 Creating Inclusive Classrooms 3 cr
   SPED 4496 Secondary Education: Student Teaching Internship 7-14 cr
3. Completion of Secondary Education Required Course:
   EDUC 4401 Content Area Literacy 3 cr

Secondary Education Teaching Majors and Minors
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 adapt instruction to meet the needs of diverse learners.
5. Fosters family and community relationships that promote student learning.
Biological Sciences Major

MATH 1160 Applied Calculus 3 cr
OR
MATH 1153 Introduction to Statistics 3 cr
BIOL 1101, 1101L Biology I and Lab 4 cr
BIOL 1102, 1102L Biology II and Lab 4 cr
BIOL 2206, 2207 Cell Biology, and Lab 4 cr
BIOL 2209, 2209L General Ecology, and Lab 4 cr
BIOL 3358 Genetics 3 cr
BIOL 4413 Biochemistry 3 cr
Approved Plant Biology elective** 3-4 cr
Approved Animal Biology elective** 3-4 cr
*BIOL 2206, 2207 have a prereq of CHEM 1112, 1112L

**Approved electives are listed in the Biological Sciences section of the College of Science and Engineering.

Biological Sciences Minor

MATH 1160 Applied Calculus 3 cr
OR
MATH 1153 Introduction to Statistics 3 cr
BIOL 1101, 1101L Biology I and Lab 4 cr
BIOL 1102, 1102L Biology II and Lab 4 cr
BIOL 2206, 2207* Cell Biology, and Lab 4 cr
BIOL 4413 Biochemistry 3 cr
Approved Plant Biology elective** 3-4 cr
Approved Animal Biology elective** 3-4 cr
*BIOL 2206, 2207 have a prereq of CHEM 1112, 1112L

**Approved electives are listed in the Biological Sciences section of the College of Science and Engineering.

Business Education Major

ACCT 2201 Principles of Accounting I 3 cr
BED 1102 Intermediate Keyboarding 3 cr
BED 3310 Microcomputers in Business Education 3 cr
BED 3320 Clerical Procedures 2 cr
BED 3330 Advanced Technology in Business Education 3 cr
BED 3332 Methods in Business Education 3 cr
CFS 4470 Consumer Economics 3 cr
HRD 4401 Foundations of Educational Leadership 3 cr
HRD 4444 Career Guidance and Special Needs in Professional-Technical Education 3 cr
HRD 4468 Teaching Cooperative Education and School-to-Work 3 cr

Select 3 credits from the following:
ECON 1100 Economic Issues 3 cr
ECON 2201 Principles of Microeconomics 3 cr

Business Education Minor

ACCT 2201 Principles of Accounting I 3 cr
BED 1102 Intermediate Keyboarding 3 cr
BED 3310 Microcomputers in Business Education 3 cr
BED 3320 Clerical Procedures 2 cr
BED 3332 Methods in Business Education 3 cr
HRD 4401 Foundations of Educational Leadership 3 cr

Select 3 credits from the following:
CFS 4470 Consumer Economics 3 cr
ECON 1100 Economic Issues 3 cr
ECON 2201 Principles of Microeconomics 3 cr

Chemistry Minor

CHEM 1111, 1111L General Chemistry I, and Lab 5 cr
CHEM 1112, 1112L General Chemistry II, and Lab 4 cr
CHEM 2211 Inorganic Chemistry I 3 cr
CHEM 3211 Inorganic Chemistry I Lab 1 cr
CHEM 4400 Practicum in Physical Science 2 cr
Approved electives in Chemistry 7 cr

Communication and Rhetorical Studies Major

MC 1119 Introduction to Mass Media 3 cr
COMM 2208 Group Communication 3 cr
COMM 3305 Argumentation and Debate 3 cr
COMM 4436 Rhetorical Criticism 3 cr
COMM 4437 Rhetorical Theory 3 cr
COMM 4441 Interpersonal Communication 3 cr
THEA 1111 Stagecraft I 3 cr
THEA 1118 Oral Interpretation 3 cr
THEA 2251 Beginning Acting 3 cr
THEA 3351 Materials and Methods for High School Speech Arts 3 cr
One 4000 level elective in Speech 3 cr

Communication and Rhetorical Studies Minor

COMM 2208 Group Communication 3 cr
COMM 3305 Argumentation and Debate 3 cr
COMM 4436 Rhetorical Criticism 3 cr
COMM 4437 Rhetorical Theory 3 cr
COMM 4441 Interpersonal Communication 3 cr
One 4000 level elective in Speech 3 cr

Consumer Economics Minor

CFS 4431 Family Resource Management 3 cr
CFS 4470 Consumer Economics 3 cr
CFS 4471 Advanced Consumer Economics 3 cr
ECON 2201 Principles of Macroeconomics 3 cr
ECON 2202 Principles of Microeconomics 3 cr

Choose two of the following (6 credits):
ACCT 2201 Principles of Accounting I 3 cr
ACCT 2202 Principles of Accounting II 3 cr
CFS 4472 Teaching Consumer Economics 3 cr
ECON 3323 Economic History 3 cr
ECON 4433 Microeconomic Theory 3 cr
ECON 4434 Macroeconomic Theory 3 cr

Electives (6 credits minimum)
CSED 1151 American Sign Language I 4 cr
CSED 1152 American Sign Language II 4 cr
CSED 2251 American Sign Language III 4 cr
CSED 2252 American Sign Language IV 4 cr
CSED 3327 Basic Sign I 2 cr
CSED 3328 Basic Sign II 2 cr
CSED 4465 Neurological Bases of Communication Disorders 3 cr

* (non-certificate) TOTAL: 24 cr
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

ECON 2201 Principles of Macroeconomics 3 cr
ECON 2202 Principles of Microeconomics 3 cr
ECON 3301 Macroeconomic Theory 3 cr
ECON 3302 Microeconomic Theory 3 cr
Approved electives in Economics 15 cr

Economics Minor

ECON 2201 Principles of Macroeconomics 3 cr
ECON 2202 Principles of Microeconomics 3 cr
ECON 3301 Macroeconomic Theory 3 cr
ECON 3302 Microeconomic Theory 3 cr
Approved electives in Economics 12 cr

English Major

ENGL 2211 Introduction to Literary Analysis 3 cr
ENGL 2267 or 2268 Survey of British Literature I or II 3 cr
ENGL 2277 or 2278 Survey of American Literature I or II 3 cr
ENGL 2280 Grammar and Usage 3 cr
ENGL 2281 Introduction to Language Studies 3 cr
ENGL 3311 Writing and Research About Literature 3 cr
ENGL 443* Methods: Teaching English 3 cr
ENGL 4491 Senior Seminar in Literature 3 cr

One of the following:
ENGL 4472 Proseminar in a Major Literary Figure 3 cr
ENGL 4473 Chaucer 3 cr
ENGL 4474 Milton 3 cr
ENGL 4476 Shakespeare 3 cr

Plus one additional course from the following:
ENGL 2257 or 2258 Survey of World Literature I or II 3 cr
ENGL 2267 or 2268 Survey of British Literature I or II 3 cr
ENGL 2277 or 2278 Survey of American Literature I or II 3 cr
Approved electives (6 cr must be upper division) 9 cr
* ENGL 4433 must be completed before Student Teaching Internship.

English Minor

ENGL 2211 Introduction to Literary Analysis 3 cr
ENGL 2267 or 2268 Survey of British Literature I or II 3 cr
ENGL 2277 or 2278 Survey of American Literature I or II 3 cr
ENGL 2280 Grammar and Usage 3 cr
ENGL 2281 Introduction to Language Studies 3 cr
ENGL 3311 Writing and Research About Literature 3 cr
ENGL 443* Methods: Teaching English 3 cr

Plus one course from the following:
ENGL 2206 Creative Writing Workshop 3 cr
ENGL 3307 Professional and Technical Writing 3 cr
ENGL 3308 Business Writing 3 cr
ENGL 4401 Advanced Composition 3 cr
ENGL 4431 Teaching and Writing Projects: Special Topics 3 cr

Plus one course from the following:
ENGL 2257 or 2258 Survey of World Literature I or II 3 cr
ENGL 2267 or 2268 Survey of British Literature I or II 3 cr
ENGL 2277 or 2278 Survey of American Literature I or II 3 cr
* ENGL 4433 must be completed before Student Teaching Internship.

English as a Second Language (ESL) Minor

Foreign Language (8 credits) Choose 8 credits from any foreign language.

Multicultural Education (6 credits) Choose two courses from:
ANTH/ENGL 2212 Introduction to Folklore/Oral Tradition 3 cr
ANTH 2250 Introduction to Sociocultural Anthropology 3 cr
ENGL 3356 Ethnicity and Minority Literature 3 cr
SOC 2248 Critical Analysis of Social Diversity 3 cr

ESL Methodology (7 credits)
EDUC 4460 Foundations of ESL 3 cr
EDUC 4463 ESL Methods 3 cr
EDUC 4464 ESL Practicum 1 cr

Linguistics (6 credits)
ANTH/ENGL/LANG 1107 Nature of Language 3 cr
Choose one course from:
ANTH 4450 Introduction to Sociolinguistics 3 cr
ANTH/LANG 4455 Linguistic Analysis I 3 cr

Family and Consumer Sciences Minor
CFS 2203 The Young Child 3 cr
CFS 3314 Interior Design and Textile Products 3 cr
CFS 3332 Programs in Family and Consumer Sciences 3 cr
CFS 4429 Social and Psychological Aspects of Clothing 3 cr
CFS 4431 Family Resource Management 3 cr
EDUC 2204 Families, Communities, Culture 3 cr
NTD 1104 Foods 3 cr

Select one course from the following:
CFS 2209 Early Childhood Environment 3 cr
CFS 2229 Textile Products 3 cr
CFS 4435 Relationships Within Families I 3 cr
CFS 4470 Consumer Economics 3 cr
NTD 2204 Meal Management 2 cr
NTD 2239 Nutrition 3 cr

French Major
FREN 3301-3302 French Conversation and Composition 6 cr and their prerequisites or equivalent high school courses.
LANG 4437 The Teaching of Foreign Languages 3 cr
Upper division electives in French* 12 cr
*Must be approved by the Department of Languages and Literatures and the College of Education.

French Minor
FREN 2201-2202 Intermediate French 8 cr (or equivalent)
LANG 4437 The Teaching of Foreign Languages 3 cr
Approved electives in French* 12 cr
*Must be approved by the Department of Languages and Literatures and the College of Education.

Geology Major (at least 30 cr)
GEOL 1100, 1100L The Dynamic Earth, and Lab 4 cr OR
GEOL 1101 Physical Geology 3 cr
GEOL 1101* Physical Geology for Scientists Lab 1 cr
GEOL 2202 Historical Geology 3 cr
GEOL 2210 Earth in Space and Time 3 cr
GEOL 3313** Earth Materials I 3 cr
GEOL 3315 Evolution of the Earth's Surface 3 cr
GEOL 4400 Geology Teaching Practicum 1 cr
GEOL 4406 Environmental Geology 3 cr
GEOL/PHYS 4410 Science in American Society 2 cr
GEOL/HIST/POLS 4471 Historical Geography of Idaho 4 cr

Plus approved electives from the following, to reach a total of at least 30 credits:
GEOL 3314 Earth Materials II 3 cr
GEOL 4403 Principles of GIS 3 cr
GEOL 4405 Volcanology 3 cr
GEOL 4416 Global Environmental Change 3 cr
GEOL 4420 Principles of Geochemistry 3 cr
GEOL 4422 Planetary Geology for Teachers 3 cr
GEOL 4430 Principles of Hydrogeology 3 cr
GEOL 4431 Geobiology and the History of Life 4 cr
GEOL 4452 Sedimentation Stratigraphy 4 cr
GEOL 4456 Geology of Southern Idaho 2 cr
GEOL 4458 Geology of North America 3 cr
GEOL 4491 Seminar 1 to 3 cr
Other geoscience courses as approved by Geoscience advisor
*Note: Candidates must take GEOL 1110 even if they have taken the lab for GEOL 1100 or GEOL 1101 (GEOL 1100L or GEOL 1101L). **(PREREQ or COREQ is CHEM 1111)

Geology Minor (at least 22 cr)
GEOL 1100, 1100L The Dynamic Earth, and Lab 4 cr OR
GEOL 1101 Physical Geology 3 cr
GEOL 1101* Physical Geology for Scientists Lab 1 cr
GEOL 2202 Historical Geology 3 cr
GEOL 2210 Earth in Space and Time 3 cr
GEOL 3313** Earth Materials I 3 cr
GEOL 3315 Evolution of the Earth's Surface 3 cr
GEOL 4400 Geology Teaching Practicum 1 cr
GEOL/PHYS 4410 Science in American Society 2 cr

Plus electives from the following, to reach a total of at least 22 credits:
GEOL 4416 Global Environmental Change 3 cr
GEOL 4422 Planetary Geology for Teachers 3 cr
GEOL 4456 Geology of Southern Idaho 2 cr
GEOL 4458 Geology of North America 3 cr
GEOL/HIST/POLS 4471 Historical Geography of Idaho 4 cr
GEOL 4491 Seminar 1 cr
Other geoscience electives may be approved by advisor
*Note: Candidates must take GEOL 1110 even if they have taken the lab for GEOL 1100 or GEOL 1101 (GEOL 1100L or GEOL 1101L). **(PREREQ or COREQ is CHEM 1111)

German Major
GERM 3301-3302 German Conversation and Composition 6 cr and their prerequisites or equivalent high school courses.
LANG 4437 The Teaching of Foreign Languages 3 cr
Upper division electives in German 12 cr
(must be approved by the Department of Languages and Literatures and the College of Education).

German Minor
GERM 2201,2202 Intermediate German 8 cr (or equivalent)
LANG 4437 The Teaching of Foreign Languages 3 cr
Approved electives in German 12 cr
(must be approved by the Department of Languages and Literatures and the 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 2 cr
HE 2221 Introduction to Health Education 3 cr
HE 3340, 3340L Fitness and Wellness Programs, and Lab 3 cr
HE 3342 Stress and Emotional Health 3 cr
HE 4410 Behavior Change Theory and Application 3 cr
HE 4420 Health Program Planning and Implementation 3 cr
HE 4435 Health Program Evaluation and Research 3 cr

Plus the following School Health Emphasis Courses:
HE 4430 Curriculum and Methods in Health Education 3 cr
HE 4442 Environmental Health and Health Education 3 cr
HE 4443 Substance Abuse and Health Education 3 cr
HE 4445 Human Sexuality and Health Education 3 cr
TOTAL: 33 cr

Health Education Teaching Minor

Prerequisites:
Admission to Teacher Education Program
Admission to Health Education Program

Required Courses:
HE 2200 Promoting Wellness 3 cr
HE 2221 Introduction to Health Education 3 cr
HE 3340, 3340L Fitness/Wellness Programs, and Lab 3 cr
HE 3342 Stress and Emotional Health 3 cr
HE 4430 Curriculum and Methods in Health Education 3 cr
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 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, no more than 3 of which must be in HIST 1101 or HIST 1102)

HIST 1101 Foundations of Europe 3 cr
HIST 1102 Modern Europe 3 cr
HIST 2249 World Regional Geography 3 cr
HIST 2251 Latin America 3 cr
HIST 2252 East Asian History 3 cr
HIST 2254 Middle Eastern History 3 cr
HIST 2255 African History and Culture 3 cr

Category II: Research Skills (6 credits)
Candidates must take both of the following courses sequentially.

HIST 2291 The Historian’s Craft 3 cr
HIST 4491 Seminar 3 cr

Category III: Courses for Teachers

HIST 4418 United States History for Teachers 3 cr

Plus ONE of the following:

HIST 3307 Early North America 3 cr
HIST 3308 Industrialization and Reform in the U.S. 3 cr
HIST 3309 Modern United States 3 cr

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: 3 credits

Choose one course 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.

Mass Communication Minor

ENGL 4433 Methods: Teaching English (highly recommended) 3 cr
MC 1119 Introduction to Mass Media 3 cr
MC 1121 Reporting and Newspapers 4 cr
MC 2230, 2230L Introduction to Photography, and Lab 3 cr
MC 3325 Editing for Print Media 4 cr

Approved electives selected from:

MC 2270 Journalism History 3 cr
MC 2290 American Broadcasting 3 cr
MC 3350 Cable Television and New Media Technology 3 cr
MC 4440 Media Law and Ethics 3 cr
MC 4452 Mass Communication and Society 3 cr

Mathematics Major

CS/ENGR 1181 Computer Science and Programming I 3 cr
MATH 1170 Calculus I 4 cr
MATH 1175 Calculus II 4 cr
MATH 2240 Linear Algebra 3 cr
MATH 2275 Calculus III 4 cr
MATH 2287 Foundations of Mathematics 3 cr
MATH 3326 Elementary Analysis 3 cr
MATH 3334 Modern Geometry I 3 cr
MATH 3352 Introduction to Probability 3 cr

And one of the following:

MATH 3327 Vector Analysis 3 cr
MATH 4408 Modern Algebra II 3 cr
MATH 4444 Modern Geometry II 3 cr

History Minor

Category I: World Regions: 6 credits, one course of which must be HIST 1101 or HIST 1102

HIST 1101 Foundations of Europe 3 cr
HIST 1102 Modern Europe 3 cr
HIST 2251 Latin America 3 cr
HIST 2252 East Asian History 3 cr
HIST 2254 Middle Eastern History 3 cr
HIST 2255 African History and Culture 3 cr

Category II: Research Skills (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: 3 credits

Choose one course 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.

Music Education

See Bachelor of Music Education degree program (K-12 certification) for requirements.

Mathematics Minor

CS/ENGR 1181 Computer Science and Programming I 3 cr
MATH 1170 Calculus I 4 cr
MATH 1175 Calculus II 4 cr
MATH 2240 Linear Algebra 3 cr
MATH 2275 Calculus III 3 cr
MATH 2287 Foundations of Mathematics 3 cr
MATH 3343 Modern Geometry I 3 cr
MATH 3352 Introduction to Probability 3 cr

And one of the following:

MATH 3326 Elementary Analysis 3 cr
MATH 4407 Modern Algebra I 3 cr
MATH 4444 Modern Geometry II 3 cr

Physics Major

PHYS 1152-1153 Descriptive Astronomy and Laboratory 4 cr
PHYS 2211-2212* Engineering Physics 8 cr
PHYS 2213-2214 Engineering Physics Lab 2 cr
PHYS 3301** Modern Physics 3 cr
PHYS 4400 Practicum in Physical Science 2 cr
PHYS 4405 Advanced Modern Physics 3 cr
PHYS/GEOL 4410 Science in American Society 2 cr

Approved electives in Physics 8 cr
* Calculus is required for PHYS 2211-2212.
** MATH 3560 is required for PHYS 3301

Physics Minor

PHYS 1152-1153 Descriptive Astronomy and Laboratory 4 cr
PHYS 2211-2212* Engineering Physics 8 cr
PHYS 2213-2214 Engineering Physics Lab 2 cr
All candidates must take the following required courses:

- EDUC 3336 Social Science Methods 3 cr
- PSYC 1101 Introduction to General Psychology 3 cr

Plus ONE of the following courses:

- PSYC 3310 Applied Techniques 3 cr
- SOC/SOWK 3308 Sociological Methods and Social Work Research 3 cr
- SOC 3309 Social Statistics 3 cr

An additional twelve credits are required from THREE of the following fields, chosen from the remaining fields BEYOND the one chosen from the list above as an additional major or minor:

### Economics:

- ECON 2201 Principles of Macroeconomics 3 cr
- ECON 2202 Principles of Microeconomics 3 cr
- Plus six (6) additional credits from any upper-division courses in Economics as listed in the Arts and Letters section of this catalog.

### Geography:

- GEOL 1100, 1100L The Dynamic Earth, and Lab 4 cr
- HIST 2249 World Regional Geography 3 cr
- Plus two of the following geography courses to complete the Geography field:
  - GEOL 4403 Principles of GIS 3 cr
  - GEOL/HIST/POLS 4471 Historical Geography of Idaho 3 cr
- HIST 4489 GIS for Social Sciences 3 cr
- HIST 4490/4490L Cartography, and Lab 4 cr

### History:

Select two history courses from the following list:

- HIST 1101 Foundations of Europe 3 cr
- HIST 1102 Modern Europe 3 cr
- HIST 2251 Latin America 3 cr
- HIST 2252 East Asian History 3 cr
- HIST 2254 Middle Eastern Civilization 3 cr
- HIST 2255 African History and Culture 3 cr

Plus select two additional history courses from the following list:

- HIST 3307 Early North America 3 cr
- HIST 3308 Industrialization and Reform 3 cr
- HIST 3309 Modern United States 3 cr
- HIST 4418 U.S. History for Teachers 3 cr

### Political Science:

- POLS 1101 Introduction to American Government 3 cr
- POLS 2221 Introduction to International Relations 3 cr

Plus select two additional political science courses from the following list:

- POLS 3308 State and Local Government 3 cr
- POLS 3313 Introduction to Political Philosophy 3 cr
- POLS 3331 Comparative Politics 3 cr
- POLS 3326 Recent American Foreign Policy 3 cr
- POLS 4401 Political Parties and Interest Groups 3 cr
- POLS 4403 The Presidency 3 cr
- POLS 4404 The Legislative Process 3 cr
- POLS 4411 American Political Theory 3 cr
- POLS 4443 Constitutional Law 3 cr
- POLS 4455 Environmental Politics and Policy 3 cr

## Sociology Major

- SOC 1101 Introduction to Sociology 3 cr
- SOC 1102 Social Problems 3 cr
- SOC/SOWK 3308 Sociological Methods and Social Work Research 3 cr
- SOC 2221 Juvenile Delinquency 3 cr
- SOC 2248 Critical Analysis of Social Diversity 3 cr
- SOC 3301 Classical Social Theory 3 cr
- SOC 4462 Power, Class, and Prestige 3 cr

## Electives selected from:

- SOC 3309 Social Statistics 3 cr
- SOC 3321 Families and American Society 3 cr
- SOC 3335 Demography and Human Ecology 3 cr
- SOC 4403 Contemporary Sociological Theory 3 cr
- SOC 4408 Advanced Sociological Methods 3 cr
- SOC 4413 Mind, Body and Society 3 cr
- SOC 4431 Criminology 3 cr
- SOC 4450 Developing Societies 3 cr

## Sociology Minor

- SOC 1101 Introduction to Sociology 3 cr
- SOC 1102 Social Problems 3 cr
- SOC/SOWK 3308 Sociological Methods and Social Work Research 3 cr
- SOC 3301 Classical Social Theory 3 cr

## Electives selected from:

- SOC 2231 Juvenile Delinquency 3 cr
- SOC 2248 Critical Analysis of Social Diversity 3 cr
- SOC 3309 Social Statistics 3 cr
- SOC 3321 Families and American Society 3 cr
- SOC 3335 Demography and Human Ecology 3 cr
- SOC 4403 Contemporary Sociological Theory 3 cr
- SOC 4408 Advanced Sociological Methods 3 cr
- SOC 4413 Mind, Body and Society 3 cr
- SOC 4431 Criminology 3 cr
- SOC 4450 Developing Societies 3 cr
- SOC 4462 Power, Class, and Prestige 3 cr

## Spanish Major

- SPAN 3301-3302 Spanish Conversation and Composition 6 cr
- and their prerequisites or equivalent high school courses

## Spanish Minor

- SPAN 3301-3302 Spanish Conversation and Composition 6 cr
- and their prerequisites or equivalent high school courses

- LANG 4437 The Teaching of Foreign Languages 3 cr
- (must be approved by the Department of Languages and Literatures and the College of Education).

## 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.
Theatre Major

COMM 2208 Group Communication 3 cr
COMM 3305 Argumentation and Debate 3 cr
THEA 1101 Appreciation of Drama 3 cr
THEA 1111 Stagecraft 3 cr
THEA 1191 Theatre Production AND/OR
THEA 3391 Theatre Production 2 cr
THEA 2251 Beginning Acting 3 cr
THEA 2252 Intermediate Acting 3 cr
THEA 3331 Materials and Methods for High School Speech Arts 3 cr
THEA 4455 Beginning Stage Direction 3 cr

Choose ONE of the following:
THEA 2214 Makeup 2 cr
THEA 2221 Stage Costume Construction 3 cr
THEA 3304 Theatre Management 2 cr

Choose ONE of the following:
THEA 4400 Theatre Backgrounds I 3 cr
THEA 4401 Theatre Backgrounds II 3 cr
THEA 4419 Modern European Theatre 3 cr
THEA 4420 American Theatre History 3 cr
THEA 4470 Contemporary Theatre 3 cr

Theatre Minor

THEA 1101 Appreciation of Drama 3 cr
THEA 1111 Stagecraft 3 cr
THEA 2251 Beginning Acting 3 cr
THEA 2252 Intermediate Acting 3 cr
THEA 1191 Theatre Production AND/OR
THEA 3391 Theatre Production 2 cr
THEA 4455 Beginning Stage Direction 3 cr

Choose ONE of the following:
THEA 2214 Makeup 2 cr
THEA 2221 Stage Costume Construction 3 cr
THEA 3304 Theatre Management 2 cr

Choose ONE of the following:
THEA 4400 Theatre Backgrounds I 3 cr
THEA 4401 Theatre Backgrounds II 3 cr
THEA 4419 Modern European Theatre 3 cr
THEA 4420 American Theatre History 3 cr
THEA 4470 Contemporary Theatre 3 cr

Single Subject Teaching Majors

Art

ART 1100 Survey of Art 3 cr
ART 1101-1102 History of Western Art I & II 6 cr
ART 1103-1104 Creative Process 6 cr
ART 1105 Drawing I 3 cr
ART 3334 Secondary School Art Methods 3 cr
Approved electives in Art 24 cr

Biological Sciences

MATH 1160 Calculus 3 cr
OR
MATH 1153 Introduction to Statistics 3 cr
BIOL 1101, 1101L Biology I, and Lab 4 cr
BIOL 1102, 1102L Biology II and Lab 4 cr
BIOL 2206, 2207 Cell Biology, and Lab 4 cr
BIOL 2209, 2209L General Ecology, and Lab 4 cr
BIOL 2221, 2221L Introduction to Microbiology, and Lab 4 cr

BIOL 3358 Genetics 3 cr
BIOL 4413 Biology Teaching Methods 3 cr
BIOL 4417 Organic Evolution 3 cr
BIOL 4491, 4492 Seminars 2 cr
Approved electives in Biology (3-4 cr. plant/botany course required)** 14 cr
** BIOL 2206, 2207 have a prerequisite of CHEM 1112, 1112L General Chemistry I and Lab, 4 credits.

Approved electives are listed in the Biological Sciences section of the College of Science and Engineering.

Business Education

ACCT 2201 Principles of Accounting I 3 cr
BED 1102 Intermediate Keyboarding in Business Education 3 cr
BED 3320 Clerical Procedures 2 cr
BED 3330 Advanced Technology in Business Education 3 cr
BED 3332 Methods in Business Education 3 cr
CFS 4470 Consumer Economics 3 cr
ECON 2201 Principles of Microeconomics 3 cr
ECON 2202 Principles of Microeconomics 3 cr
MGT 2261 Legal Environment of Organizations 3 cr
HRD 4401 Foundations of Occupational Education 3 cr
HRD 4444 Career Guidance and Special Needs in Professional-Technical Education 3 cr
HRD 4468 Teaching Cooperative Education and School-to-Work 3 cr

Plus two elective courses approved by advisor 6 cr

Chemistry

CHEM 1111, 1111L General Chemistry I, and Lab 5 cr
CHEM 1112, 1112L General Chemistry II, and Lab 4 cr
CHEM 2211 Inorganic Chemistry I 2 cr
CHEM 2232 Quantitative Analysis 2 cr
CHEM 2234 Quantitative Analysis Lab 2 cr
CHEM 3301 Organic Chemistry I 3 cr
CHEM 3302, 3304 Organic Chemistry II, and Lab 4 cr
CHEM 3331 Instrumental Analysis 2 cr
CHEM 3334 Instrumental Analysis Lab 2 cr
CHEM 3341 Topics in Physical Chemistry I 3 cr
CHEM 3342 Topics in Physical Chemistry II 3 cr
CHEM 4400 Practice in Physical Science 2 cr
Approved electives in Chemistry 7 cr

Communication and Rhetorical Studies

MC 1119 Introduction to Mass Media 3 cr
COMM 2208 Group Communication 3 cr
COMM 3305 Argumentation and Debate 3 cr
COMM 3355 Nonverbal Communication 3 cr
COMM 4437 Rhetorical Theory 3 cr
COMM 4441 Interpersonal Communication 3 cr
THEA 1111 Stagecraft I 3 cr
THEA 1118 Oral Interpretation 3 cr
THEA 2251 Beginning Acting 3 cr
THEA 3331 Materials and Methods for High School Speech Arts 3 cr
Electives in 4000-level Communication and Rhetorical Studies courses 9 cr

Electives (4 credits) selected from:
THEA 2209 Stage Lighting 2 cr
THEA 2214 Makeup 2 cr
THEA 2221 Stage Costume Construction 3 cr
THEA 3304 Theatre Management 2 cr

English

ENGL 2211 Introduction to Literary Analysis 3 cr
ENGL 2277 or 2278 Survey of American Literature I or II 3 cr
ENGL 2267 or 2268 Survey of British Literature I or II 3 cr
ENGL 2281 Introduction to Language and Literature 3 cr
ENGL 3311 Writing and Research 3 cr
ENGL 4433* Methods: Teaching English 3 cr
ENGL 4491 Senior Seminar in Literature 3 cr

One of the following:
ENGL 4472 Proseminar in a Major Literary Figure 3 cr
ENGL 4473 Chaucer 3 cr
ENGL 4474 Milton 3 cr
ENGL 4476 Shakespeare 3 cr

One of the following:
ENGL 4481 Studies in Grammar 3 cr
ENGL 4484 Rotating Topics in Linguistics 3 cr
ENGL 4486 Old English 3 cr

Plus one additional course from the following:
ENGL 2257 or 2258 Survey of World Literature I or II 3 cr
ENGL 2267 or 2268 Survey of British Literature I or II 3 cr
ENGL 2277 or 2278 Survey of American Literature I or II 3 cr

One genre course (3 cr):
Two additional upper-division historical period courses 6 cr

Approved electives
(excluding lower division composition courses) 6 cr
* ENGL 4433 must be completed before Student Teaching Internship.

Family and Consumer Sciences Education

CFS 1100 Child and Family Studies 3 cr
CFS 2209 Early Childhood Environment 3 cr
CFS 2229 Textile Products 3 cr
CFS 3314 Interior Design and Housing Perspectives 3 cr
CFS 3332 Programs in Family and Consumer Sciences 3 cr
CFS 4429 Social and Psychological Aspects of Clothing 3 cr
CFS 4431 Family Resource Management 3 cr
CFS 4435 Relationships 3 cr
CFS 4470 Consumer Economics 3 cr
NCT 1104 Foods 3 cr
NCT 1139 Consumer Nutrition 3 cr
NCT 2204 Meal Management 2 cr
HRD 4401 Foundations of Professional-Technical Education 3 cr
TOTAL: 36 cr

Professional Education Core

EDUC 2202 Development and Individual Differences 3 cr
EDUC 2204 Families, Communities, Culture 3 cr
EDUC 2215 Preparing to Teach with Technology 3 cr
EDUC 3301 Inquiring, Thinking, Knowing 3 cr
EDUC 3302 Motivation and Management 3 cr
EDUC 3309 Instructional Planning, Delivery and Assessment 6 cr
EDUC 3311 Instructional Technology 3 cr
EDUC 4401 Content Area Literacy 3 cr
EDUC 4406 Secondary Education Student Teaching Internship 7-14 cr
SPED 3350 Creating Inclusive Classrooms 3 cr
Recommended Electives

CFS 4471 Advanced Consumer Economics 3 cr
CFS 4472 Teaching Consumer Economics 1-3 cr
CFS 4494 Partnerships with Professionals 3 or 6 cr
ECON 2201 Principles of Macroeconomics 3 cr
ECON 2202 Principles of Microeconomics 3 cr
HRD 4402 Course Construction 3 cr
HRD 4403 Methods of Teaching 3 cr
HRD 4405 Professional-Technical Education 3 cr
HRD 4406 Professional Readings 1-3 cr
HRD 4444 Guidance and Special Needs in Professional-Technical Education 3 cr
HE 3329 Nutrition 3 cr
HE 3312, 3312L Quantity Foods, and Lab 3 cr
HE 3360 Nutrition Through the Life Cycle 3 cr
HE 4439 Sports Nutrition 3 cr

Geology (at least 45 cr)

Required Courses:

GEOL 1100,1100L The Dynamic Earth, and Lab 4 cr
OR
GEOL 1101 Physical Geology 3 cr
GEOL 1110* Physical Geology for Scientists Lab 1 cr
GEOL 2202 Historical Geology 3 cr
GEOL 2210 Earth in Space and Time 3 cr
GEOL 3313 Earth Materials I 3 cr
GEOL 3315 Evolution of Earth’s Surface 4 cr
GEOL 4400 Practical in Geology Teaching 1 cr
GEOL 4406 Environmental Geology 3 cr
GEOL/PHYS 4410 Science in American Society 2 cr
GEOL 4421 Structural Geology 4 cr
GEOL 4431 Geobiology and the History of Life 4 cr
GEOL 4452 Sedimentation Stratigraphy 4 cr
GEOL/HIST/POLS 4471 Historical Geography of Idaho 4 cr

Plus electives from the following to reach a total of at least 45 credits:

GEOL 3314 Earth Materials II 3 cr
GEOL 4403 Principles of GIS 3 cr
GEOL 4405 Volcanology 3 cr
GEOL 4407 GPS Applications in Research 3 cr
GEOL 4409 Remote Sensing 3 cr
GEOL 4416 Global Environmental Change 3 cr
GEOL 4420 Principles of Geochemistry 3 cr
GEOL 4422 Planetary Geology for Teachers 3 cr
GEOL 4430 Principles of Hydrogeology 3 cr
GEOL 4450 Field Geology 6 cr
GEOL 4456 Geology of Southern Idaho 2 cr
GEOL 4458 Geology of North America 3 cr
GEOL 4491 Seminar 1 cr

Other geology electives may be approved by advisor

* Note: Candidates must take GEOL 1110 even if they have taken the lab for GEOL 1100 or GEOL 1101 (GEOL 1100L or GEOL 1101L).

** (PREREQ or COREQ: CHYM 1111)

Health Education

Prerequisites:
Admission to Teacher Education Program
Admission to Health Education Program

Required Courses:

HE 2200 Promoting Wellness 3 cr
HE 2221 Introduction to Health Education 3 cr
HE 3340, 3340L Fitness and Wellness Programs, and Lab 3 cr
HE 3342 Stress and Emotional Health 3 cr
HE 3383 Epidemiology 3 cr
HE 4410 Behavior Change Theory and Applications 3 cr
HE 4420 Program Planning and Implementation 3 cr
HE 4430 Curriculum and Methods in Health Education 3 cr
HE 4432 Community and Public Health 2 cr
HE 4435 Health Program Evaluation and Research 3 cr
HE 4442 Environmental Health and Health Education 3 cr
HE 4443 Substance Abuse and Health Education 3 cr
HE 4445 Human Sexuality and Health Education 3 cr
HE 4473 Marketing for Health Care 3 cr
Approved Electives 3 cr

TOTAL: 45 cr

Mathematics

C S 1181 Introduction to Computer Science and Programming I 3 cr
MATH 1170 Calculus I 4 cr
MATH 1175 Calculus II 4 cr
MATH 2240 Linear Algebra 3 cr
MATH 2275 Calculus III 4 cr
MATH 2287 Foundations of Mathematics 3 cr
MATH 3326 Elementary Analysis 3 cr
MATH 3343 Modern Geometry I 3 cr
MATH 3352 Introduction to Probability 3 cr
MATH 4407 Modern Algebra I 3 cr
MATH 4408 Modern Algebra II 3 cr

Approved upper division mathematics electives including at least 3 credits at the 4000-level 9 cr

Music Education

See Bachelor of Music Education degree (below).

Physical Education

PE 2222 First Aid, CPR and Sport Safety 3 cr
PE 2223 Foundations of Physical Education and Sport 3 cr
PE 2235 Activity Performance Techniques I 3 cr
PE 2236 Activity Performance Techniques II 3 cr
PE 2237 Activity Performance Techniques III 3 cr
PE 2243 Anatomical Foundations of Human Activity 3 cr
PE 2281 Practical Outdoor Skills 1 cr
PE 3300 Movement Theory and Motor Development 3 cr
PE 3301, 3301L Physiology of Exercise, and Lab 4 cr
PE 3302, 3302L Biomechanics, and Lab 4 cr
PE 3322 Introduction to Sport Psychology 3 cr
PE 3336 Methods of Teaching Elementary Physical Education 3 cr
PE 3362 Tests and Measurements in Physical Education 3 cr
PE 3364 Introduction to Sport Law 3 cr
PE 3370 Care and Prevention of Athletic Injuries 3 cr
PE 4437 Methods of Teaching Secondary Physical Education 3 cr
PE 4475 Organization and Administration of Physical Education and Sport 3 cr
PE 4494 Adapted Physical Activity 3 cr
PE 4495 Aquatics (consult with advisor) 1 cr

TOTAL: 53 cr

IN ADDITION: Candidate must present a current Red Cross First Aid and CPR Card to advisor at the time of graduation.

Theater

COMM 2208 Group Communication 3 cr
COMM 3305 Argumentation and Debate 3 cr
THEA 1101 Appreciation of Drama 3 cr
THEA 1111 Stagecraft 3 cr
THEA 1191 Theatre Production AND/OR
THEA 3391 Theatre Production, to total 2 cr
THEA 2211 Drafting 3 cr
THEA 2214 Makeup 2 cr
THEA 2221 Stage Costume Construction 3 cr
THEA 2251 Beginning Acting 3 cr
THEA 2252 Intermediate Acting 3 cr
THEA 3304 Theatre Management 2 cr
THEA 3311 Introduction to Scene Design 3 cr
THEA 3312 Stage Lighting Design 3 cr
THEA 4403 Stage Costume Design 3 cr
THEA 3331 Materials and Methods for High School Speech Arts 3 cr
THEA 4455 Beginning Stage Direction 3 cr

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 music program, applied music, course sequencing, senior recital, large and small ensemble requirements, and other departmental policies may be found in the Music Department Student/Faculty Handbook, available upon request from the chair of the Music Department. Candidates should request advisors in the Music Department and in the College of Education.

Candidates must complete requirements and be fully admitted to teacher education before they can take courses in professional education numbered 3000 and above.

Candidates seeking the Bachelor of Music Education degree must complete all of the General Education Objectives (a minimum of 36 credits).

Professional Education Requirement

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

The College of Education offers professional undergraduate and graduate courses in the principles and practices of education. In courses at the undergraduate level the aim is to provide a broad background for prospective teachers by developing knowledge, skills, and dispositions that will be useful in teaching. Graduate level courses aim to prepare effective specialists in the field of education.

Candidates are advised to consult with their education advisors regarding course sequencing. Concurrent enrollment in some methodology courses is restricted. Admission to teacher education is required for enrollment in all EDUC courses numbered 3000-level and above.

EDUC 1150 Educational Careers 1 credit.
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 credit.
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. Graded S/U. D

EDUC 2201 Development and Individual Differences 3 credits.
Examination of human development and 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. F, S, Su

EDUC 2204 Families, Communities, Culture 3 credits.
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 Requirements. F, S, Su

EDUC 2210 Peer Tutor Training 1 credit.
Introduction to individual and small group tutoring with adult students. Emphasis on teaching strategies, communication skills, ethics, and learning styles. Graded S/U. D

EDUC 2225 Introduction to Elementary Art 1 credit.
Practical work in all art media and materials. Field experience required. PRE-REQ: Admission to Teacher Education Program. F, S

EDUC 2226 Art Survey 3 credits.
Study of the subject matter of elementary art programs. Emphasis on teaching methods and materials. Field experience required. PRE-REQ: MATH 2256, MATH 2257, and admission to Teacher Education Program. F, S

EDUC 2234 Social Science Methods 3 credits.
Study of subject matter of elementary science programs. Emphasis on teaching methods and materials. Field experience required. PRE-REQ: General Education Objective 5, and admission to Teacher Education Program. F, S

EDUC 2235 Social Science Methods 3 credits.
Study of subject matter of elementary science programs. Emphasis on teaching methods and materials. Field experience required. PRE-REQ: MATH 2256, MATH 2257, and admission to Teacher Education Program. F, S
EDUC 4419 Developmental Literacy 3 credits.
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 credits. Advanced training in developmental, remedial reading emphasizing independent strategies in study skills, critical/creative reading, metacognition. Content area application. PREREQ: Teaching experience or permission of instructor. D

EDUC 4424 Assessing Literacy Abilities 3 credits. 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 credits. 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 credits. 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 credits. 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 credit. Field experience in settings with English-as-a-second-language learners. COREQ: EDUC 4463 or permission of instructor. AS

EDUC 4470 Manipulative Mathematics 3 credits. 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 credits. 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 credits. 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 credits. Examination and analysis of contemporary issues and trends in theories and practices in education. D

EDUC 4482 Contemporary Issues in Education 1-3 credits. Examination and analysis of contemporary issues and trends in theories and practices in education. D

EDUC 4483 Instructional Improvement for Teachers 1-3 credits. 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 credits. 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 credits. 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 credits. Candidates assume instructional and management responsibilities in a supervised secondary school music setting. Includes weekly professional development seminar. PREREQ: Admission to Teacher Education Program, MUSC 3336, and/or approved application. Graded S/U. F, S

EDUC 4494 Elementary Education: Student Teaching Internship 7-14 credits. Candidates assume instructional and management responsibilities in supervised primary/elementary setting. Includes weekly professional development seminar. 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 credits. Candidates assume instructional and management responsibilities in supervised middle/junior high school setting. Includes weekly professional development seminar. PREREQ: Admission to Teacher Education Program and/or approved application. Graded S/U. F, S

EDUC 4496 Secondary Education: Student Teaching Internship 7-14 credits. 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 credits. 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 programs. Graded S/U. D
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.

Admission Requirements
Prior to acceptance to the B.A./B.S. in Special Education/Human Exceptionality 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 2.75, 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.)

Bachelor of Arts or Bachelor of Science in Human Exceptionality
The Bachelor of Arts or Bachelor of Science in Human Exceptionality can be completed either as a nonteaching 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 nonteaching majors. For candidates in the nonteaching major, practica are arranged in non-school settings.

Course Requirements for the B.A. or B.S. degree (in addition to University requirements):
- EDUC 2201 Development and Individual Difference 3 cr
- EDUC 2204 Families, Communities, Culture 3 cr
- EDUC 3322 Literature for Children 3 cr
- PE 3300 Across the Curriculum 3 cr
- Movement Theory 3 cr
- Motor Development 3 cr
- OR
- PE 4494 Adapted Physical Activity 3 cr
- SPED 3312 Assistive Technology 3 cr
- SPED 3330 The Exceptional Child Principles of Behavior Management 3 cr
- SPED 4423 Designing Instruction 3 cr
- SPED 4424 Assessment Procedures in Special Education 3 cr
- SPED 4429 Strategies: Severe Disabilities 3 cr
- SPED 4430 Practicum in Individualized Instruction 3 cr
- Direct Instruction Systems 3 cr
- SPED 4432 Language and Communication Methods in Special Education 3 cr
- SPED 4435 Practicum in Small Group Instruction 3 cr
- SPED 4436 Practicum for Children with Disabilities 3 cr
- SPED 4437 Practicum in Large Group Instruction 3 cr
- SPED 4438 Policies and Procedures in Special Education 3 cr
- SPED 4443 Autism 3 cr
- SPED 4446 Secondary Special Education 3 cr
- SPED 4490 Consultation and Collaboration 3 cr
- SPED 4495 Student Teaching Internship 14 cr

*This is a 7-14 credit course taken for a total of 14 credits

Approved Electives (choose 9 credits)
- EDUC 2215 Preparing to Teach with Technology 3 cr
- SPED 4426 Assessment: Severe Disabilities 3 cr
- SPED 4433 The Emotionally Disturbed Child 2 cr
- SPED 4462 Seminar: Behavior Disorders 1 cr
- SPED 4480 Seminar in Special Education (to be taken twice) 2 cr
- SPED 4481 Advanced Issues in Behavior Disorder 2 cr
- SPED 4485 Independent Problems 1-3 cr
- SPED 4498 Advanced Field Work 1-3 cr
- CSED 2205 Introduction to Communication Disorders 3 cr
- CSED 2227 Basic Sign I 2 cr
- CSED 2228 Basic Sign II 2 cr
- EDUC 3335 Elementary School Art: Methods and Materials 2 cr
- EDUC 4460 Foundations of ESL 3 cr
- EDUC 4463 ESL Methods 3 cr
- EDUC 4464 ESL Practicum 1 cr
- EDUC 4471 Interpersonal Communications 2 cr
- HE 2211 Health Education
- MUSC 2333 Music Methods for Elementary School Teachers 2 cr
- PE 3337 Methods for Teaching Elementary Physical Education 3 cr
- PSYC 2225 Child Development 3 cr
- PSYC 3332 Psychology of Adolescence 3 cr
- PSYC 4445 Psychology of Learning 3 cr
- SOC 2231 Juvenile Delinquency 3 cr

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.

Minor in Deaf Education*

Bachelor of Arts or Bachelor of Science in Human Exceptionality

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Minor in Deaf Education*

Bachelor of Arts or Bachelor of Science in Human Exceptionality
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 credits. Essential areas of exceptionality. Each area is studied on the dimensions of etiology, identification and labeling, characteristics, educational treatment, and prognosis for adjustment. Consideration is also given to 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 credits. Overview of basic principles of applied behavior analysis as it relates to educating children with disabilities. S

SPED 3350 Creating Inclusive Classrooms 3 credits. 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 the Teacher Education Program. F, S

SPED 4423 Designing Instruction 3 credits. 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. PREREQ: Admission to the Teacher Education Program. COREQ: SPED 4437. F

SPED 4424 Assessment Procedures in Special Education 3 credits. 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 credits. 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 credits. Consideration and evaluation of curriculum materials from behavioral, developmental, and ecological perspectives. Emphasizes functional approach to development and implementation of individualized intervention plans. PREREQ: Admission to the Teacher Education Program. COREQ: SPED 4430 and SPED 4434. F

SPED 4430 Practicum in Individualized Instruction 3 credits. 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 credits. 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. PREREQ: Admission to the Teacher Education Program. COREQ: SPED 4435. S

SPED 4433 The Emotionally Disturbed Child 2 credits. 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 credits. 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 3 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 the Teacher Education Program. S

SPED 4462 Seminar: Behavior Disorders 1 credit. Topics include 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 credit. 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 credits. Educational organization, collaboration and consultation skills necessary to provide cooperation between the schools and other community agencies that provide integration for this exceptionality. PREREQ: Admission to the Teacher Education Program. D

SPED 4485 Independent Problems 1-3 credits. 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 credits. 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 credits. Critical analysis of the literature in one or more areas of education. Limited enrollment. PREREQ: Admission to the Teacher Education Program. May be graded S/U. D

SPED 4495 Special Education: Student Teaching Internship 7-14 credits. 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. PREREQ: Special Education Methods Core and approved application. F, S

SPED 4498 Advanced Field Work 1-3 credits. 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

Chair and Associate Professor: Appleby
Professors: Lester, Lyons
Associate Professor: Fitzpatrick
Assistant Professors: Fauré, Gauthier
Associate Lecturers: Cordingley, Richardson
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 a Master of Physical Education degree with an emphasis in Athletic Administration. The program is designed to facilitate the intellectual and practical knowledge necessary to enter the field of sport management or administration upon graduation.

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).

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.

1. Completion of General Education Objectives 1 through 6.

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.

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 cr
- PE 2223 Foundations of Physical Education and Sport 3 cr
- PE 2243 Anatomical Foundations of Human Activity 3 cr
- PE 4454 Senior Capstone 3 cr

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 (39 credits)
(Note: PE 2243 requirement in SSPE Core is satisfied by BIOL 3301, 3302, and lab.)

- Biological Cognate: 8 credits
  - BIOL 3301, 3301L: Anatomy and Physiology, and Lab 4 cr
  - BIOL 3302, 3302L: Anatomy and Physiology, and Lab 4 cr

- Chemistry Cognate: 9 credits
  - CHEM 1111, 1111L: General Chemistry I, and Lab 5 cr
  - CHEM 1112, 1112L: General Chemistry II, and Lab 4 cr

- Physics Cognate: 8 credits
  - PHYS 1111: General Physics I 3 cr
  - PHYS 1112: General Physics II 3 cr
  - PHYS 1113: General Physics I Lab 1 cr
  - PHYS 1114: General Physics II Lab 1 cr

- Math Cognate: 11 credits
  - MATH 1143: College Algebra* 3 cr
  - MATH 1144: Trigonometry* 2 cr
  - MATH 1153: Introduction to Statistics 3 cr
  - MATH 1160: Applied Calculus 3 cr

  *(each of the 2 courses above satisfies General Education Objective 3)

- Psychology Cognate: 3 credits
  - PSYC 1101: Introduction to General Psychology 3 cr

(Objective #2: To develop specialized knowledge in human movement activities (14 credits)

- PE 3300: Movement Theory 3 cr
- PE 3301, 3301L: Physiology of Exercise, and Lab 4 cr
- PE 3302, 3302L: Biomechanics and Lab 4 cr
- PE 3322: Introduction to Sport Psychology 3 cr

Physical Education Teaching Emphasis (K-12 certification) – 44 credits, not including credits in Education and the Physical Education Core

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.

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 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.

- Objective #3: To develop skills assessing and analyzing human movement activities (12 credits)
  - PE 3370: Care and Prevention of Athletic Injuries 3 cr
  - PE 4482: Mechanical Analysis of Human Movement 3 cr
  - PE 4484: Exercise Assessment and Prescription 3 cr
  - PE 4490: Practicum in Exercise Science 3 cr

- Objective #4: To develop knowledge and skills in cognate exercise disciplines (12 credits)
  - NTD 2239: Nutrition 3 cr
  - Electives, chosen with advisor approval 9 cr

Recommended Electives:
- BIOL 4460: Neuroscience 4 cr
- HE 3340: Fitness and Wellness Programs 3 cr
- NTD 4439: Sports Nutrition 3 cr
- PE 4427: Personal Trainer Certification 3 cr
- PE 4494: Adapted Physical Activity 3 cr
- PSCI 2205: Drugs in Society 2 cr

Physical Education Teaching Emphasis (12 credits)

Objective #3: To develop skills assessing and analyzing human movement activities (12 credits)

- PE 3370: Care and Prevention of Athletic Injuries 3 cr
- PE 4482: Mechanical Analysis of Human Movement 3 cr
- PE 4484: Exercise Assessment and Prescription 3 cr
- PE 4490: Practicum in Exercise Science 3 cr

Objective #4: To develop knowledge and skills in cognate exercise disciplines (12 credits)

- NTD 2239: Nutrition 3 cr
- Electives, chosen with advisor approval 9 cr

Recommended Electives:
- BIOL 4460: Neuroscience 4 cr
- HE 3340: Fitness and Wellness Programs 3 cr
- NTD 4439: Sports Nutrition 3 cr
- PE 4427: Personal Trainer Certification 3 cr
- PE 4494: Adapted Physical Activity 3 cr
- PSCI 2205: Drugs in Society 2 cr

Core Component: 9 credits

- PE 2222: First Aid, CPR and Sport Safety 3 cr
- PE 2223: Foundations of Physical Education and Sport 3 cr
- PE 2243: Anatomical Foundations of Human Activity 3 cr

Objective #1: To develop teaching skills in a variety of areas in physical activities, athletics, and creative movement (20 credits)

Skills Component: 10 credits

- PE 2235: Activity Performance Techniques I 3 cr
- PE 2236: Activity Performance Techniques II 3 cr
- PE 2237: Activity Performance Techniques III 3 cr
- One (1) aquatics course 1 cr

Methods Component: 10 credits

- PE 2281: Practical Outdoor Skills 1 cr
- PE 3357: Methods of Teaching Elementary Physical Education 3 cr
- PE 3370: Care and Prevention of Athletic Injuries 3 cr
- PE 4437: Methods of Teaching Secondary Physical Education 3 cr

Objective #2: To acquire knowledge in the basic foundations of human activity (17 credits)

- PE 3300: Movement Theory and Motor Development 3 cr
- PE 3301, 3301L: Physiology of Exercise, and Lab 4 cr
- PE 3302, 3302L: Biomechanics, and Lab 4 cr
- PE 3322: Introduction to Sport Psychology 3 cr
- PE 4494: Adapted Physical Activity 3 cr

Objective #3: To understand and develop skills required for teaching physical education (9 credits)

- PE 3362: Tests and Measurements in Physical Education 3 cr
- PE 3364: Introduction to Sport Law 3 cr
- PE 4475: Organization and Administration of Physical Education and Sport 3 cr
Objective #4: To understand and develop general pedagogical skills and teacher effectiveness

Required Education Foundation Courses

Refer to College of Education Teacher Education Admission standards and Elementary and/or Secondary Teacher Education course Requirements earlier in this Catalog.

Outdoor Education Emphasis – 39 credits, plus Core

Objective #1: To explore the intellectual, historic and philosophic foundations of the field of physical education and movement science.

Physical Education Core Component (included in PE Core listed above): 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.

Objective #2: To develop leadership and teaching skills.

Criteria for courses: Courses that fulfill this objective (a) introduce the concepts of leadership in the outdoor environment, (b) explore the literature of the outdoor field, and (c) provide practical experience in leadership and teaching.

Leadership and Teaching Component (10 credits)

PE 3336  Outdoor Leadership 3 cr
PE 4440  Survey of Outdoor Education Literature 3 cr
PE 4445  Methods of Teaching Outdoor Activities and Practicum 3-4 cr

Objective #3: To conduct outdoor activities safely in the outdoors with minimal impact on the environment.

Criteria for courses: Courses that fulfill this objective (a) stress safe use of the outdoors, (b) provide the knowledge and experience to respond to outdoor emergencies, (c) examine ways in which impact on the environment can be minimized.

Outdoor Education Safety Component (7 credits)

Any of the following may be selected, but Outdoor Risk Management, Leave No Trace Trainer, and first aid certification (Wilderness First Aid, Wilderness First Responder or Emergency Medical Technician) are required.

PE 2271  Winter Survival Skills 1 cr
PE 2272  Wilderness Survival Skills 1 cr
PE 2282  Map, Compass and Backcountry Navigation 1 cr

PE 2283  Leave No Trace Trainer 1 cr
PE 2285  Wilderness First Aid 1 cr
PE 2286  Avalanche and Winter Sports Safety 1 cr
PE 3381  River Safety and Swiftwater Rescue 1 cr
PE 3383  Advanced Rock Climbing and Climbing Safety 2 cr
PE 3384  Outdoor Risk Management and Liability 2 cr
PE 4441  Wilderness First Responder Certification 3 cr

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.

Objective #4: To understand and interpret the natural environment.

Criteria for courses: Courses that fulfill this objective (a) provide a scientific foundation of the understanding of the outdoor world and natural systems; (b) develop knowledge and the requisite skills to identify plants, animals, rocks, minerals, landforms, and other natural objects.

Natural History Component (8 credits)

BIOL 1101, 1102L, Biology I, and Lab 4 cr
BIOL 1102, 1102L, Biology II, and Lab 4 cr
BIOL 2209  General Zoology 4 cr
BIOL 2213  Fall Flora 2 cr
BIOL 2214  Spring Flora 2 cr
BIOL 3337  Conservation of Natural Resources 3 cr
BIOL 4426  Herpetology 3 cr
BIOL 4427  Ichthyology 3 cr
BIOL 4438  Ornithology 3 cr
BIOL 4441  Mammalogy 3 cr
BIOL 4489  Field Ecology 3 cr
GEOL 1100, 1100L, The Dynamic Earth, and Lab 4 cr
GEOL 1109  Physical Geology for Scientists 3 cr
GEOL 1110  Physical Geology for Scientists Laboratory 1 cr
GEOL 2210  Earth in Space and Time 2 cr
GEOL 4456  Geology of Idaho 2 cr
GEOL 4491  Seminar 1 cr
PHYS 1152  Descriptive Astronomy 1 cr
PHYS 1153  Descriptive Astronomy Laboratory 1 cr
PHYS 3325  Introduction to Weather and Climate 3 cr

Objective #5: To cultivate and refine skills in a variety of outdoor activities.

Criteria for courses: Courses that fulfill this objective (a) emphasize an understanding of the techniques, equipment and safety procedures associated with specific outdoor activities, and (b) provide opportunities to learn, practice and refine outdoor skills.

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) PE credits can be counted towards graduation requirement)

PEAC 1101  Adaptive Snow Skiing 1 cr
PEAC 1108  Instructor Training of Adaptive Snowskiing 1 cr
PEAC 1163  Backpacking 1 cr
PEAC 1165  Backcountry GPS Navigation 1 cr
PEAC 1166  Canoeing 1 cr
PEAC 1167  Kayak Touring 1 cr
PEAC 1175A  Beginning Kayaking 1 cr
PEAC 1176A  Beginning Rock Climbing 1 cr
PEAC 1177A  Beginning 1 cr
PEAC 1178A  Cross-Country Skiing 1 cr
PEAC 1178B  Cross-Country Skiing 1 cr
PEAC 1181  Mountain Biking 1 cr
PEAC 1182C  Advanced Dutch Oven Cooking 1 cr
PEAC 1185  Basic Mountaineering 1 cr
PEAC 1186B  Intermediate Fly Fishing 1 cr
PEAC 1189  Beginning Gym Climbing 1 cr
PEAC 1191B  Intermediate Horsemanship 1 cr
PEAC 1194  Caving Workshop 1 cr
PE 2200  Team Building Leadership 2 cr
PE 2271  Winter Survival Skills 1 cr
PE 2272  Wilderness Survival Skills 1 cr
PE 2280  Winter Camping and Backcountry Travel 1 cr
PE 2281  Practical Outdoor Skills 1 cr
PE 2282  Map, Compass and Backcountry Navigation 1 cr
PE 2284  Intermediate Kayaking and Whitewater Safety 1 cr
PE 2286  Avalanche and Winter Sports Safety 1 cr
PE 2287  Snowboard Instructor Training 1 cr
PE 2288  Ski Instructor Training 1 cr
PE 3381  River Safety and Swiftwater Rescue 1 cr
PE 3383  Advanced Rock Climbing and Climbing Safety 2 cr
PE 4491  Physical Education Workshop* 1-3 cr
*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).

Objective #6: To foster a well-rounded educational background with an emphasis on subjects with historic and traditional importance in the outdoor education field.

Criteria for courses: Courses that fulfill this objective (a) emphasize the expression of ideas through the written and spoken word, (b) provide experience in creative processes, (c) explore environmental issues through the political process.

Electives (Minimum of 6 credits)

Courses may include those listed in the Natural History Component and/or the following:

ENGL 2206  Creative Writing Workshop 3 cr
ENGL 3307  Professional and Technical Writing 3 cr
ENGL 3308  Business Communications 3 cr
COMM 2201  Business and Professional Speaking 3 cr
COMM 2208  Group Communication 3 cr
MC 2230, 2230L  Introduction to Photography, and Lab 3 cr
MC 2241  Introduction to Public Relations 3 cr
MC 2260  Photo and Graphic Design 3 cr
Sport Management Emphasis – 43 credits, plus Core

Objective #1: To understand and appreciate the physical education and sport setting.
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. Thirteen (13) credits required.

Choose 2 of the following (6 credits):
PE 2235 Activity Performance Techniques I 3 cr
PE 2236 Activity Performance Techniques II 3 cr
PE 2237 Activity Performance Techniques III 3 cr

Additional Coursework (7 credits):
PE 2281 Practical Outdoor Skills 1 cr
PE 3322 Introduction to Sport Psychology 3 cr
Approved Electives 3 cr

Possible Elective Choices:
PE 3300 Movement Theory and Motor Development 3 cr
PE 3301, 3301L Physiology of Exercise, and Lab 4 cr
PE 3302, 3302L Biomechanics and Lab 4 cr
PE 3357 Methods of Teaching Elementary Physical Education 3 cr
PE 3362 Tests and Measurements in Physical Education 3 cr
PE 3370 Care and Prevention of Athletic Injuries 3 cr
PE 4437 Methods of Teaching Secondary Physical Education 3 cr
PE 4493 Introduction to Sport Sociology 3 cr
PE 4494 Adapted Physical Activity 3 cr

Objective #2: To develop leadership and management skills.
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. Twelve (12) credits required.

PE 3364 Introduction to Sport Law 3 cr
PE 4473 Facilities Planning and Design 3 cr
PE 4475 Organization and Administration of Physical Education and Sport 3 cr
Approved Electives 3 cr

Possible Elective Choices:
PE 3386 Outdoor Leadership 2 cr
POLS 4458 Public Administration Ethics 3 cr
COMM 2201 Business and Professional Speaking 3 cr
COMM 2208 Group Communication 3 cr
COMM 2254 Organizational Communication 3 cr
COMM 3355 Nonverbal Communication 3 cr
COMM 4408 Communication Theory 3 cr
COMM 4452 Conflict Management 3 cr
COMM 4454 Management Communication 3 cr

Objective #3: To understand and interpret the business setting.
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. Fifteen (15) credits required.

ACCT 3303 Accounting Concepts 3 cr
MGT 3312 Individual and Organizational Behavior 3 cr
MGT 4473 Human Resource Management 3 cr
MGT 4441 Organizational Behavior 3 cr
PE 3366 Sport Marketing 3 cr
Approved Electives 3 cr

Possible Elective Choices:
ACCT 2201 Principles of Accounting I 3 cr
ACCT 2202 Principles of Accounting II 3 cr
CIS 3300 Information Management Systems 3 cr
ECON 2201 Principles of Macroeconomics 3 cr
ECON 2202 Principles of Microeconomics 3 cr
FIN 3315 Corporate Financial Management 3 cr
MGT 2216 Business Statistics 3 cr
MGT 2217 Advanced Business Statistics 3 cr
MGT 2261 Legal Environment of Organizations 3 cr
MKTG 2225 Basic Marketing Management 3 cr
MKTG 4441 Organizational Behavior 3 cr
MKTG 3327 Consumer Behavior 3 cr
MC 2241 Introduction to Public Relations 3 cr
POLS 4409 Community and Regional Planning 3 cr
POLS 4441 Administrative Law 3 cr
POLS 4442 Constitutional Law 3 cr
POLS 4443 Constitutional Law 3 cr
POLS 4451 Organizational Theory and Bureaucratic Structure 3 cr
POLS 4452 Financial Administration and Budgeting 3 cr
POLS 4454 Public Personnel Administration 3 cr
POLS 4456 Labor Organization 3 cr
POLS 4457 Grantwriting 3 cr

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 24 credits—17 credits of required courses and 7 credits of elective courses.

Required Courses (17 credits):
PE 3301, 3301L Physiology of Exercise, and Lab 4 cr
PE 3302, 3302L Biomechanics, and Lab 4 cr
PE 3322 Introduction to Sport Psychology 3 cr
PE 3370 Care and Prevention of Athletic Injuries 3 cr
PE 4480 Coaching Problems 3 cr

Elective Courses (7 credits):
Select four (4) credits:
PE 3312 Practical Applications of Coaching Baseball/Softball 2 cr
PE 3313 Practical Applications of Coaching Basketball 2 cr
PE 3314 Practical Applications of Coaching Football 2 cr
PE 3315 Practical Applications of Coaching Soccer 2 cr
PE 3316 Practical Applications of Coaching Tennis 2 cr
PE 3317 Practical Applications of Coaching Track and Field 2 cr
PE 3318 Practical Applications of Coaching Volleyball 2 cr
PE 3319 Practical Applications of Coaching Wrestling 2 cr

Select three (3) credits:
PE 3300 Movement Theory and Motor Development 3 cr
PE 4475 Organization and Administration of Physical Education and Sport 3 cr
PE 4493 Introduction to Sport Sociology 3 cr

Minor in Outdoor Education

Outdoor Education Standards

The Outdoor Education minor is modeled around 4 goals that were developed after an extensive review of several other Outdoor Education program curricula.
The Association of Outdoor Recreation and Education (AORE) recommends that individual programs establish goals that are relevant to their specific programs. The four component areas in the Outdoor Education minor include Leadership and Teaching, Outdoor Education Safety, Natural History, and Experiential Skills.

Candidates seeking a minor in outdoor education must complete a total of 23 credits from the following four components:

**Leadership and Teaching Component**
- PE 3386 Outdoor Leadership 3 cr
- PE 4440 Survey of Outdoor Education Literature 3 cr
- PE 4445 Methods of Teaching Outdoor Activities and Practicum 3 cr

**Outdoor Education Safety Component**
- Required Course
  - PE 2283 Leave No Trace Trainer 1 cr
- 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 cr
  - PE 2272 Wilderness Survival Skills 1 cr
  - PE 2282 Map, Compass, and Backcountry Navigation 1 cr
  - PE 2284 Avalanche and Winter Sports Safety 1 cr
  - PE 2288 River Safety and Swiftwater Rescue 1 cr
  - PE 3383 Advanced Rock Climbing and Climbing Safety 2 cr
  - PE 4491 Physical Education Workshop* 1-3 cr
  - PEAC 1101 Adaptive Snow Skiing 1 cr
  - PEAC 1108 Instructor Training of Adapted Snowsking 1 cr
  - PEAC 1163 Backpacking 1 cr
  - PEAC 1165 Backcountry GPS Navigation 1 cr
  - PEAC 1166 Canoeing 1 cr
  - PEAC 1167 Kayak Touring 1 cr
  - PEAC 1175A Beginning Kayaking 1 cr
  - PEAC 1176A Beginning Rock Climbing 1 cr
  - PEAC 1177A Beginning Cross-Country Skiing 1 cr
  - PEAC 1178A Beginning Telemark Cross-Country Skiing 1 cr
  - PEAC 1181 Mountain Biking 1 cr
  - PEAC 1182C Advanced Dutch Oven Cooking 1 cr
  - PEAC 1185 Basic Mountaineering 1 cr
  - PEAC 1186B Intermediate Fish Fishing 1 cr
  - PEAC 1189 Beginning Gym Climbing 1 cr
  - PEAC 1191B Intermediate Horsemanship 1 cr
  - PEAC 1194 Caving Workshop 1 cr
* 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).

**Natural History Component**
- Minimum of four (4) credits required. (The Natural History Component is waived for majors or minors in biology, botany, zoology or ecology.)
  - BIOL 1101, 1101L Biology I, and Lab 4 cr
  - BIOL 1102, 1102L Biology II, and Lab 4 cr
  - BIOL 2209 General Ecology 4 cr
  - BIOL 2213 Fall Flora 2 cr
  - BIOL 2214 Spring Flora 2 cr
  - BIOL 3337 Conservation of Natural Resources 3 cr
  - BIOL 4426 Herpetology 3 cr
  - BIOL 4427 Ichthyology 3 cr
  - BIOL 4438 Ornithology 3 cr
  - BIOL 4441 Mammalogy 3 cr
  - GEOG 1000, 1000L The Dynamic Earth, and Lab 4 cr
  - GEOG 1001, 1001L Physical Geology, and Lab 4 cr
  - GEOG 1110 Physical Geology for Scientists Laboratory 1 cr
  - GEOG 2210 Rocks, Minerals, Fossils and Maps 2 cr
  - GEOG 4491 Seminar 1 cr

**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 cr
  - PE 2271 Winter Survival Skills 1 cr
  - PE 2272 Wilderness Survival Skills 1 cr
  - PE 2280 Winter Camping and Backcountry Travel 1 cr
  - PE 2281 Practical Outdoor Skills 1 cr
  - PE 2282 Map, Compass and Backcountry Navigation 1 cr
  - PE 2284 Intermediate Kayaking and Whitewater Safety 1 cr
  - PE 2286 Avalanche and Winter Sports Safety 1 cr
  - PE 2287 Snowboard Instructor Training 1 cr
  - PE 2288 Ski Instructor Training 1 cr
  - PE 3381 River Safety and Swiftwater Rescue 1 cr
  - PE 3383 Advanced Rock Climbing and Climbing Safety 2 cr

**Minor in Sport Management**

**Sport Management Standards**

The Sport Management Minor is modeled to frame the NASPE-NASSM Content Standards for undergraduate Sport Management programs. The standards encompass 10 core areas that include: Behavioral Dimensions of Sport; Management and Organizational Skills; Ethics in Sport Management; Marketing in Sport; Communication in Sport; Finance in Sport; Economics in Sport; Legal Aspects of Sport; Governance in Sport; and Field Experience in a Sport Setting.

Candidates completing this minor must complete a total of 24 credits, including 18 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 cr
- MGT 4473 Human Resource Management 3 cr
- PE 3322 Introduction to Sport Psychology 3 cr
- PE 3364 Introduction to Sport Law 3 cr
- PE 3366 Sport Marketing 3 cr
- PE 4473 Facilities Planning and Design 3 cr
- PE 4490 Sport Management Practicum 3 cr

**Sport Management Elective Courses**
- (6 credits):
  - ECON 2201 Principles of Macroeconomics 3 cr
  - ECON 2202 Principles of Microeconomics 3 cr
  - FIN 3315 Corporate Financial Management 3 cr
  - MGT 2216 Business Statistics 3 cr
  - MKTG 2225 Basic Marketing Management 3 cr
  - MKTG 3327 Consumer Behavior 3 cr
  - PE 4465 Organization and Administration of Intramural Sports 3 cr
  - PE 4475 Organization and Administration of Physical Education and Sport 3 cr
  - PE 4491 Physical Education Workshop* 1-3 cr
  - PE 4493 Introduction to Sport Sociology 3 cr
* When workshop relates to Sport Management.

**Professional Physical Education Courses**

**PE 1160 Women’s Rape Aggression Defense 1 credit.** 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 and WS 1160. PREREQ: Permission of Public Safety office or sponsoring program. F, S

**PE 2200 Team Building Leadership 2 credits.** 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 credits.** 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 credits.** 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 credits.** 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 1 credit.** Laboratory-enhanced skills in field-
based activities and games. Emphasis on participant skill development and performance. F, Su

PE 2236 Activity Performance Techniques II 3 credits. Laboratory-enhanced skills in racquet and court sports. Emphasis on participant skill development and performance. S, Su

PE 2237 Activity Performance Techniques III 3 credits. Laboratory-enhanced skills in fitness and conditioning-based recreation, nontraditional games and activities. Emphasis on skill development and performance. F, Su

PE 2241 Sports Officiating 1 credit. 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 credits. 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 credits. 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 credit. 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 credit. Designed to provide candidates with knowledge and skills necessary to survive a 72 hour winter survival situation. Includes signaling, shelter building, hypothermia, survival kits, fire building, direction finding and desert hazards. F

PE 2280 Winter Camping and Backcountry Travel 1 credit. Techniques, equipment and safety of overnight winter wilderness travel, backcountry skiing and snowshoeing. Permission of instructor. S

PE 2281 Practical Outdoor Skills 1 credit. 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 credit. 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 credit. Principles and practices of minimum impact outdoor techniques including traveling ap-
PE 3366 Sport Marketing 3 credits. 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 credits. 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 credit. 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 credit. 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 extractions, and first aid considerations. Su

PE 3383 Advanced Rock Climbing and Climbing Safety 2 credits. 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 2 credits. 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. OF

PE 3386 Outdoor Leadership 3 credits. 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 credits. 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 credits. 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 credits. 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 credits. Designed to prepare the candidate for teaching secondary physical education activities. Emphasis on a variety of teaching methods and their application to all skill levels at the secondary level. PREREQ: Admission to College of Education Teacher Education Program or permission of instructor. S

PE 4440 Survey of Outdoor Education Literature 3 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 and Sport 3 credits. 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 credits. 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 credit. 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 credits. 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, ASu

PE 4484 Exercise Assessment and Prescription 3 credits. 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. S, ASu

PE 4485 Independent Problems in Physical Education 1-3 credits. 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 credits. 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. May be repeated for a total of 16 credits. F, S, Su

PE 4491 Physical Education Workshop 1-3 credits. 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 credits. 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 Objective 1. F, ASu

PE 4494 Adapted Physical Activity 3 credits. 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 credits. 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 Internship. Graded S/U. F, S
Activity Courses in Physical Education

PEAC 1100 Adaptive Martial Arts 1 credit. Adaptive and corrective exercise programs in the martial arts (including judo and taekwondo) designed for individuals unable to participate in a regular activity class. F, S

PEAC 1101 Adaptive Snow Skiing 1 credit. Adaptive and corrective exercise program in snowsking designed for individuals unable to participate in a regular activity class. S

PEAC 1102 Adaptive Waterskiing 1 credit. Adaptive and corrective exercise program in waterskiing designed for individuals unable to participate in a regular activity class. Su

PEAC 1103 Adaptive Swimming 1 credit. 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 credit. Adaptive and corrective exercise programs in progressive body building and conditioning exercises designed for individuals unable to participate in a regular activity class. F, S

PEAC 1105 Seated Aerobics 1 credit. Adaptive and corrective exercise programs designed to improve cardiovascular fitness, flexibility, and strength. D

PEAC 1107 Instructor Training of Adapted Waterskiing 1 credit. Methods and techniques of teaching waterskiing to people with disabilities. Su

PEAC 1108 Instructor Training of Adapted Snowsking 1 credit. Methods and techniques of teaching snowsking to people with disabilities. S

PEAC 1109 Instructor Training of Adapted Sport 1 credit. 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 credit. Participate in and 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 credit. 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 credit. 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

PEAC 1121B Intermediate Pilates Matwork 1 credit. 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 credit. Introduction to Yoga practice; building and developing strength, balance, flexibility and an appreciation for controlled movement. F, S

PEAC 1122B Intermediate Yoga 1 credit. 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 credit. 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 credit. Participants will work on their swimming, biking, and running skills as well as learn the rules and valuable tips for completing triathlons successfully. Includes physiological self assessments and safety. F, S

PEAC 1127 Wrestling 1 credit. 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 credit. 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 credit. 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 credit. 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 credit. 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 credit. 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 credit. An aerobic style workout that incorporates a balance ball to perform exercises, designed to increase the participant’s core strength and stability, flexibility, range of motion, balance, and coordination. Includes physiological self-assessments and safety. F, S

PEAC 1131G Aerobics: Kickboxing 1 credit. An aerobic style workout which combines elements of boxing, martial arts, and aerobics to provide overall physical conditioning and toning. Includes physiological self assessments and safety. F, S

PEAC 1131H Aerobics: Zumba 1 credit. 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 1131I Aerobics: Nutrition and Weight Management 1 credit. This aerobic/fitness class is designed to introduce students to a wide variety of cardiovascular training modalities, develop a fitness plan, and aid students in gaining the necessary skills to select the foods that promote health and develop a weight management plan. Includes physiological assessments, body composition testing, and safety. F, S

PEAC 1131K Aerobics: Turbokick® 1 credit. Intense kickboxing moves and dance moves choreographed to high energy music, providing a cardiovascular challenge that blends intense intervals strength/endurance training and cool-down. Includes physiological self assessments and safety. F, S

PEAC 1131M Aerobics: Cardio Jam 1 credit. This course is designed to help students improve their physical fitness through—but is not limited to—kickboxing, yoga, pilates, and other forms of cardiovascular and muscle toning exercises. Includes physiological self assessments and safety. F, S

PEAC 1131N Aerobics: Cardio Hip Hop 1 credit. 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 1132 Individualized Physical Education 1 credit. Introduction to lifetime fitness programming components with individually-designed programs. Physiological self-assessments, safety, and equipment are covered. F, S

PEAC 1132A Spinning 1 credit. 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/Personal Fitness 1 credit. 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 credit. 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 credit. 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 credit. 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 credit. 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 Targit Fit (TM) Conditioning 1 credit. Targit Fit (TM) system used for over 1115 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 credit. Physical, mental and spiritual training principles for beginning runners training to compete marathons. D

PEAC 1138 Kendo 1 credit. 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 credit. 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 credit. 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 credit. Introduction to the fundamental skills involved in billiards: technique, game play, scoring, and etiquette. F, S

PEAC 1140B Intermediate Billiards 1 credit. 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 credit. Introduction to fundamental skills, scorekeeping, handicaps, and rules of bowling. F, S

PEAC 1141B Intermediate Bowling 1 credit. 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 credit. Introduction to more advanced individual techniques and skill assessment and corrections for bowling. F, S

PEAC 1142A Beginning Golf 1 credit. Fundamental philosophies and techniques of golf, including grip, use of irons, woods, and putter, and etiquette. F, S

PEAC 1142B Intermediate Golf 1 credit. Designed for the intermediate golfer, this course builds on the acquisition of skills in the fundamental strokes; etiquette; and more advanced reading of the course. F, S

PEAC 1143A Judo 1 credit. Principles and philosophies of judo, including the techniques of grappling, throwing and falling. F, S

PEAC 1143B Intermediate Judo 1 credit. 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 credit. 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 credit. Applications of self-defense within the framework of Judo. Open to all skill levels. F, S

PEAC 1144 Tae Kwon Do 1 credit. 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 credit. An orientation to the safety and techniques of the various events of the modern-day rodeo. F, S

PEAC 1146 Archery 1 credit. Introduction to equipment, technique, and safety practices of archery. D

PEAC 1146B Archery – Bowhunter Education 1 credit. Technique, strategy, safety and equipment in the sport of Bowhunter Archery. Bowhunter Education Certification included. F, S

PEAC 1147A Beginning Karate 1 credit. Principles and philosophies of a modified Sho-rin Ryu Karate Do directed towards beginning martial artists. F, S

PEAC 1148A Beginning Women’s Judo 1 credit. 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 credit. 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 credit. 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 credit. Introduction to fundamentals of technique, strategy, and safety in the game of racquetball. F, S

PEAC 1150B Intermediate Racquetball 1 credit. Continuation of basic skills and fundamental strategies for the intermediate level racquetball player. F, S

PEAC 1150C Advanced Racquetball 1 credit. Refinement of skills, techniques, and strategies for the advanced level racquetball player. D

PEAC 1151A Beginning Tennis 1 credit. Rudimentary principles and techniques of tennis, including basic shot selection, conditioning, drill works, and game play. F, S

PEAC 1151B Intermediate Tennis 1 credit. 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 credit. Refinement of skills, techniques, and strategies for the advanced level player. D

PEAC 1152A Beginning Badminton 1 credit. Introduction to basic skills, game play, and strategies in the game of badminton. D

PEAC 1152B Intermediate Badminton 1 credit. Continuation of skill refinement, more advanced game play, and strategies for the intermediate player. D

PEAC 1152C Advanced Badminton 1 credit. Refinement of fundamental skills, more advanced game play, and strategies for the advanced player. D

PEAC 1153 Racquet Sports 1 credit. Introduction and instruction in fundamental skills for a variety of court sports, specifically tennis, racquetball and badminton. D

PEAC 1154 Table Tennis 1 credit. 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 credit. Introduction to basic individual and team soccer skills, including dribbling, shooting, and offensive and defensive techniques and strategies. S

PEAC 1155B Intermediate Soccer 1 credit. Continuation of fundamental team and individual skill acquisition, and introduction of more advanced techniques and strategies. D

PEAC 1156A Beginning Basketball 1 credit. Fundamental individual and team techniques, strategies, and play. F, S

PEAC 1156B Intermediate Basketball 1 credit. More advanced individual and team techniques, strategies and play for intermediate level players. F, S

PEAC 1157A Beginning Volleyball 1 credit. Introduction to fundamental individual and team skills, strategies, and play for beginning level volleyball players. S

PEAC 1157B Intermediate Volleyball 1 credit. More advanced individual and team skills, strategies, and play for intermediate level volleyball ball players. S

PEAC 1158 Softball 1 credit. 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 credit. This course is designed to enhance student skills and abilities in ultimate frisbee. D
PEAC 1160A Beginning Skiing 1 credit. Fundamental techniques, etiquette, training, safety practices and skill practice in downhill skiing for beginners. S

PEAC 1160B Intermediate Skiing 1 credit. For intermediate level skiers, an emphasis on safety practices, etiquette, more advanced techniques, training, and skill practice. S

PEAC 1160C Advanced Skiing 1 credit. 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 credit. Skill acquisition and safety practices for beginners who wish to ski at night. S

PEAC 1161B Beginning Snowboarding 1 credit. Introduction to snowboarding, including selection of equipment, safety practices, etiquette, and techniques. S

PEAC 1161B Intermediate Snowboarding 1 credit. Designed for the experienced snowboarder. A continuation of the basic skills and techniques included in the beginning course. S

PEAC 1161C Advanced Snowboarding 1 credit. Designed for the advanced snowboarder. A continuation of the intermediate skills and techniques included in the intermediate course. F, S

PEAC 1163 Backpacking 1 credit. 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 credit. 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 credit. The practical use of portable GPS devices for outdoor applications. Topics covered include angular applications. Students will also have practical exercises in using a compass and wayfinding without a GPS. F

PEAC 1166A Canoeing 1 credit. 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 1167A Kayak Touring 1 credit. Basic skills for lake, ocean and flat-water kayaking including equipment, technique, navigation, safety and rescue. F

PEAC 1168 Day Hiking 1 credit. 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 credit. Introduction to the participation in the fundamental techniques, strategies, training systems and safety of touch rugby. D

PEAC 1170A Beginning Swimming 1 credit. Introduction to propulsive movement skills in the water; includes safety, front crawl, and elementary backstroke. F, S

PEAC 1170B Intermediate Swimming 1 credit. 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 credit. Refinement of previous strokes; includes introduction to butterfly, inverted breaststroke, the trudgen, and overarm sidestroke. D

PEAC 1171S Synchronized Swimming 1 credit. 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 credit. 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 credits. Skills in SCUBA: mask, fins, and snorkel use; safety techniques; mechanical equipment use; aquatic environments. Students 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 credits. 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. Student will receive certification after completion of course requirements. PREREQ: Open water certification. D

PEAC 1175A Beginning Kayaking 1 credit. 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 credit. 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 credit. 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 credit. Designed for beginning skiers, this course introduces students to flat surface techniques and progresses to uphill and downhill techniques. Indoor lectures are combined with tours to local cross-country ski areas. S

PEAC 1177B Intermediate Cross-Country Skiing 1 credit. Designed for intermediate skill cross-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 credit. Fundamental skills of executing downhill turns on cross-country skis. Telemark is primary emphasis, but wedge, stem christie, and parallel turns are also covered in relation to free heel skis. S

PEAC 1178B Intermediate Telemark Cross-Country Skiing 1 credit. Course builds upon the basic skills first introduced in the beginning course. Introduces additional techniques. S

PEAC 1179 Diver Stress and Rescue 2 credits. Introduction to fundamentals and techniques to understand diver stress, reasons for occurrence, methods of detection, methods of prevention, methods of treatment at occurrence. Student will receive certification after completion of course requirements. D

PEAC 1180A Beginning Windsurfing 1 credit. Introduction to the basic skills of sailboarding including sail rigging, sailing maneuvers, wind reading and windsurfing safety. F, S

PEAC 1180B Intermediate Windsurfing 1 credit. 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 credit. 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 credit. Includes basic food preparation, meal planning and the care and use of cast iron dutch ovens. Nightly demonstrations by guest chefs. Students will select recipes, buy food, and prepare their own meals. F, S

PEAC 1182C Advanced Dutch Oven Cooking 1 credit. Expands upon the basics taught in the beginning course. Includes large group meal planning, dutch oven catering, garnishing and presentation of meals, gourmet meal preparation, and competitive cooking. F

PEAC 1185 Basic Mountaineering 1 credit. Designed for students 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 credit. Equipment selection, basic techniques of fly-casting, basic knots and types of flies are included. Dry fly fishing, nymphing, and streamer fishing included. D

PEAC 1186B Intermediate Fly Fishing 1 credit. 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: PEAC 1186A or permission of instructor. D

PEAC 1186C Advanced Flyfishing Skills 1 credit. 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 credit. 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 credit. 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 credit. 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 credit. 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 credit. 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 credit. Instruction and participation in ISU Department of Athletics-approved sports. Coach's approval required. F, S

PEAC 1191A Basic Horsemanship 1 credit. Introduces the student 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 credit. 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 credit. 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 credit. Designed for students 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 credit. 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 credit. Introduction to the fundamentals, technique, and overall knowledge of skateboarding. F, S

PEAC 1197 Handball 1 credit. Introduction to the fundamentals of technique, strategy, and safety in the game of handball. D

PEAC 1198A Team Sports: Inline Roller Hockey 1 credit. 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 credit. Fundamentals of lacrosse including: game rules, equipment, safe practices, cradling, passing, catching, scooping, and scrimmaging. D

PEAC 1198C Team Sports: Flag Football 1 credit. Fundamentals of flag football including game rules, equipment, safe practices, passing, catching, offensive and defensive play, and scrimmaging. F
Division of Health Sciences

Linda C. Hatzenbuehler, Ph.D., Associate Vice President
Paul S. Cady, Ph.D., Dean, College of Pharmacy
Tracy J Farnsworth, MHSA, MBA, Interim Associate Dean and Director, Kasiska School of Health Professions
Brian Crawford, D.D.S., Coordinator, Office of Medical and Oral Health
Nancy Devine, PT, M.S., D.P.T., Associate Dean and Director, School of Rehabilitation and Communication Sciences
Mary Neis, Ph.D., Associate Dean and Director, School of Nursing
Linda L. Rankin, Ph.D., Assistant Dean
Rex W. Force, Pharm.D., Associate Dean for Clinical Research

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. More than 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-campus and statewide clinics provide students with hands-on training. Fourteen in-house clinics include medicine, dentistry, dental hygiene, audiology, speech pathology, counseling, occupational therapy, physical therapy, vestibular (balance), and wellness. Beyond the basic skill sets associated with clinical practice, we train our students to become leaders in their professions and communities. Doing this requires hiring and retaining nationally recognized faculty, using the most current teaching technologies, and giving students access to the hands-on learning opportunities they need for success.

The Division of Health Sciences is organized into six units:
- College of Pharmacy
- Institute of Rural Health
- Kasiska School of Health Professions
- Office of Medical and Oral Health
- School of Nursing
- 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, 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, Ph.D., Music
Liz Cartwright, Ph.D., Anthropology
Karl De Jesus, Ph.D., Chemistry
Dana L. Diedrich, Ph.D., Biomedical and Pharmaceutical Sciences
Tracy J Farnsworth, MHSA, MBA, Kasiska College of Health Professions
James R. Groome, Ph.D., Biological Sciences
Linda Hatzenbuehler, Ph.D., Division of Health Professions
Patrick Hermanson, DHA, Health Care Administration
Margaret Johnson, Ph.D., English and Philosophy
Kathleen Kangas, Ph.D., Communication Sciences and Disorders
Dave Martin, M PAS, Physician Assistant Studies
Jeffrey Meldrum, Ph.D., Biological Sciences
Jean Pfau, Ph.D., Biological Sciences
Paula Phelps, MHE PA-C, Physician Assistant Studies
Lisa Salazar, MPH, Physician Assistant Studies
Derek Wright, M.D., Family Practice Residency
Idaho Falls Campus:
Catherine Black, MS, Biological Sciences
Lyle W. Castle, Ph.D., Chemistry
Barbara Frank, Ph.D., Biological Sciences

In general, health professional schools have no preference for specific academic majors. Instead, they prefer that applicants major in a defined academic area (zoology, chemistry, psychology, economics, for example) and concurrently satisfy the prerequisite courses for the specific health professional school. Pre-health professional students should consult with the Pre-Health Advisor or a member of the Pre-Health Professions Advisory Committee in order to successfully combine an academic major with a pre-health professional program. It is strongly recommended that pre-professional students develop a strong background in courses such as those listed below. Courses required by most health professional schools include, but are not limited to, the following, many of which also satisfy General Education Objectives:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1101,1101L</td>
<td>Biology I, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 1102,1102L</td>
<td>Biology II, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 2206</td>
<td>Cell Biology and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>CHEM 1111,1111L</td>
<td>General Chemistry I, and Lab</td>
<td>5 cr</td>
</tr>
<tr>
<td>CHEM 1112,1112L</td>
<td>General Chemistry II, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>CHEM 3301</td>
<td>Organic Chemistry I</td>
<td>3 cr</td>
</tr>
<tr>
<td>CHEM 3302</td>
<td>Organic Chemistry II</td>
<td>3 cr</td>
</tr>
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<td>Organic Chemistry Laboratory I</td>
<td>4 cr</td>
</tr>
<tr>
<td>CHEM 3304</td>
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<tr>
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<tr>
<td>ENGL 1102</td>
<td>Critical Reading and Writing</td>
<td>3 cr</td>
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<tr>
<td>PHYS 1111</td>
<td>General Physics I</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHYS 1112</td>
<td>General Physics II</td>
<td>3 cr</td>
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<td>PHYS 1113-1114</td>
<td>General Physics Laboratory I and II</td>
<td>4 cr</td>
</tr>
<tr>
<td>PSYC 1101</td>
<td>Introduction to General Psychology</td>
<td>3 cr</td>
</tr>
<tr>
<td>SOC 1101</td>
<td>Introduction to Sociology</td>
<td>3 cr</td>
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</tbody>
</table>

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 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 www.adea.org, or by consulting the latest edition of “ADEA Official Guide to Dental Schools,” published by the American Dental Education Association, 1625 Massachusetts Avenue NW, Washington, D.C. 20036. A copy of this guide is available in the Pre-health Professions Advising Office. All dental applicants must take the Dental Admissions 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.

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 20 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 Underserved Track), is to allow for a focused medical school experience in rural and urban underserved care, with the eventual goal of returning physicians to practice in the rural and urban underserved 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 underserved community. More information is available through the TRUST website: http://depts.washington.edu/fammed/education/programs/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 elsewhere in this catalog where those programs are described.

Students may be advised to satisfy 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 American Association of Colleges of Optometry (ASCO) website at www.opted.org. All optometry applicants must take the Optometry Admission Test (OAT). 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 schools are described on the schools’ websites, which can be accessed through the American Association of Colleges of Podiatric Medicine website at www.opted.org. 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): www.aavmc.org. Veterinary medicine applicants must take the General Test of the Graduate Record Exam (GRE), and have volunteer experience with a practicing veterinarian prior to applying to the individual schools of veterinary medicine.

Idaho residents should be aware that a long term agreement has been reached among the states of Washington, Oregon, and Idaho (WOI) to share responsibility for the curriculum and program at the Washington State University College of Veterinary Medicine. The WOI program gives admissions preference to 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: [www.chirocolleges.org](http://www.chirocolleges.org)
- **Dentistry**
  - American Dental Association: [www.ada.org](http://www.ada.org)
  - American Dental Education Association: [www.adea.org](http://www.adea.org)
- **Medicine**
  - Allopathic (M.D.)
    - Association of American Medical Colleges (AAMC): [www.aamc.org](http://www.aamc.org)
  - Osteopathic (D.O.)
  - Podiatric (D.P.M.)
    - American Association of Colleges of Podiatric Medicine (AACPM): [www.aacpm.org](http://www.aacpm.org)
- **Occupational Therapy**
  - American Occupational Therapy Association: [www.aota.org](http://www.aota.org)
- **Optometry**
  - Association of Schools and Colleges of Optometry (ASCO): [www.opted.org](http://www.opted.org)
- **Physical Therapy**
  - American Physical Therapy Association (APTA): [www.apta.org](http://www.apta.org)
  - Physician Assistant Education Association: [www.paceaonline.org](http://www.paceaonline.org)
  - Veterinary Medicine
    - Association of American Veterinary Medical Colleges (AAVMC): [www.aavmc.org](http://www.aavmc.org)
Bachelor of Science in Health Science

The Bachelor of Science degree with a major 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.

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 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 cr)

- BIOL 3301, 3301L Anatomy and Physiology, and Lab 4 cr
- DHS 4426 Evidence-Based Research in Health Sciences 3 cr
- HE 2200 Promoting Wellness 3 cr
- HCA/HCA 2210 Medical Terminology and Communication 2 cr
- OR HO 1106 Medical Terminology 2 cr

*(Doctor of Pharmacy students fulfill the requirements of HE 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).

**Transfer students may also need to take BIOL 1101 and 1101L, which may also partially satisfy General Education Objective 5.

Professional Competencies (3 cr)

Choose One:
- HCA 2215 Health Care Leadership 3 cr
- HCA 4475 Health Care Law and Ethics 3 cr
- HO 1007 Medical Law and Ethics 3 cr
- PHIL 2230 Medical Ethics 3 cr

*(Doctor of Pharmacy students meet this core requirement by completion of PHAR 9941, Introduction to Pharmacy Practice I).

Health Care (3 cr)*

Choose One:
- ECON 3303 Health Economics 3 cr
- HCA 1115 U.S. Health Systems 3 cr
*(Doctor of Pharmacy students meet this core requirement by completion of PHAR 9931, Health Care Systems).

Communication (3 cr)*

Choose One:
- ANTH 4409 Clinical Medical Anthropology 3 cr
- COMM 4441 Interpersonal Communication 3 cr
- COUN 3300 Interpersonal Skills for Health Professionals 3 cr
- ENGL 3307 Professional and Technical Writing 3 cr
- HE 4410 Behavior Change Theories 3 cr
- HE 4425 Patient Education Strategies 2 cr
*(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 cr)*

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.

Choose One:
- ANTH 4409 Clinical Medical Anthropology 3 cr
- COUN 3300 Interpersonal Skills for Health Professionals 3 cr
- HCA 4475 Health Care Law and Bioethics 3 cr
- HE 4425 Patient Education Strategies 2 cr
*(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).

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 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 pre-requisite 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 in the School of Rehabilitation and Communication Sciences in the Division of Health Sciences section of the catalog for detailed information about this concentration.

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 in the College of Technology section of the catalog for detailed information about this concentration.

Concentration 4: Pharmacotherapy

Doctor of Pharmacy students can apply to receive a B.S. in Health Science upon completion of the second year of the Doctor of Pharmacy curriculum. This concentration is available only to students who successfully:
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.

Department of Pharmacy Practice and Administrative Sciences

Chair and Associate Professor: Owens
Professors: Adamcik, Cady, Culbertson, Erramouspe, Force, Lott, Madaras-Kelly, Mason, Rhodes
Associate Professors: Cashmore, Cleveland, Gould, Hunt, Liday, Oliphant
Clinical Associate Professors: Hefflinger, Pettinger, Pugmire
Clinical Assistant Professors: Baker, Borzadek, Carr, Casperson, Davis, Eroshenko, Hachey, Jantz, Steed, Wadsworth
Visiting Research Professor: Holmes
Adjunct Faculty: Johnston, Stander
Emeriti: Galizia, Hurley, Jue, Sharp

Department of Biomedical and Pharmaceutical Sciences

Chair and Professor: Diedrich
Assistant Chair and Professor: Lai
Professors: Bhushan, Dodson
Associate Professors: Bigelow, Wilson
Assistant Professor: Downing, Talley, Yan
Visiting Assistant Professor: Li
Emeriti: Daniels, Fontenelle, Isaacson

Accreditation

The Doctor of Pharmacy program is accredited by the Accreditation Council for Pharmacy Education (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 the Pharmacist. Students are also expected to abide by the American Pharmacists Association’s Code of Ethics of the Profession.

Admission to the Doctor of Pharmacy Program

Application
Apply online at 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 obtained 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.

New students are admitted to the Meridian or Pocatello professional program of the College only in the fall semester of each year. All students must be CPR/AED and first-aid certified and demonstrate immuni-

zation compliance prior to entering the first professional year. A criminal background check will be required; screening for drug and alcohol use may be necessary.

Application Procedure
Admission to the Doctor of Pharmacy program requires a separate application in addition to the one for the University’s general admission. All application materials must be received by February 1.

Application materials include:
1. College of Pharmacy application and a $55 nonrefundable application fee;
2. Official transcripts of all previous college course work, including detailed evaluation of all international coursework;
3. Three letters of recommendation, one of which must be from a pharmacist.

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 those 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 one of three categories:
1. admission,
2. reserve for possible admission pending available positions, or
3. no admission.

Admission Under Special Circumstances

Transfer from Other Schools of Pharmacy
Students wishing to transfer from another college of pharmacy should be 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 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.

Progression Requirements
Students accepted into the professional 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 distributed 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 the Introductory Pharmacy Practice Experience (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 site other than their home base.

During any APPE, students are required to complete a minimum of 40 contact hours per week of practice experience in a variety of health care settings. Since patient care is a continuous activity, some off-campus experiences are conducted outside the traditional work day (shift work). IPPE and APPE sites may require additional background checks, as well as drug and alcohol screens. 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 registered 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 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 must also 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 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:

Executive Secretary
Idaho State Board of Pharmacy
PO Box 83720
Boise, ID 83720-0067
(208) 334-2356

Doctor of Pharmacy

Prepharmacy Courses

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<tr>
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<tr>
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<td>Principles of Speech</td>
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</tr>
<tr>
<td>BIOL 2235</td>
<td>General Microbiology</td>
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</tr>
<tr>
<td>BIOL 3301</td>
<td>Anatomy and Physiology,</td>
<td>4 cr</td>
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<tr>
<td>BIOL 3302</td>
<td>Pharmacology</td>
<td>4 cr</td>
</tr>
<tr>
<td>CHEM 1111</td>
<td>General Chemistry I,</td>
<td>5 cr</td>
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<tr>
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<tr>
<td>CHEM 1112</td>
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<tr>
<td>CHEM 1112L</td>
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</tr>
<tr>
<td>ECON 2201</td>
<td>Principles of Microeconomics</td>
<td>3 cr</td>
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<td>ECON 2202</td>
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<tr>
<td>ENGL 1101</td>
<td>English Composition</td>
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General Education Requirements:

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<tr>
<td>BIOL 3301</td>
<td>Anatomy and Physiology</td>
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<tr>
<td>ENGL 1101</td>
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Additional Recommended Electives:

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</tr>
<tr>
<td>Electives</td>
<td>(minimum) 2 cr</td>
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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 first professional year provides a foundation in the basic and pharmaceutical sciences that includes physiology, pharmacology and pharmacometrics. 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, hematological/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. The last 42 weeks, or fourth professional year, is devoted to full-time clinical experience in various pharmacy practice environments. Students will complete six-week experiences in various areas of practice.

Given the length of the final year of the Pharm.D. 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.
Graduation Requirements

First Professional Year (P-1) Curriculum

Summer Term
- PHAR 9911* Introductory Practice Experience I 1 cr

Fall Semester
- PHAR 9910 First Year Recitation 0 cr
- PHAR 9921 Biological Basis of Drug Actions I 3 cr
- PHAR 9924 Physicochemical Basis of Drug Actions 3 cr
- PHAR 9931 Health Care I 3 cr
- PHAR 9941,9941L Introduction to Pharmacy Practice and Literature I, and Lab 4 cr
- PHAR 9949,9949R Human Physiology I, and Recitation 4 cr

TOTAL: 17 cr

Spring Semester
- PHAR 995 Introduction to Clinical Problem Solving 2 cr
- PHAR 9910 First Year Recitation 0 cr
- PHAR 9992 Introduction to Clinical Practice Experience II 1 cr
- PHAR 9926 Basic Pharmacuetics and Calculations 3 cr
- PHAR 9942 Introduction to Pharmacy Practice and Literature II 3 cr
- PHAR 9956,9956R Human Physiology II, and Recitation 4 cr

TOTAL: 17 cr

* The requirement for PHAR 9911 is fulfilled for students who prove evidence of completion of on-line 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 completing extern requirements.

Second Professional Year (P-2) Curriculum

Fall Semester
- PHAR 9906 Case Studies in Pharmacy I 2 cr
- PHAR 9920 Second Year Recitation 0 cr
- PHAR 9927 Dosage Form Design and Compounding w/Lab 4 cr
- PHAR 9951 Pharmacotherapy Lab I 1 cr
- PHAR 9961 Pharmacotherapy I 2-5 cr
- PHAR 9962 Pharmacotherapy II 2-5 cr

Spring Semester
- PHAR 9907 Case Studies in Pharmacy II 2 cr
- PHAR 9913 Introductory Practice Experience III 1 cr
- PHAR 9920 Second Year Recitation 0 cr
- PHAR 9944,9944L Health Care II, and Lab 4 cr
- PHAR 9963 Pharmacotherapy III 2-5 cr
- PHAR 9964 Pharmacotherapy IV 2-5 cr
- PHAR 9965 Pharmacotherapy V 2-5 cr

Third Professional Year (P-3) Curriculum

Fall Semester
- PHAR 9908 Case Studies in Pharmacy II 2 cr
- PHAR 9930 Third Year Recitation 0 cr
- PHAR 9945, 9945L Health Care III, and Lab 4 cr
- PHAR 9966 Pharmacotherapy VI 2-5 cr
- PHAR 9967 Pharmacotherapy VII 2-5 cr
- PHAR 9968 Pharmacotherapy VIII 2-5 cr

Spring Semester
- PHAR 9914 Introductory Practice Experience IV 1 cr
- PHAR 9930 Third Year Recitation 0 cr
- PHAR 9948 Pharmacy Law 2 cr
- PHAR 9952 Pharmacotherapy Lab IV 1 cr
- PHAR 9969 Pharmacotherapy IX 2-5 cr
- PHAR 9970 Pharmacotherapy X 2-5 cr
- PHAR 9971 Capstone Pharmacotherapeutics 3 cr

Electives
- Electives (may be taken in any semester) 6 cr

Fourth Professional Year (P-4) Curriculum

Full Calendar Year
- PHAR 9981 Advanced Pharmacy Practice Experiences (APPE)* 49 cr
- PHAR 9982 Professional Student Seminar 1 cr

Total for Doctor of Pharmacy Degree, including a minimum of 6 Elective credits: 225 cr

*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
- Elective 6 weeks

TOTAL: 42 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.

Advanced Practice Experience 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.

**Pharmaceutical Care** - Emphasizes the development, implementation and assessment of pharmaceutical care activities provided in the nontraditional student’s work setting.

**Research** - Provides research experience in the pharmaceutical sciences.

Bachelor of Science in Health Science

Concentration 4: Pharmacotherapy

Doctor of Pharmacy students can apply to receive a B.S. in Health Science upon completion of the second year of the Doctor of Pharmacy curriculum. This concentration is available only to students who successfully:

- are admitted to the Doctor of Pharmacy program
- have satisfied the General Education Objectives of Idaho State University
- have completed the Doctor of Pharmacy equivalents to the B.S. in Health Science core courses
- have completed the first (P1) and second (P2) years of the Doctor of Pharmacy curriculum.

Doctor of Pharmacy students must apply by the graduation deadline of their P2 year to receive the B.S. in Health Science upon completion of their second year of the Doctor of Pharmacy program.
Joint Doctor of Pharmacy/Master of Business Administration

The College of Business and College of Pharmacy at Idaho State University offer a joint Pharm.D./M.B.A. program for students interested in earning both degrees. Students enrolled in the Pharm.D. program may earn an M.B.A. degree with approximately one summer and one year of additional course work.

The program is closely aligned with the Pharm.D. curriculum with the following changes and requirements:

- During the two years of prepharmacy course work, the student should take ECON 2201, ECON 2202, ACCT 2201 and ACCT 2202.
- During the third professional year in the Pharm.D. program and the summer preceding that year, the student should take MBA 6613, MBA 6614, MBA 6615 and MBA 6616. These courses will satisfy six hours of electives required for the Pharm.D. 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 Pharm. D. curriculum.
- Six hours of specified experiential courses (PHAR 9981) taken in the fourth professional year of the Pharm.D. program will satisfy six elective hours required in the M.B.A. curriculum.
- Throughout and following the professional Pharm.D. program, the student must complete the second year of the M.B.A. curriculum, which includes MBA 6620, MBA 6621, MBA 6622, MBA 6623, MBA 6624, MBA 6625, MBA 6626 and MBA 6628.
- Upon completion of all required MBA classes, students must complete the MBA oral exam.

Admission to the Joint Pharm.D./M.B.A. Program

Interested student applicants may be admitted to the M.B.A. program at the end of the second professional year of the Pharm.D. curriculum. Awarding of the M.B.A. in this joint program requires successful completion of the Pharm.D. degree. Students must meet regular admission requirements for the M.B.A. 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.

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 Pharm.D. 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 training in various clinical pharmacy disciplines.

Admission Requirements

Candidates for the NonT Pharm.D. program must complete an admissions procedure that includes submitting documented evidence of a strong academic record, clinical experience, and past achievements as a pharmacy practitioner. In determining admission status, the Admissions Committee will weigh all evidence each student provides, including their academic record and documented achievements as a pharmacy practitioner. Priority is given to residents of Idaho; however, pharmacists are encouraged to apply regardless of their state of residence.

Admissions Process

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 skills.
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

The courses students will take are competency-based. This means the student will not receive a passing grade in the course until s/he has achieved the minimum level of knowledge and skills required for the course.

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.

Over 300 sites have been established throughout the U.S. Additional sites may be approved if they meet the learning objectives specified by the program. Every effort will be made to place each student in an appropriate site 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.

Curriculum

The minimum didactic courses students will be required to complete are as follows:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Time Allowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>PDNT 9905</td>
<td>Introduction to Clinical Problem Solving</td>
<td>1 cr</td>
</tr>
<tr>
<td>PDNT 9918</td>
<td>Drug Literature Evaluation and Statistics</td>
<td>2 cr</td>
</tr>
<tr>
<td>PDNT 9938</td>
<td>Drug and Medical Informatics</td>
<td>1 cr</td>
</tr>
<tr>
<td>PDNT 9961</td>
<td>Pharmacotherapy I</td>
<td>3 cr</td>
</tr>
<tr>
<td>PDNT 9962</td>
<td>Pharmacotherapy II</td>
<td>3 cr</td>
</tr>
<tr>
<td>PDNT 9963</td>
<td>Pharmacotherapy III</td>
<td>2 cr</td>
</tr>
<tr>
<td>PDNT 9964</td>
<td>Pharmacotherapy IV</td>
<td>4 cr</td>
</tr>
<tr>
<td>PDNT 9965</td>
<td>Pharmacotherapy V</td>
<td>4 cr</td>
</tr>
<tr>
<td>PDNT 9966</td>
<td>Pharmacotherapy VI</td>
<td>3 cr</td>
</tr>
<tr>
<td>PDNT 9967</td>
<td>Pharmacotherapy VII</td>
<td>2 cr</td>
</tr>
<tr>
<td>PDNT 9968</td>
<td>Pharmacotherapy VIII</td>
<td>3 cr</td>
</tr>
<tr>
<td>PDNT 9969</td>
<td>Pharmacotherapy IX</td>
<td>4 cr</td>
</tr>
<tr>
<td>PDNT 9970</td>
<td>Pharmacotherapy X</td>
<td>3 cr</td>
</tr>
<tr>
<td>PDNT 9971</td>
<td>Pharmacotherapy XI (Capstone w/recitation)</td>
<td>2 cr</td>
</tr>
<tr>
<td></td>
<td>TOTAL:</td>
<td>37 cr</td>
</tr>
</tbody>
</table>

In addition to these didactic courses, students will be required to complete 18 weeks of advanced practical experiences (PHAR 9981). These include:

- Ambulatory Care: 6 weeks
- Medicine: 6 weeks
- Pharmaceutical Care: 6 weeks

* The student may choose one 6-week experience or Pharmaceautical Care in a specialty area such as (but not limited to) Pediatrics, Geriatrics, Mental Health, Drug Information, Infectious Disease, and Transplant Therapeutics. While most advanced practice experiences constitute established pharmacy specialties, the Pharmaceutical Care option offers the student the unique opportunity to implement an aspect of pharmaceutical care at their site of employment. 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.

Continuing Education

The Idaho State University College of Pharmacy is approved by the Accreditation Council for Pharmacy Education (ACPE) as a provider of Continuing Pharmacy Education. Students will be awarded ACPE-accredited continuing education credits in addition to academic credits. Five (5) hours of continuing education (CE) will be granted for successful completion of each credit in the didactic portion of the program. In addition, 15 hours of CE will be conferred for the Medicine and Ambulatory Care practice experiences.

Sequence of Study and Time Allowed to Complete a Course

The first three courses may be taken in any order. A suggested sequence for those who have not been in school recently is: PDNT 9938, PDNT 9905 and then PDNT 9918. The first three courses must be completed before the Pharmacotherapy modules are started. These modules must be taken in the sequence in which they are listed.

The NonT program does not function on a traditional semester calendar. Students must register for and complete didactic courses within the 3.5 years allotted. It is recommended that students complete one credit per month to keep within the 3.5 year deadline; however, students are allowed to advance more quickly. Students will not be allowed to remain in the didactic portion of the program longer than 3.5 years.

The Doctor of Pharmacy degree is conferred three times a year—May, August, and December. Students completing all program requirements before these dates may be supplied with an official letter stating that they have completed the program.

Format of Didactic Instruction

The didactic course work is taught utilizing a combination of DVDs, interactive web-based case studies, detailed syllabi and textbooks suitable for the nontraditional learner. Each course has an assigned instructor who is available to students via telephone or email for questions or assistance. Examinations are administered by a proctor identified by the student and approved by the program. Students must sign a validation sheet before each examination agreeing to abide by an honor code.

To protect the integrity of the program, some graded examinations will not be returned to the student. However, if a student so desires, the exam questions missed will be returned to them via fax, mail, or email with the correct answers indicated.

Criteria for Selection of Nontraditional Pharm.D. Practice Sites and Preceptors

The experiential component of the nontraditional Pharm.D. curriculum provides the mechanism whereby students are given practical education in several important areas of clinical pharmacy practice. It is essential that this education be provided in facilities where high standards of pharmaceutical care and instruction are available. Therefore, preceptors and sites must meet certain qualifications.

Qualifications of Preceptors: Preceptors are expected to be clinical pharmacists actively engaged in the delivery of high-quality pharmaceutical care. These individuals typically will have completed the Pharm.D. degree and may have residency and/or fellowship training. These individuals will spend the majority of their time providing pharmaceutical care in their facility but will be able to commit sufficient time to the education of the student. Preceptors may be eligible to receive affiliate faculty appointment at Idaho State University College of Pharmacy.

Qualifications of Facilities: Facilities will be licensed and accredited by appropriate agencies which govern pharmacy practice.
and/or health care delivery in respective geopolitical regions. Clinical services will be integrated into the routine practice of pharmacy; mechanisms to assure the quality of these services will be in place. Commitment of the facility to the Idaho State University educational program may be documented with an “Affiliation Agreement” with the University.

Nontraditional students who desire to complete clinical experiences at facilities currently affiliated with the Idaho State University College of Pharmacy traditional Pharm.D. program will be incorporated into the placement process employed for traditional students.

Student Responsibilities

Students may request to complete clinical experiences at sites in close proximity to their home but which are not currently affiliated with the Idaho State University College of Pharmacy. Practice sites requested by students may require that a representative of the College visit the facility to validate the acceptability of the site for clinical instruction before the site can be approved.

Students who request non-affiliated sites must follow the steps outlined below:

1. Notify the Director or Assistant Director of the Nontraditional Pharm.D. Program of the desire to complete clinical experiences at alternative sites. The Director or Assistant Director will give the student permission to make initial contact with the facility(ies) and preceptor(s). This step ensures that the College is aware that its students are making initial educational contacts on its behalf. If a student wants to complete training at a facility(ies) or with a preceptor(s) unacceptable to the College, the Director or Assistant Director will deny permission.

2. Contact the facility(ies) and preceptor(s) to determine if they have interest in having the student complete training at their site in the desired time frame.

3. Report to the Director or Assistant Director the results of contact(s) with proposed facility(ies) and preceptor(s).

College of Pharmacy Responsibilities

Assuming the student has successfully identified facilities and preceptors which are tentatively acceptable to the College, the following steps will occur:

1. The Director or Assistant Director will contact the preceptor(s) to confirm the interest in affiliation with the College. This contact will document the ability of preceptor(s) and facility(ies) to fulfill the educational requirements. Preliminary discussions regarding affiliate faculty appointment and payment for supervision may also occur.

2. Provided mutual interest in an academic affiliation is sustained, the Director or Assistant Director may schedule a visit to the facility(ies) and preceptor(s) to confirm the acceptability of the site(s) for clinical instruction.

3. Acceptable consensus will be reached between the facility(ies) and the University regarding “Affiliation Agreements,” payment of facilities or preceptors, and affiliate faculty appointments.

4. The Director or Assistant Director will communicate with preceptors, receive grades, receive student evaluations of preceptors, and visit sites as needed.

Program Director/Advisor

Students will be assigned an advisor upon admission to the program. The NonT program will be responsible for course and practical training registration, delivery of examination materials to the proctor and any other administrative details associated with the program.

Nontraditional Application Materials

Application materials and other information may be obtained by mail, telephone or the internet:

Nontraditional Doctor of Pharmacy Program
College of Pharmacy
Idaho State University
921 S 8th Ave., Stop 8356
Pocatello ID 83209-8356
(208) 282-3918
ntpd@pharmacy.isu.edu
http://pharmacy.isu.edu/live/prospective/nont.html

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 cr</td>
</tr>
<tr>
<td>PSCI 3301</td>
<td>Introduction to Pharmacology</td>
<td>3 cr</td>
</tr>
<tr>
<td>PSCI 3353</td>
<td>Introduction to Methods in Pharmaceutical Sciences</td>
<td>2 cr</td>
</tr>
<tr>
<td>PSCI 4438</td>
<td>Pharmaceutical Science Research</td>
<td>2 cr</td>
</tr>
</tbody>
</table>

In addition, the student must take a minimum of 9 additional elective credits from the list below of elective courses.

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>
<td>3 cr</td>
</tr>
<tr>
<td>PSCI 3368</td>
<td>Introduction to Toxicology</td>
<td>3 cr</td>
</tr>
<tr>
<td>PSCI 4401</td>
<td>Drug Abuse</td>
<td>2 cr</td>
</tr>
<tr>
<td>PSCI 4402</td>
<td>Immunopharmacology</td>
<td>2 cr</td>
</tr>
<tr>
<td>PSCI 4403</td>
<td>Infectious Diseases and Natural Products</td>
<td>3 cr</td>
</tr>
<tr>
<td>PSCI 4404</td>
<td>Pulmonary and Cardiac Pharmaclogy</td>
<td>3 cr</td>
</tr>
<tr>
<td>PSCI 4405</td>
<td>Behavioral Pharmacology</td>
<td>2 cr</td>
</tr>
<tr>
<td>PSCI 4406</td>
<td>Introduction to Endocrinology</td>
<td>2 cr</td>
</tr>
<tr>
<td>PSCI 4407</td>
<td>Pharmacogenomics</td>
<td>2 cr</td>
</tr>
<tr>
<td>PSCI 4408</td>
<td>Medicinal Chemistry</td>
<td>3 cr</td>
</tr>
<tr>
<td>PSCI 4414</td>
<td>Women’s Health Issues</td>
<td>3 cr</td>
</tr>
<tr>
<td>PSCI 4430</td>
<td>Psychopharmacology</td>
<td>3 cr</td>
</tr>
<tr>
<td>PSCI 4431</td>
<td>Cancer Biology</td>
<td>3 cr</td>
</tr>
<tr>
<td>PSCI 4432</td>
<td>Anticancer Drugs</td>
<td>3 cr</td>
</tr>
<tr>
<td>PSCI 4433</td>
<td>Physical Pharmaceutics</td>
<td>3 cr</td>
</tr>
<tr>
<td>PSCI 4434</td>
<td>Pharmacokinetics</td>
<td>3 cr</td>
</tr>
<tr>
<td>PSCI 4436</td>
<td>Special Topics in Oncology</td>
<td>1 cr</td>
</tr>
<tr>
<td>PSCI 4441</td>
<td>Diabetes for Health Sciences</td>
<td>2 cr</td>
</tr>
<tr>
<td>PSCI 4462</td>
<td>Neuropharmacology</td>
<td>3 cr</td>
</tr>
<tr>
<td>PSCI 4482</td>
<td>Special Topics in Pharmaceutical Science</td>
<td>1-3 cr</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 also is 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 degree must satisfy 8 of the 9 General Education Objectives (a minimum of 36 credits--see the Academic Information section of this Catalog). Students must also satisfy the core requirements listed below, the requirements for one of the biochemistry tracks, and 9 credits of elective courses in Biology, Chemistry, and Biomedical and Pharmaceutical Sciences. All graduates of this program will earn a B.S. in Biochemistry, irrespective of which track is selected.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1101, 1101L</td>
<td>Biology I, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 1102, 1102L</td>
<td>Biology II, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 2235, 2235L</td>
<td>General Microbiology</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 3358</td>
<td>Genetics</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL 4437</td>
<td>Experimental Biochemistry</td>
<td>1 cr</td>
</tr>
<tr>
<td>BIOL 4444,4444L</td>
<td>Cell and Molecular Biology, and Lab</td>
<td>5 cr</td>
</tr>
<tr>
<td>BIOL CHEM 4445Biochemistry I</td>
<td>3 cr</td>
<td></td>
</tr>
<tr>
<td>BIOL CHEM 4447Biochemistry II</td>
<td>3 cr</td>
<td></td>
</tr>
<tr>
<td>BIOL CHEM 4498 Seminar in Biochemistry</td>
<td>1 cr</td>
<td></td>
</tr>
<tr>
<td>CHEM 1111, 1111L</td>
<td>General Chemistry I, and Lab</td>
<td>5 cr</td>
</tr>
<tr>
<td>CHEM 1112, 1112L</td>
<td>General Chemistry II, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>CHEM 2232, 2234</td>
<td>Quantitative Analysis, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>CHEM 3301, 3303</td>
<td>Organic Chemistry I, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>CHEM 3302, 3304</td>
<td>Organic Chemistry II, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>CHEM 3341**</td>
<td>Topics in Physical Chemistry I</td>
<td>3 cr</td>
</tr>
<tr>
<td>CHEM 3342**</td>
<td>Topics in Physical Chemistry II</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 1170</td>
<td>Calculus I</td>
<td>4 cr</td>
</tr>
<tr>
<td>MATH 1175</td>
<td>Calculus II</td>
<td>4 cr</td>
</tr>
<tr>
<td>PHYS 1111, 1113**</td>
<td>General Physics I, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>PHYS 1112, 1114**</td>
<td>General Physics II, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>Subtotal:</td>
<td></td>
<td>71 cr</td>
</tr>
</tbody>
</table>

General Education Requirements 24 cr

TOTAL: 95 cr

*Students must pass core courses with a grade of C- or better.
**May elect to take CHEM 3351 and 3352 instead of CHEM 3341 and 3342.
***PHYS 2211, 2212, 2213, 2214 may be taken to fulfill the Physics requirement in the core curriculum.

Concentration Requirements
Students must satisfy the requirements for one of the biochemistry concentrations listed below. All graduates will earn a B.S. in Biochemistry, irrespective of which concentration is selected.

Concentration 1: Biological Chemistry
CHEM 2211, 2213 Inorganic Chemistry, and Lab 4 cr
CHEM 3331, 3334 Instrumental Analysis, and Lab 4 cr
CHEM 4492 Seminar 1 cr

Concentration 2: Biochemistry and Molecular Biology
BIOL 3302 and 3302L, 3304 and 3304L; 4404 and 4404L, or 4433 and 4433L
BIOL 4461 Advanced Genetics 3 cr
BIOL 4492 Seminar 1 cr

Concentration 3: Physiological Biochemistry
BIOL 3302 and 3302L, or 3304 and 3304L
Human or Animal Physiology, and Lab 4 or 5 cr
PSCI 3301 Seminar 1 cr

Electives
Students must take a minimum of 9 elective credits from the list below, with at least 3 credits in Biological Sciences (BIOL), 3 credits in Chemistry (CHEM), and 3 credits in Biomedical and Pharmaceutical Sciences (PSCI). Advanced or experimental courses are acceptable. These courses satisfy the electives requirement only if they are not required for a chosen Biochemistry concentration.

Courses in Biological Sciences
BIOL 3301, 3301L Anatomy and Physiology, and Lab 4 cr
BIOL 3302, 3302L Anatomy and Physiology, and Lab 4 cr
BIOL 3304,3304L Comparative Vertebrate Morphology, and Physiology and Lab 5 cr
BIOL 3324, 3324L Developmental Biology and Lab 4 cr
BIOL 4404 Plant Physiology 4 cr
BIOL 4404L Plant Physiology Lab (optional) 1 cr
BIOL 4415, 4415L Human Neurobiology, and Lab 5 cr
BIOL 4417 Organic Evolution 3 cr
BIOL 4433, 4433L Microbial Physiology, and Lab 4 cr
BIOL 4434, 4434L Microbial Diversity, and Lab 4 cr
BIOL 4443 Endocrinology 3 cr
BIOL 4449, 4449R / PHAR 9949, 9949R Human Physiology, and Recitation 4 cr
BIOL 4451, 4451L Immunology, and Lab 4 cr
BIOL 4456, 4456R / PHAR 9956, 9956R Human Physiology II, and Recitation 4 cr
BIOL 4461 Advanced Genetics 3 cr
BIOL 4463, 4463L Human Pathophysiology, and Lab 4 cr
BIOL 4477, 4477L Applied and Environmental Microbiology, and Lab 4 cr
BIOL 4475 General Virology 3 cr
BIOL 4477 or 4478 Bacterial or Animal Virology Laboratory 1 cr
BIOL 4481 and/or 4482 Independent Problems (max 2 credits) 2 cr
BIOL 4488 Advanced Radiobiology 3 cr

Courses in Chemistry
CHEM 2211, 2213 Inorganic Chemistry, and Lab 4 cr
CHEM 3311 and/or 3312 Introduction to Research (max) 2 cr
CHEM 3331, 3334 Instrumental Analysis, and Lab 4 cr
CHEM 3365, 3365L Synthetic Methods, and Lab 4 cr
CHEM 4407* Inorganic Chemistry II 2 cr
CHEM 4433, 4433L Environmental Chemistry, and Lab 3 cr
CHEM 4453** Modern Experimental Physical Chemistry** 3 cr
CHEM 4481 and/or 4482 Independent Problems (max 2 credits) 2 cr

Courses in Biomedical and Pharmaceutical Sciences
PSCI 2205 Drugs in Society 2 cr
PSCI 3301 Introduction to Pharmacology 3 cr
PSCI 3308 Drug Discovery 3 cr
PSCI 3353 Introduction to Methods in Pharmaceutical Sciences 2 cr
PSCI 3368 Introduction to Toxicology 3 cr
PSCI 4402 Immunopharmacology 2 cr
PSCI 4403 Infectious Diseases and Natural Products 3 cr
PSCI 4407 Pharmacogenomics 2 cr
PSCI 4408 Medicinal Chemistry 3 cr
PSCI 4431 Cancer Biology 3 cr
PSCI 4434 Pharmacokinetics 3 cr
PSCI 4440 Fundamentals of Nanoscience 3 cr

**Prerequisites include CHEM 2211, 2211L, 3351, and 3332.

Biomedical and Pharmaceutical Science Courses
PSCI 2205 Drugs in Society 2 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. A discussion of pharmacological and societal aspects of drugs of abuse. PREREQ: PSCI 3301 or permission of instructor. S
PSCI 4402 Immunopharmacology 2 credits. Examination of drugs affecting the immune system. PREREQ: PSCI 3301 or permission of instructor. S
PSCI 4403 Infectious Diseases and Natural Products 3 credits. 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 4440 Pulmonary and Cardiac Pharmacology 3 credits. Review of the pulmonary and cardiovascular systems including major drug classes affecting these systems. PREREQ: PSCI 3301. F
PSCI 4405 Behavioral Pharmacology 2 credits. 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 credits. Review of the endocrine systems and drugs used for endocrine based disorders. PREREQ: PSCI 3301 or permission of instructor. S

PSCI 4407 Pharmacogenomics 2 credits. 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 credits. 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. S

PSCI 4414 Women’s Health Issues 3 credits. 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 credits. 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 credits. 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 credits. Introduction to conventional chemotherapeutic drugs, novel chemotherapeutic drugs in clinical trials and cancer drug discovery. PREREQ: Permission of instructor. F

PSCI 4433 Physical Pharmacuetics 3 credits. 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 credits. Illustrates the principles of pharmacokinetics and dosing regimen design. PREREQ: Permission of instructor. F

PSCI 4435 Drug Delivery Systems 3 credits. Illustrates principles, processes, and techniques applied to 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 credit. 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 credits. 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 credits. Hands on research experience under the direction of pharmaceutical science faculty including the completion of experiments and analyses of data. May be repeated for a maximum of 8 credits. PREREQ: Permission of instructor. F, S

PSCI 4439 Drug Delivery in the 21st Century 2 credits. 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 credits. 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 credits. 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 credits. 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 44455 Medicinal Chemistry 3 credits. 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 44457 Clinical Chemistry 2 credits. 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 credits. 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 credits. 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 credits. An examination of selected topics in the pharmaceutical sciences. May be repeated for a maximum of 12 credits. PREREQ: Permission of instructor. F, S

PSCI 9937 Professional Student Seminar in Pharmaceutical Sciences 1 credit. Review of current research and literature in the fields of pharmacy. Oral and written reports are required. May be repeated. Restricted to PHARM.D. program. S

PSCI 9938 Independent Problems in Pharmaceutical Sciences 1-4 credits. Advanced students are assigned special laboratory studies on the basis of interest and previous preparation. May be repeated. Restricted to PHARM.D. program. F, S

PSCI 9992 Topics in Pharmaceutical Sciences 1-4 credits. An examination of selected topics in pharmaceutical sciences. Restricted to PHARM.D. program. D

Pharmacy Practice and Administrative Sciences Courses

PPRA 3314 Basic and Applied Pharmacology for Dental Hygiene 2 credits. 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 credits. Overview of the pharmacologic actions and therapeutic implications of the major classes of drugs. Restricted to Nursing, Paramedic, or Respiratory Therapy program. S

PPRA 3335 Smoking Cessation 1 credit. 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 credits. 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 credit. Examination of selected drug classes with the goal of choosing individual agents for mock formulary inclusion. Emphasis on therapeutic variances, available dosage forms and pharmaco-economic 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 credits. Survey of philosophical basis of traditional Chinese medicine, diagnostic techniques, and modalities of treatment. PREREQ: Permission of instructor. S


PPRA 4440 Pharmacoeconomics 2 credits. 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 credit. 200 hours of practical experience in a pharmacy practice environment. Graded S/U. S
PPRA 4491 Topical Seminar in Pharmacy Practice 1-4 credits. Examination of selected topics in Pharmacy Practice and Pharmacy Administration. May be repeated. PREREQ: Permission of instructor. D

PPRA 9907 Complementary and Natural Medicine 2 credits. 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 credits. Principles of personal financial management as applied to the graduating pharmacist. F, S

PPRA 9915 Financial Management of the Community Pharmacy 2 credits. Principles of financial management as applied to the graduating pharmacist. PREREQ: PHAR 9945 and PHAR 9945L. S

PPRA 9988 Independent Problems in Pharmacy Practice 1-2 credits. Advanced students are assigned special studies on the basis of interest and previous preparation. May be repeated. Restricted to PHARM.D. program. F, S

Professional Pharmacy Courses

PHAR 9901 Early Practice Experience I 1 credit. A self-directed, competency-based 200 hours of experiential training in an approved pharmacy practice setting to be completed prior to the start of the second professional year. Graded S/U. PREREQ: First professional year. S

PHAR 9902 Early Practice Experience II 1 credit. 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 9901. S

PHAR 9903 Early Practice Experience III 1 credit. 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 9902. S

PHAR 9905 Introduction to Clinical Problem Solving 2 credits. 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 in Pharmacy I 2 credits. Application of principles in pharmaceutical sciences, pathophysiology and therapeutics to drug therapy issues. PREREQ: Second professional year. F

PHAR 9907 Case Studies in Pharmacy II 2 credits. Application of principles in pharmaceutical sciences, pathophysiology and therapeutics to drug therapy issues. PREREQ: PHAR 9906. S

PHAR 9908 Case Studies in Pharmacy III 2 credits. Application of principles in pharmaceutical sciences, pathophysiology and therapeutics to drug therapy issues. PREREQ: PHAR 9907. F

PHAR 9910 First Year Recitation 0 credit. 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 credit. 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 credit. 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 credit. 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 credit. 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 credit. Scheduled time to attend professional seminars, course reviews and exams. May be repeated. COREQ: Second Professional Year. D

PHAR 9921 Biological Basis of Drug Actions I 3 credits. Basic concepts in pharmacology. PREREQ: First professional year. F

PHAR 9921R Biological Basis of Drug Actions I Recitation 0 credits. F

PHAR 9922 Biological Basis of Drug Actions II 4 credits. Basic concepts in Pharmacology. PREREQ: First professional year. S

PHAR 9922R Biological Basis of Drug Actions II Recitation 0 credit. S

PHAR 9924 Physiochemical Basis of Drug Action 3 credits. 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 credit. F

PHAR 9926 Basic Pharmacetics and Calculations 3 credits. 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 credits. 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 credits. 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 credit. Scheduled time to attend professional seminars, course reviews and exams. May be repeated. COREQ: Third Professional Year. D

PHAR 9931 Health Care I 3 credits. Health care systems, social and behavioral aspects of pharmacy practice, and management. F, S, Su

PHAR 9941 Introduction to Pharmacy Practice and Literature I with Lab 4 credits. 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 Lab 0 credit. 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 credits. 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. F

PHAR 9944 Health Care II 4 credits. Health care systems, social and behavioral aspects of pharmacy practice, and management. F, S, Su

PHAR 9944L Health Care II Lab 0 credits. 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 credits. 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 credits. 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 credits. 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 credits. First of a two semester sequence. Physiology of
PHAR 9949R Human Physiology I Recitation 0 credit. F

PHAR 9951 Pharmacotherapy Lab I 1 credit. Integration of skills and knowledge necessary for providing pharmaceutical care. Emphasizes patient assessment and therapeutic monitoring and management. PREREQ: Second professional year. Graded S/U. D

PHAR 9952 Pharmacotherapy Lab IV 1 credit. 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 credits. Physiology of the respiratory, renal, gastrointestinal, and endocrine systems. Includes studies of acid-base balance. Equivalent to BIOL 4456. PREREQ: BIOL 4449 or PHAR 9949. S

PHAR 9956R Human Physiology II Recitation 0 credit. S

PHAR 9961 Pharmacotherapy I 2-5 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 Pharmacotherapeutics 2 credits. Emphasis on the important therapeutic issues surrounding common disease states including small group discussions, journal clubs, reviews of practice guidelines and interactive teaching methods. PREREQ: Third professional year. D

PHAR 9971R Capstone Recitation 0 credit. Recitation for PHAR 9971 Capstone Pharmacotherapeutics. D

PHAR 9981 Advanced Pharmacy Practice Experience 7 credits. Students are assigned to pharmacy practice sites including community, hospital, 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 I 1 credit. 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

Nontraditional Doctor of Pharmacy Courses

PDNT 9985 Introduction to Clinical Problem Solving 1 credit. 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 credits. 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 credit. 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 1-2 credits. 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 2-4 credits. 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 credits. 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 credits. 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 2-4 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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

**Kasiska School of Health Professions**

Interim Associate Dean and Director: Tracy J Farnsworth, MHSA, MBA

The Kasiska School of Health Professions is comprised of various departments and programs offering professional education that leads to the following undergraduate and graduate degrees and certificates:

**Department of Counseling**
- Master of Counseling degrees with majors in Marital, Couple, and Family Counseling; Mental Health Counseling; School Counseling; and Student Affairs Counseling
- Doctor of Philosophy in Counselor Education and Counseling

**Dietetics Program**
- Bachelor of Science degree in Dietetics
- Post graduate Dietetic Internship Certificate

**Health Education and Promotion Program**
- Bachelor of Arts degree in Health Education
- Bachelor of Science degree in Health Education
- Master of Science degree in Health Education

**Health Care Administration Program**
- Bachelor of Science degree in Health Care Administration (which includes a Minor in Business Administration)
- Bachelor of Business Administration degree with a major in Health Care Information Systems Management

**Master of Public Health Program**
- Master of Public Health

**Medical Laboratory Science Program**
- Bachelor of Science degree in Medical Lab Science
- Master of Science degree in Medical Lab Science

**Paramedic Science Program**
- Associate of Science degree in Paramedic Science

**Radiographic Science Program**
- Associate of Applied Science degree in Radiographic Science
- Bachelor of Science degree in Radiographic Science

Each curriculum combines a core of liberal arts and professional subjects with clinical or administrative experience.

**Mission and Goals**

The primary mission of the Kasiska School of Health Professions (KSHP) is to enhance the quality of life of the residents of Idaho through the education of students in the health professions. Our mission is facilitated through excellence in research, community service, innovative teaching, and rendering strong leadership on health professions issues. KSHP is part of the ISU Division of Health Sciences (DHS) which has established the following goals:

- **Goal 1** - To assure continued viability for DHS programs and services.
- **Goal 2** - To create an environment conducive to inquiry.
- **Goal 3** - To continue commitment to excellence and innovation in education in ways that effectively improve the health care delivery system.
- **Goal 4** - To expand the DHS image, presence, and influence locally and beyond.
- **Goal 5** - To expand University Clinics.

The Kasiska School of Health Professions is organized into several departments and programs which offer programs of professional education leading to Associate of Applied Science degree in Radiographic Science; Associate of Science degree in Paramedic Science; Bachelor of Arts degree in Health Education; Bachelor of Science degrees in Dietetics, Health Care Administration, Health Education, Radiographic Science, and Medical Laboratory Science; Master of Counseling degrees with majors in Marital, Couple, and Family Counseling, Mental Health Counseling, School Counseling, and Student Affairs Counseling; Master of Public Health; Master of Science degrees in Medical Laboratory Science and in Health Education; and a Doctor of Philosophy in Counselor Education and Counseling. The Dietetic Internship Certificate Program is offered at the postgraduate level. Each curriculum combines a core of liberal arts and professional subjects with clinical experience.

For the purpose of providing opportunities for students to obtain appropriate clinical experience, the Department of Counseling operates the Family Education and Counseling Center.

Outreach programming includes the Master of Counseling degrees in Mental Health Counseling and in Marital, Couple, and Family Counseling; Master of Public Health, and Master of Science in Medical Laboratory Science, all in Meridian.

**Department of Counseling**

Chair and Professor: Hill
Professors: Feit, Kleist, Vereen
Associate Professors: Crews, Horn, Paulson
Assistant Professors: Jones, Kostohryz
Clinical Assistant Professor: Singarajah
Adjunct Faculty: Bennett, Bolinger, Erickson, Harris, Kase, Schmidt, Thompson
Emeriti: Allen, Edgar, 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; Marital, Couple and Family Counselors; Mental Health Professions Counselors; and Student Affairs Counselors. The 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; Marital, Couple and Family Counselors; Mental Health Professions Counselors; and Student Affairs Counselors.
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 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 Department of Counseling has curricular and professional objectives for each student. Each of these objectives has specific outcome measures.

Curricular Objectives:
1. Students will have knowledge of Human Growth and Development so that they can understand the nature and needs of individuals at all developmental levels.
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 basic statistics.
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:
9. Students will have knowledge of Social/personality theory), sociology, and the application of counseling, School Counseling, Mental Health Counseling, School Counseling, and Student Affairs Counseling) will obtain the appropriate state licensure.
10. Students in all majors(Marital, Couple, and Family Counseling, Mental Health Counseling, School Counseling, and Student Affairs Counseling) will gain an appreciation of counseling.

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.), Marital, Couple, and Family Counseling (M.Coun.); 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: Marital, Couple, and Family Counseling (M.Coun.), 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. Because of limited class sizes and the large number of applicants, admission into the Department of Counseling is highly competitive.

Application forms are available after August 15 from the Department of Counseling and online. Application deadline is February 15 for the Master of Counseling program; January 15 for the Ph.D. program. If you are interested in admission and the deadlines have passed, please contact the Department. A secondary admission process may be conducted.

A maximum of 20-25 students are admitted to the Master of Counseling program each year on the Pocatello campus and 10-12 are admitted on the Idaho State University-Meridian campus. Classes begin in the Fall semester each year.

Counseling Courses
COUN 1150 Career and Life Planning 1 credit. 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
Dietetics

Director and Clinical Associate Professor: McKnight
Assistant Professors: Blanton, Weeden
Clinical Associate Professors: Grim, Schneider
Emerita: Dundas

The Dietetics Program offers a baccalaureate degree in dietetics and post-graduate dietetic internships.

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.

The Dietetic Internship (DI) Program is also accredited by the Accreditation Council for Education in Nutrition and Dietetics of the Academy of Nutrition and Dietetics. The DI Program provides a supervised postgraduate practical experience preparing interns for successful completion of the registration exam and entry-level practice.

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 2008 Accreditation Self Study 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.

1. Program Goal One: Prepare students to perform competently in a dietetic internship (DI) in preparation to be an entry-level dietitian.

Outcome Measures

a. 75% of graduates who apply, will be accepted to a dietetic internship.

b. 85% of graduates will pass the registration exam upon the first try based upon a five year average.

c. 90% of graduates will pass the registration exam upon the third try (combined 1st time and repeat test takers) based upon a five year average.

d. 90% of responding graduates will indicate a satisfactory or better response that the DPD program prepared them for their supervised practice experience and career as an R.D.

e. 75% of graduates who have finished their supervised practice experience and are seeking employment will be employed within 6 months of passing the RD exam.

f. 90% of graduates from this program will receive satisfactory ratings or better on their knowledge and skill of dietetics from their employer or DI director.

2. Program Goal Two: Provide didactic and field experiences for students by continuing cooperative relationships with community, clinical and food
service 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

a. Students will be assigned learning experiences in a minimum of two different experiential sites for both food service, community courses and one experiential site for medical nutrition therapy courses.

b. 90% of responding graduates will indicate “satisfactory” or better that the DPD program prepared them for their supervised practice experience and career as a dietitian.

c. 90% of graduates from this program will receive “satisfactory” ratings or better from their employer or DI director.

d. 1/3 of DAC members will consist of external constituents and/or preceptors from facilities providing learning experiences to dietetic students.

e. 10% of graduates will achieve advanced level practice or have a leadership role in a professional organization within 5 years of graduation.

3. Program Goal Three: Provide recruitment and guidance counseling for high school and college students who are interested in the profession of dietetics, as well as retain and mentor excellent students who are in the program.

Outcome Measures

a. 90% of students who enter the DPD will complete it within 4 semesters of being admitted to the DPD program.

b. 75% of all dietetics majors will obtain advising once per year.

c. 90% of responding graduates will indicate “satisfactory” or better score with respect to encouragement, respect, motivation, advising and support provided by the program faculty and preceptors.

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: CHEM 1101, 1102, 1103; BIOL 1101, 2221, 2221L, 3301, 3302; ENGL 1101, 1102; and NTD 1104, 2204, 2239.

3. Completion of ISU General Education Requirements is strongly suggested prior to applying and must be completed before graduation.

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, along with 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 courses 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.

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.)

Applications should be sent to:
Laura McKnight, MPH, RD, LD
Director, Didactic Program in Dietetics
Kasiska School of Health Professions
Idaho State University
921 S. 8th Ave. Stop 8117
Pocatello, ID 83209-8117

Pre-Dietetics Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1101, 1101L</td>
<td>Biology I, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 2221, 2221L</td>
<td>Introductory Microbiology, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 3301, 3301L</td>
<td>Anatomy and Physiology and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 3302, 3302L</td>
<td>Anatomy and Physiology and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>CHEM 1101</td>
<td>Introduction to General Chemistry</td>
<td>3 cr</td>
</tr>
<tr>
<td>CHEM 1102, 1103L</td>
<td>Introduction to Organic and Biochemistry, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>COMM 1101</td>
<td>Principles of Speech</td>
<td>3 cr</td>
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<tr>
<td>ECON 2201</td>
<td>Principles of Macroeconomics</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 1101</td>
<td>English Composition</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 1102</td>
<td>Critical Reading and Writing</td>
<td>3 cr</td>
</tr>
<tr>
<td>HCA/HE 2210</td>
<td>Medical Terminology and Communication</td>
<td>2 cr</td>
</tr>
<tr>
<td>MATH 1108</td>
<td>Intermediate Algebra</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 1153</td>
<td>Introduction to Statistics</td>
<td>3 cr</td>
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<tr>
<td>NTD 1101</td>
<td>Introduction to Dietetics</td>
<td>1 cr</td>
</tr>
<tr>
<td>NTD 1104</td>
<td>Foods</td>
<td>3 cr</td>
</tr>
<tr>
<td>NTD 2204</td>
<td>Meal Management</td>
<td>2 cr</td>
</tr>
<tr>
<td>NTD 2239</td>
<td>Nutrition</td>
<td>3 cr</td>
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<tr>
<td>PSYC 1101</td>
<td>Introduction to General Psychology</td>
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<tr>
<td>SOC 1101</td>
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Didactic Program in Dietetics Required Courses

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<th>Course</th>
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<tr>
<td>ACCT 3303</td>
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<tr>
<td>ENGL 3307</td>
<td>Professional and Technical Writing</td>
<td>3 cr</td>
</tr>
<tr>
<td>MGT 3312</td>
<td>Individual and Organizational Behavior</td>
<td>3 cr</td>
</tr>
<tr>
<td>NTD 3360</td>
<td>Medical Nutrition Therapy I</td>
<td>3 cr</td>
</tr>
<tr>
<td>NTD 3360L</td>
<td>Medical Nutrition Therapy I Laboratory</td>
<td>2 cr</td>
</tr>
<tr>
<td>NTD 3361</td>
<td>Medical Nutrition Therapy II</td>
<td>3 cr</td>
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<tr>
<td>NTD 3361L</td>
<td>Medical Nutrition Therapy II Laboratory</td>
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<tr>
<td>NTD 3360</td>
<td>Nutrition Through the Lifecycle</td>
<td>3 cr</td>
</tr>
<tr>
<td>NTD 3312</td>
<td>Quantity Foods Laboratory</td>
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<tr>
<td>NTD 3312L</td>
<td>Quantity Foods Laboratory</td>
<td>1 cr</td>
</tr>
<tr>
<td>NTD 4407</td>
<td>Principles of Community Nutrition</td>
<td>3 cr</td>
</tr>
<tr>
<td>NTD 4408</td>
<td>Applications in Community Nutrition</td>
<td>3 cr</td>
</tr>
<tr>
<td>NTD 4410</td>
<td>Food Service Systems Management</td>
<td>3 cr</td>
</tr>
<tr>
<td>NTD 4410L</td>
<td>Food Service Systems Management Laboratory</td>
<td>2 cr</td>
</tr>
<tr>
<td>NTD 4457</td>
<td>Experimental Foods</td>
<td>3 cr</td>
</tr>
<tr>
<td>NTD 4461</td>
<td>Nutritional Biochemistry I</td>
<td>3 cr</td>
</tr>
<tr>
<td>NTD 4470</td>
<td>Dietetics Senior Seminar</td>
<td>2 cr</td>
</tr>
<tr>
<td>NTD 4485</td>
<td>Nutritional Biochemistry II</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

In addition:
Electives to total 120 credits. See advisor regarding class sequencing.
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.

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 3.0 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/dietet ics/dietetic-internship-apply.shtml. A $50 non-refundable fee will be charged for processing applications.

Program Goals and Outcomes

1. Program Goal #1: Prepare interns to become professionally competent registered dietitians through a comprehensive supervised practice experience.

   Outcome measures:
   a. Ninety percent of interns will complete the program.
   b. Ninety percent of interns who complete the program will take the exam within 1 year of completion.
   c. Ninety percent of interns who take the RD exam will pass on the first time.
   d. Mean registration exam scores will be greater than or equal to the national average.
   e. Ninety percent of working RD’s will be satisfied that the DI program adequately prepared them for careers in dietetics.
   f. Ninety percent of RD’s will receive satisfactory ratings from employers.

2. Program Goal #2: Develop effective and self-reliant professionals who are committed to lifelong learning.

   Outcome Measures:
   a. Interns will rate the session on CDR Professional Development Portfolio as useful or higher than or equal to 80%.
   b. Ten percent of the alumni will seek graduate degrees, obtain specialty certification or have a leadership role in a professional organization.

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, and 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 and Twin Falls, no University housing is available.

Transportation

Each student should have his or her own car or, at least, access to one. Some rotation sites are up to fifty miles away (e.g. Pocatello to Idaho Falls).

Liability for safety in travel to and from assigned rotation sites will rest on the individual dietetic intern. In no way does the Dietetic Internship Program or Idaho State University assume liability for interns for safety in travel to and from assigned rotation sites.

Send POCATELLO Application to:
Idaho State University
Andrea Grim, MS, RD, LD
Kasiska School of Health Professions
921 S. 8th Ave. Stop 8117
Pocatello, ID 83209-8117

Send Meridian Application to:
Idaho State University - Meridian
Ruth Schneider, MPH, RD, LD
1311 E Central Dr.
Meridian, ID 83642

Required Courses*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Description</th>
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<tr>
<td>NTD 4486</td>
<td>Dietetic Internship Seminar I</td>
<td>6 cr</td>
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<tr>
<td>NTD 4487</td>
<td>Dietetic Internship Seminar II</td>
<td>6 cr</td>
</tr>
<tr>
<td>NTD 4488</td>
<td>Internship in Dietetics I</td>
<td>11 cr</td>
</tr>
<tr>
<td>NTD 4489</td>
<td>Internship in Dietetics II</td>
<td>11 cr</td>
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</table>

* A $1,350.00 course fee will be applied in addition to tuition for each NTD 4488 and NTD 4489.

Nutrition and Dietetics Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NTD 1101</td>
<td>Introduction to Dietetics I</td>
<td>1 cr</td>
</tr>
</tbody>
</table>
NTD 1104 Foods 3 credits. Fundamental processes underlying food preparation with emphasis on the chemical and physical properties of foods. Lecture and laboratory. F

NTD 1139 Consumer Nutrition 3 credits. 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 2204 Meal Management 2 credits. 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 credits. 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. Satisfies Objective 5 of the General Education Requirements. PREREQ: CHEM 1101; CHEM 1102 recommended. F, S

NTD 3300 Medical Nutrition Therapy I 3 credits. 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 credits (6 contact 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 3300L. F

NTD 3301 Medical Nutrition Therapy II 3 credits. 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: “C” or better in NTD 3300 and NTD 3300L. COREQ: NTD 3300L. S

NTD 3301L Medical Nutrition Therapy II Lab 2 credits. 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: “C” or better in NTD 3300 and NTD 3300L. COREQ: NTD 3301L. S

NTD 3312 Quantity Foods 2 credits. 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: “C” or better in NTD 1104 and NTD 2204. COREQ: NTD 3312L. F

NTD 3312L Quantity Foods Laboratory 1 credit. Practical application of food production methods in various facilities. COREQ: NTD 3312. F

NTD 3340 Nutrition for Health Professionals 3 credits. 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 1111. F, S

NTD 3360 Nutrition Through the Lifecycle 3 credits. Nutrition in pregnancy, lactation, infancy, childhood, adolescence, adulthood and senior adulthood. Physiological changes during the lifecycle and changing nutrient needs. PREREQ: “C” or better in NTD 2239. F

NTD 4407 Principles of Community Nutrition 3 credits. 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: “C” or better in NTD 3360, or NTD 2239 and permission of instructor. F

NTD 4408 Applications in Community Nutrition 3 credits. 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: “C” or better in NTD 4407. S

NTD 4409 Professional Readings 1-3 credits. 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 credits. Principles and concepts of food service management planning, organization, and controls. Development of skills through projects in food service facilities. PREREQ: “C” or better in NTD 3312 and NTD 3312L. COREQ: NTD 4410L. S

NTD 4410L Food Service Systems Management Laboratory 2 credits. Practical application of food service management skills in various facilities. COREQ: NTD 4410L. S

NTD 4411 Food Service Systems Management Laboratory 2 credits. Practical application of food service management skills in various facilities. COREQ: NTD 4410L. S

NTD 4412 Foods 3 credits. 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 4457 Experimental Foods 3 credits. 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 4458 Nutritional Biochemistry II 3 credits. 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: “C” or better in NTD 3360, or NTD 2239 and permission of instructor. S

NTD 4461 Nutritional Biochemistry I 3 credits. 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 credits. 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 credits. 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 credits. Human metabolism in health and disease. Emphasizes interrelationships among hormones, carbohydrates, proteins, lipids, vitamins and minerals within tissues and organs. PREREQ: “C” or better in NTD 4461 or permission of instructor. S

NTD 4486 Dietetic Internship Seminar I 6 credits. Advanced studies in given areas of community nutrition, medical nutrition and food systems management. Students investigate and present current research problems. Oral and written reports required. COREQ: NTD 4486. S

NTD 4488 Dietetic Internship Seminar II 6 credits. Advanced studies in given areas of community nutrition, medical nutrition and food systems management. Students investigate and present current research problems. Oral and written reports required. COREQ: NTD 4489. S

NTD 4488 Internship in Dietetics I 11 credits. 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 4466. F

NTD 4489 Internship in Dietetics II 11 credits. 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 4488. COREQ: NTD 4487. S

NTD 4492 Special Problems in Nutrition and Dietetics 1-2 credits. 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 credit. This course reviews the role of nutrition in attaining and maintaining optimal 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
Health Care Administration Program

Program Director and Assistant Professor:
Hermanson
Assistant Professor: Farnsworth
Adjunct Faculty: Adams, Huerta, Wright
Emeritus Faculty: Kritsky

Our Mission
The Health Care Administration Program provides quality education and lifelong learning opportunities to current and future healthcare leaders in Idaho. We support Idaho State University’s Mission as the center for education of health professionals in the State of Idaho by maximizing value to our students and stakeholders, and to our state, in the enhancement of the knowledge and ability of healthcare professionals to lead their organizations, to serve their communities and, in turn, to improve the health status of their communities.

Bachelor of Science in Health Care Administration

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 provided below:

Admission and Program Graduation Requirements
Application forms for admission to the major in health care administration can be accessed online 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, (partially satisfies Objective 6), HCA 1115, ENGL 1102 (Objective 1), COMM 1101 (Objective 2), and MATH 1143 (Objective 3).

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.

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 49 cr

Health Care Administration Core Requirements

| HCA 1115 | U.S. Health System | 3 cr |
| HCA 2215 | Healthcare Leadership | 3 cr |
| HCA 3330 | Health Information Systems | 3 cr |
| HCA 3340 | Healthcare Policy | 3 cr |
| HCA 3384 | Human Resource Management | 3 cr |
| HCA 4453 | Healthcare Finance | 3 cr |
| HCA 4465 | Health Care Operations and Quality | 3 cr |
| HCA/HE 4473 | Administrative Internship | 4 cr |
| HCA 4475 | Health Law and Bioethics | 3 cr |

Sub-total hours 49 cr

Business Core Requirements

| ACCT 2201 | Principles of Accounting I | 3 cr |
| ACCT 2202 | Principles of Accounting II | 3 cr |
| BA 3301 | Professional Development Seminar | 1 cr |
| CIS 3301 | Information Systems and Problem Solving | 3 cr |
| FIN 3315 | Corporate Financial Management | 3 cr |
| MGT 2216 | Business Statistics I | 3 cr |
| MGT 2217 | Business Statistics II | 3 cr |
| MGT 3312 | Individual and Organization Behavior | 3 cr |
| MGT 3329 | Operations/Production Management | 3 cr |
| MKTG 3325 | Basic Marketing Management | 3 cr |

Sub-total hours 28 cr

Other Required Core Courses

| ECON 2202 | Principles of Microeconomics | 3 cr |
| ECON 3303 | Health Economics | 3 cr |
| MATH 1143 | College Algebra | 3 cr |
| HE 3383 | Epidemiology | 3 cr |

Sub-total hours 12 cr

HCA Program Total Hours: 120
Bachelor of Business Administration in Health Care Information Systems Management

The Bachelor of Business Administration Degree in Health Care Information Systems Management is delivered in cooperation with the Idaho State University College of Business. The degree is designed to enable graduates to enter careers in information systems support in healthcare organizations. Upon graduation, students will receive a Major in Computer Information Systems in addition to the Health Care Information Systems Management Major. Information systems play an increasingly important role in the burgeoning healthcare field. The Health Care Information Systems Management (HISM) degree is intended to develop the skills necessary to manage information systems in a healthcare environment. Combining courses in healthcare administration, general business, and computer information systems, the HISM degree prepares students to work in hospitals, health clinics, and doctor’s offices, as well as other health-related organizations.

Required Courses:

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<tr>
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<th>Course Name</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>CIS 1120</td>
<td>Foundations of Computer Programming</td>
<td>3 cr</td>
</tr>
<tr>
<td>CIS 2285</td>
<td>Introduction to Software and Systems Architecture</td>
<td>3 cr</td>
</tr>
<tr>
<td>CIS 4403</td>
<td>Systems Analysis and Design</td>
<td>3 cr</td>
</tr>
<tr>
<td>CIS 4407</td>
<td>Database Design and Implementation</td>
<td>3 cr</td>
</tr>
<tr>
<td>CIS 4411</td>
<td>Intermediate</td>
<td>3 cr</td>
</tr>
<tr>
<td>CIS 4425</td>
<td>Network and Network and Database</td>
<td>3 cr</td>
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<tr>
<td>HCA 1115</td>
<td>Communications Systems</td>
<td>3 cr</td>
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<tr>
<td>HCA 3330</td>
<td>U.S. Health System</td>
<td>3 cr</td>
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<tr>
<td>HCA 4460</td>
<td>Operations and Quality</td>
<td>3 cr</td>
</tr>
<tr>
<td>HCA 4489</td>
<td>Health Care Information Systems Practicum</td>
<td>3 cr</td>
</tr>
<tr>
<td>MGT 4482</td>
<td>Project Management</td>
<td>3 cr</td>
</tr>
<tr>
<td>TOTAL:</td>
<td></td>
<td>33 cr</td>
</tr>
</tbody>
</table>

Health Care Administration Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCA 1110</td>
<td>Introduction to the Allied Health Professions</td>
<td>3 credits</td>
</tr>
<tr>
<td></td>
<td>3 credits. Introduction to the allied health professions with emphasis on interrelationships and the team approach to health care.</td>
<td></td>
</tr>
<tr>
<td>HCA 1115</td>
<td>U.S. Health System</td>
<td>3 credits</td>
</tr>
<tr>
<td></td>
<td>An introductory, comprehensive overview of the healthcare industry, health and disease, health professions, institutions, populations, and reimbursement, addressed from the three point perspective of history, terminology, and current issues.</td>
<td></td>
</tr>
</tbody>
</table>

HCA 2210 Medical Terminology and Communication 2 credits. 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 credits. This course actively teaches the relational, operational, and analytical skills key to success in health management. S

HCA 3330 Health Information Systems 3 credits. An overview of 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 credits. 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 credits. 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 credits. 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 credits. Topics related 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 credits. The application of financial management principles, practices, and techniques used in healthcare organizations. An understanding and analysis of how these financial tools are used in decision making and how they are integrated into the healthcare organization’s planning process. PREREQ: ACCT 2202 and FIN 3315 or their equivalents. S

HCA 4460 Operations and Quality 3 credits. Course examines the manager’s role in improving healthcare quality and outcomes, including clinical and organizational improvement, technology assessment, and quality improvement practices. PREREQ: All HCA 3000 level courses and MGT 3329, or permission of instructor. S

HCA 4465 Health Care Operations and Quality 3 credits. 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 credits. Introduction to basic marketing management issues as they pertain to healthcare. Current marketing trends in the health care marketplace. Consumer orientation, health care marketing plans, and strategy development. Equivalent to HE 4473. Restricted to HCA major. S

HCA 4475 Health Law and Bioethics 3 credits. 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 credits. Student selects an area of special interest through independent study. A report will be required giving results. May be repeated for a maximum of 6 elective credits. PREREQ: HCA major. D

HCA 4489 Health Care Information Systems Practicum 3 credits. 8 hours per week under the direction of the Department of Family Medicine, with a term project.* Prerequisite: HCA majors: Permission of instructor. F, S, Su

HCA 4495 Administrative Internship 4 credits. 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

*Some facilities may require a background check. When required, this check will be conducted at the student’s expense.

Health Education and Promotion

Director and Professor: McAleese
Professor: Rankin
Assistant Professors: Batacan, Olsen
Emeriti: Kearns, Kritsky, 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.
Bachelor of Arts or Bachelor of Science in Health Education

The undergraduate program in health education is designed to prepare students to teach preventive health strategies. More specifically, they learn to facilitate the voluntary adoption of actions which are conducive to the health of individuals, groups, or communities.

Graduates with a baccalaureate degree in health education are eligible to take the Certified Health Education Specialist (CHES) national certification offered through NCHEC. According to NCHEC, the benefits of the CHES designation include: establishes a national standard, attests to the individual’s knowledge and skills, assist employers in identifying qualified health education 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).

Students in the Health Education Program may choose from three emphasis or options: 1) school health emphasis. 2) community/worksite health emphasis, or 3) addiction studies option. Teaching and non-teaching minors are available. Graduate degrees are offered through a Master of Public Health (M.P.H.).

Health Education and Promotion Program Goals and Objectives

Coursework in the Idaho State University undergraduate health education program prepares students to work with individuals, groups, or communities and to be able to:

1. Assess needs, assets and capacity for health education
2. Plan health education
3. Implement health education
4. Conduct evaluation and research related to health education
5. Administer and manage health education
6. Serve as a health education resource person
7. Communicate and advocate for health and health education

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:
   - BIOL 1101, 1101L Biology 1, and Lab 4 cr
   - CIS 1101, 1101L Digital Resources for Information Literacy, and Lab 3 cr
   - COMM 1101 Principles of Speech 3 cr
   - ENGL 1102 Critical Reading and Writing 3 cr
   - HE 2200 Promoting Wellness 3 cr
   - HE 2221 Introduction to Health Education 3 cr
   - MATH 1153 Introduction to Statistics 3 cr
   - NTD 1139 Consumer Nutrition 3 cr
   - NTD 2239 Nutrition 3 cr
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.

Major in Health Education

Students choosing to major in health education must complete all University General Education Requirements, 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 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 Academic Information).

Courses which partially or wholly fulfill both General Education Objectives and major requirements are:

   - BIOL 1101, 1101L Biology 1, and Lab 4 cr
   - CIS 1101, 1101L Digital Resources for Information Literacy, and Lab 3 cr
   - COMM 1101 Principles of Speech 3 cr
   - ENGL 1102 Critical Reading and Writing 3 cr
   - MATH 1153 Introduction to Statistics 3 cr
   - PSYC 1101 Introduction to General Psychology 3 cr

2. Completion of the following required courses:

   - ENGL 3307 Professional and Technical Writing 3 cr
   - NTD 1139 Consumer Nutrition 3 cr
   - NTD 2239 Nutrition 3 cr
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 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.
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:

- HE 4430 Curriculum and Methods in Health Education 3 cr
- HE 4442 Environmental Health and Health Education 3 cr
- HE 4443 Substance Abuse and Health Education 3 cr
- HE 4445 Human Sexuality and Health Education 3 cr

Students in the School Health Emphasis must also complete the Professional Education Core (44 credits) from the College of Education (see Secondary Teacher Education requirements).

TOTAL CREDITS FOR HEALTH EDUCATION DEGREE: 42-51 cr

Health Education Teaching Minor (21 credits)

**Prerequisites:**
Admission to Teacher Education Program Admission to Health Education Program

**Required Courses:**

- HE 2200 Promoting Wellness 3 cr
- HE 2221 Introduction to Health Education 3 cr
- HE 3340, 3340L Fitness and Wellness Programs, and Lab 3 cr
- HE 3342 Stress and Emotional Health 3 cr
- HE 4420 Human Sexuality and Health Education 3 cr

**Two of the following three courses:**

- HE 4442 Environmental Health and Health Education 3 cr
- HE 4443 Substance Abuse and Health Education 3 cr
- HE 4445 Human Sexuality and Health Education 3 cr

TOTAL 21 cr

Health Education Nonteaching Minor (21 credits)

**Required Courses:**

- HE 2200 Promoting Wellness 3 cr
- HE 2221 Introduction to Health Education 3 cr
- HE 3340, 3340L Fitness and Wellness Programs, and Lab 3 cr
- HE 3342 Stress and Emotional Health 3 cr
- HE 4420 Human Sexuality and Health Education 3 cr

TOTAL 21 cr

**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.

- HE 2230 Introduction to Addictions 3 cr
- HE 2232 Helping Theories 3 cr
- HE 2233 Harmful and Illicit Substances 3 cr
- HE 2234 Bloodborne Illness 1 cr
- HE 2235 Chemical Dependency and the Family 3 cr
- HE 3310 Screening and Assessment of Substance Abuse 3 cr
- HE 3311 Case Management of Substance Abuse 3 cr
- HE 3312 Ethics for the Addictions Counselor 3 cr
- HE 3313 Practicum for the Chemical Dependency Counselor 3 cr
HE 2211 Health Education Methods Elementary 1 credit. 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 2211 Introduction to Health Education 3 credits. 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 credits. 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 credits. 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 credits. 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 credit. 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 credits. Provides an overview of functional and dysfunctional families, the impact of chemical dependency on individual family systems, and treatment modalities and appropriate referral resources. D

HE 2270 Peer Education in Health 2 credits. 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 credits. 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 credit. 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 3310 Screening and Assessment of Substance Abuse 3 credits. 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 credits. Provides a basic understanding of case management philosophy and basic case management skills within an addictions framework. Promotes competency and ethical responsibilities. D

HE 3312 Ethics for the Addictions Counselor 3 credits. 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 credits. 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 credits. 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 credits. 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 credits.

HE 3342 Stress and Emotional Health 3 credits. Stress response, causes of stress, and stress management techniques/strategies. Effect of the mind on the body relative to various disease states. Includes the connection between spirituality and health; and emotional health-related topics such as anger, depression and stress, and sleep deprivation. F

HE 3383 Epidemiology 3 credits. 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 credits. Contemporary health and wellness issues emphasizing education interventions and application. Topics may include, but are not limited to, 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 credits. 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 Evaluation 3 credits. 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 credits. 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 credits. Curriculum planning, implementation, methodology, and evaluation 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 credits. 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 credits. The application of research and evaluation models for decision-making programs and policy development of community health education interventions. Focus on the individual, family, and social network levels of practice. PREREQ: HE 4420. S, D

HE 4442 Environmental Health and Health Education 3 credits. 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 credits. Study of the multifaceted nature of human sexuality with an emphasis on school and community prevention programs. F, D

HE 4445 Human Sexuality and Health Education 3 credits. 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 credits. 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 credits. 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 up to 6 credits. F, S, Su

HE 4490 Practicum—Health Education 4 credits. 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. PREREQ OR COREQ: HE 2200, HE 2221, and either NTD 1139 or NTD 2239. Graded S/U. F, S, Su
**Medical Laboratory Science**

**Interim Director and Clinical Professor:** Spiegel  
**Clinical Associate Professors:** Galindo, Nehr-Kanet  
**Assistant Professor:** Ma

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 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.

**Admission Criteria**

Admissions are competitive. The deadline for entrance 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 each location (Meridian and Pocatello campuses) 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 (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.

**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** 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 on-line. 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.

**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, 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 (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, a minimum of 36 credits—see the Academic Information section of this Catalog). The following Objective courses also satisfy specific program requirements:

   Objective 3: MATH 1153—Introduction to Statistics

   Objective 5 is met by the program’s biology and chemistry requirements.

2. Completion of the following required courses:

   - MATH 1143 College Algebra 3 cr
   - BIOL 2206, 2207 Cell Biology, and Lab 4 cr
   - BIOL 2235, 2235L General Microbiology, and Lab 4 cr
   - BIOL 3301, 3301L, 3302, 3302L Anatomy and Physiology, and Labs 8 cr
   - BIOL 3358 Genetics 3 cr
   - BIOL 4451 Immunology 3 cr
   - BIOL 4463 Pathophysiology 4 cr OR
   - BIOL 3305 Introduction to Pathobiology 3 cr

   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:**

- MLS 4410 Phlebotomy Practicum 1 cr
- MLS 4412 Urinalysis and Body Fluids 1 cr
- MLS 4414 Hematology and Hemostasis 1 cr
- MLS 4416 Medical Microbiology I 3 cr
- MLS 4418 Medical Chemistry and Instrumentation 3 cr
- MLS 4420 Medical Immunology 2 cr
- MLS 4422 Basic Concepts in Transfusion Medicine 2 cr
- MLS 4424 Medical Laboratory Fundamentals 1 cr
- MLS 4431 Medical Microbiology II 3 cr
- MLS 4433 MLS Management and Education 2 cr
- MLS 4435 Molecular Diagnostics 3 cr
- MLS 4437 Critical Analysis of Lab Information 3 cr
- MLS 4439 Advanced Concepts in Transfusion Medicine 2 cr
- MLS 4441 MLS Research* 1-3 cr
- MLS 4455 MLS Student Practicum Practices 2 cr
- MLS 4490 MLS General Site Practicum I-6 cr
- MLS 4491 Microbiology Practicum 2 cr
- MLS 4492 Hematology and Urinalysis Practicum 2 cr
- MLS 4493 Transfusion (Blood Bank) Practicum 1 cr
- MLS 4494 Chemistry and Automation Practicum 1 cr

*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.

**Medical Laboratory Science Courses**

- MLS 4410 Phlebotomy Practicum 1 credit.
  Introduction to the theory and procedures for the practice of phlebotomy and simple laboratory testing. Part of Medical Laboratory Science Core Curriculum, also suited for other health care providers. PREREQ: Acceptance into Medical Laboratory Science Program. F

- MLS 4412 Urinalysis and Body Fluids 1 credit.
  Fundamental principles of urine and body fluid analysis with correlation of laboratory methods and practice. PREREQ: Acceptance into Medical Laboratory Science Program. F

- MLS 4414 Hematology and Hemostasis 3 credits.
  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 Medical Laboratory Science Program. F

- MLS 4416 Medical Microbiology I 3 credits.
  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 Medical Laboratory Science Program. F

MLS 4418 Medical Chemistry and Instrumentation 3 credits. 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 Medical Laboratory Science Program. F

MLS 4420 Medical Immunology 2 credits. 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 Medical Laboratory Science Program. F

MLS 4422 Basic Concepts in Transfusion Medicine 2 credits. 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 Medical Laboratory Science Program. F

MLS 4424 Medical Laboratory Fundamentals 1 credit. Theory and application of basic techniques and instruments used in all areas of medical laboratories. PREREQ: Acceptance into Medical Laboratory Science Program. F

MLS 4431 Medical Microbiology II 3 credits. Advanced topics in medical microbiology, including application of laboratory techniques to the identification and evaluation of medically important pathogens, and correlations with disease states. Graduate students will prepare, conduct and evaluate case study sessions. PREREQ: MLS 4416 and acceptance into Medical Laboratory Science Program. S

MLS 4433 Medical Laboratory Science Management and Education 2 credits. 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 Medical Laboratory Science Program. S

MLS 4435 Molecular Diagnostics 3 credits. A comprehensive overview of the fundamental principles of medical molecular diagnostics and use of molecular techniques in the diagnosis of disease. Topics include: nucleic acid structure and function, genetics, DNA chemistry, introduction to nucleic acid isolation, identification and amplification techniques. Graduate students will prepare, conduct, and evaluate case study sessions. PREREQ: Acceptance into Medical Laboratory Science Program. S

MLS 4437 Critical Analysis of Lab Information 3 credits. Evaluation of clinical laboratory values with emphasis on advanced methods, specialized statistics, algorithm building, and clinical correlations. Graduate students will prepare, conduct and evaluate case study sessions. PREREQ: Acceptance into Medical Laboratory Science Program. S

MLS 4439 Advanced Concepts in Transfusion Medicine 2 credits. 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 Medical Laboratory Science Program. S

MLS 4441 MLS Research 1-3 credits. Individual theory and application of related topics associated with the medical laboratory. May be repeated for up to 3 credits. PREREQ: Acceptance into Medical Laboratory Science Program. S

MLS 4455 MLS Student Laboratory Practices 2 credits. 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 Medical Laboratory Science Program. S

MLS 4482 Independent Problems in MLS 1-3 credits. 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 credits. 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 credits. 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 credits. 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 credit. 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 credit. Structured medical laboratory experiences as determined by Medical Laboratory Science faculty. PREREQ: Permission of Program Director. Graded S/U: F, S, Su

Paramedic Science Program

6 Semesters

Program Coordinator: Mikitish

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 Science program 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

6 Semesters

Complete the following, in addition to the University’s General Education Objectives (a minimum of 36 credits):

Pre-professional Requirements:
BIOL 3301, 3301L and BIOL 3302, 3302L* 8 cr
Anatomy and Physiology, and Labs
HCA/HE 2210 Medical Terminology and Communication 2 cr

Paramedic (Professional) Requirements:

Second Year, Fall Semester
PARM 2211 Basic ECG Interpretation 2 cr
PARM 2212 Paramedic Pharmacology 3 cr
PARM 2213 Paramedic Fundamentals 2 cr
PARM 2213L Paramedic Fundamentals Lab 1 cr
PARM 2214 Paramedic Pathophysiology 3 cr
PARM 2215 Introduction to Paramedic Medicine 3 credits. 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.
PARM 2216 Paramedic Medicine I Lab 1 cr
PARM 2217 Paramedic Integration I Lab 1 cr
TOTAL: 16 cr

Second Year, Spring Semester
PARM 2221 Medical Emergencies 3 cr
PARM 2221L Medical Emergencies Lab 1 cr
PARM 2222 Trauma Care 3 cr
PARM 2223 Advanced Emergency Care 2 cr
PARM 2224 Special Populations 3 cr
PARM 2224L Special Populations Lab 1 cr
PARM 2225 Advanced ECG Interpretation 2 credits. 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.
PARM 2225L Advanced ECG Interpretation. Lab 1 cr
PARM 2226 Advanced Airway Management 2 credits. 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. PREREQ: PARM 2224. Graded S/U. PREREQ: Acceptance into Paramedic program or permission of instructor.
PARM 2229 Paramedic Clinical Practicum I 1 cr
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.
PARM 2231 Rescue Operations 2 credits.

Third Year, Fall Semester
PARM 2247 Paramedic Field Practicum 6 cr
TOTAL: 6 cr

TOTAL for Associate Degree: 90 cr

Paramedic Science Courses

PARM 2211 Basic ECG Interpretation 3 credits. 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.
PARM 2212 Paramedic Pharmacology 3 credits. 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.

PARM 2213 Paramedic Fundamentals 2 credits. Basic patient assessment concepts, review of basic airway Management, and introduction to advanced airway management/ventilation, intravenous skills, and medication administration via enteral and parenteral routes. COREQ: PARM 2212, PARM 2213L, and PARM 2217L.

PARM 2217L Paramedic Integration I Lab 1 cr
PARM 2218L Advanced Emergency Care 2 credits. 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.
PARM 2224 Special Populations 3 credits. 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. PREREQ: Acceptance into Paramedic program or permission of instructor.
PARM 2224L Special Populations Lab 1 cr
PARM 2225 Advanced Airway Management 2 credits. 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. PREREQ: PARM 2224. Graded S/U.
PARM 2226 Advanced Airway Management 2 credits. 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. PREREQ: PARM 2224. Graded S/U.
PARM 2229 Paramedic Clinical Practicum I 1 cr
PARM 2231 Rescue Operations 2 credits. 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.
PARM 2231L Rescue Operations Lab 1 cr
PARM 2232 Trauma Care 3 credits. 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.
PARM 2233 Advanced Emergency Care 2 credits. 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.
PARM 2237L Paramedic Integration II Lab 1 cr
PARM 2238L Advanced Emergency Care 2 credits. 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.
PARM 2239 Paramedic Clinical Practicum II 3 credits. Supports the didactic elements of the Paramedic course. Rotations at various clinical settings, including ED, OR, ICU/CCU, Crisis Intervention/Psychiatry and EMS rides along 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.
PARM 2242L Special Populations Lab 1 cr
PARM 2249 Paramedic Field Practicum II 6 credits. 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 2237, and PARM 2239, and acceptance into Paramedic program or permission of instructor. F

PARM 2296 Independent Study 1-8 credits. 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 credits. 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

Program Director and Associate Professor: Hobbs
Assistant Professor: Mickelsen
Clinical Affiliate Instructors: Beard, Bird, Bitton, Hopkins, Jacobsen, Keeling, Rhodes, Struhs, Swaner, Vanover, Waldram
Adjunct Faculty: Snyder, Swann, Wertz

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).

Overview
The Radiographic Science Program at Idaho State University 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 skills acquired 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 Healthcare Administration Faculty. This is atypical of most programs and is a unique feature that sets the program apart from other programs. Our philosophy is that students that learn from experts become experts. When graduation approaches students are ready to enter the profession confidently.

Mission
The Mission of the Radiographic Science 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 – to help meet the statewide and regional needs by providing access to quality education to prospective students.

• Community – to help 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)

Goal Areas
The faculty members in the Radiographic Science Program promote knowledge and discovery for all students by committing to the following goals:
• Students will use critical thinking and problem-solving skills.
• Students/graduates will be clinically competent.
• Students will be able to effectively communicate.
• Students will demonstrate the importance of professional growth and development.

Admission Procedures
Admission to the Radiographic Science Program is competitive. Students will be evaluated using grades in pre-professional courses. Students will be selected using GPA of grades in the pre-professional courses. A minimum grade point average of 2.75 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 submitted to the Radiographic Science Program by February 15th of the year the student is seeking admission. The first professional year begins in the fall semester.
Idaho State University Radiographic Science Program Policy for Transfer of Credit from Hospital-Based and Vocational-Technical Radiography Programs

The Idaho State University Radiographic Science Program will award up to 44 credits in radiography for programs completed at accredited hospital-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 (amount of time to remain proficient to be determined by 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 and/or accredited vocational technical programs.
   (d) official college transcripts.

Certification

Graduates of the associate or bachelor degree 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.

Bachelor of Science in Radiographic Science

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 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.

A student may be awarded a Bachelor of Science in Radiographic Science by fulfilling the following requirements:

1. A minimum of 125 semester credits hours to include 8 of the 9 General Education Objectives (minimum 36 credits—see the Academic Information section of this Catalog). The following Objective courses also satisfy specific program requirements:

   CHEM 1101 Introduction to General Chemistry 3 cr
   (satisfies General Education Objective 5)
   CIS 1101 Digital Resources for Information Literacy 3 cr
   (satisfies General Education Objective 8)
   MATH 1153 Introduction to Statistics 3 cr
   (satisfies General Education Objective 3)
   BIOL 1101,1101L Biology I, and Lab 4 cr
   PHYS 1100 Essentials of Physics 4 cr
   (together, the 3 courses above satisfy General Education Objective 5)

Completion of the following pre-radiographic science courses:

- BIOL 3301,3301L Anatomy and Physiology, and Lab 4 cr
- BIOL 3301,3301L Anatomy and Physiology, and Lab 4 cr
- BIOL 3302, 3302L Anatomy and Physiology, and Lab 4 cr
- HCA/HE 2210 Medical Terminology and Communication 2 cr
- MATH 1143 College Algebra 3 cr
- RS 1105 Introduction to Radiographic Science 1 cr
- ACCT 3303 Accounting Concepts 3 cr
- MGT 3312 Individual and Organizational Behavior 3 cr
- HCA 3384 Human Resource Management in Health Care Organizations (Fall only) 3 cr
- OR
- MGT 4473 Personnel Management 3 cr
- HCA 4475 Health Care Law and Bioethics 3 cr

2. Required Courses

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 I

Fall Semester

- RS 3310 Radiographic Methods I 2 cr
- RS 3320,3320L Radiographic Imaging Applications, and Lab 2 cr
- RS 3325 Patient Care in Radiography 3 cr
- RS 3330,3330L Radiographic Exposure, and Lab 3 cr
- RS 3340 Laboratory Practicum I 1 cr
- RS 3389 Applied Radiography I 4 cr

TOTAL: 15 cr

Spring Semester

- RS 3311 Radiographic Methods II 2 cr
- RS 3341 Laboratory Practicum II 1 cr
- RS 3375 Pediatric Radiography 1 cr
- RS 3388 Radiation Protection 1 cr
- RS 3390 Applied Radiography II 4 cr
- BIOL 4470 Sectional Anatomy 2 cr
- PHYS 3300 Medical Electronics 2 cr
- PHYS 3321 Radiologic Physics (with Lab) 2 cr

TOTAL: 15 cr

PROFESSIONAL YEAR II

Summer Semester

- RS 4488 Applied Radiography III 5 cr

Fall Semester

- RS 3312 Radiographic Methods III 2 cr
- RS 3342 Laboratory Practicum III 1 cr
- RS 4421 Computed Tomography 1 cr
- RS 4450 Alternate Imaging Modalities with Introduction to Evidence-based Research 1 cr
- RS 4460 Introduction to Radiographic Quality Assurance 2 cr
- RS 4489 Applied Radiography IV 6 cr

TOTAL: 15 cr

Spring Semester

- BIOL 3307 Radiobiology 2 cr
- RS 4430 Radiographic Pathology 2 cr
- RS 4441 Advanced Radiographic Methods I 1 cr
- RS 4470 Advanced Radiographic Exposure 2 cr
- RS 4475 Registry Review 2 cr
- RS 4490 Applied Radiography V 6 cr

TOTAL: 15 cr

Associate of Applied Science in Radiographic Science

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.
Radiographic Science Courses

RS 1105 Introduction to Radiographic Science 1 credit. History of the profession, responsibilities of the technologist, professional development, radiation protection, areas of specialization. F, S, W

RS 3310 Radiographic Methods I 2 credits. 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 credits. Introduces the student to basic theory and principles of radiographic procedures of the lower limb, femur, pelvic girdle, cervical/thoracic/radicular/lumbar spine, sacrum/coccyx, and upper gastrointestinal system. S

RS 3312 Radiographic Methods III 2 credits. Continuation of 311 emphasizing theory and principles of radiographic examinations of the lower gastrointestinal system, bony thorax, skull and cranial bones, facial bones, paranasal sinuses, and urinary system. F

RS 3320 Radiographic Imaging Applications 1 credit. Exploration of the methodology of various types of radiographic recording media applications including image acquisition, image processing, and image manipulation for computed radiography (CR), digital radiography (DR), and x-ray film screen. F

RS 3320L Radiographic Imaging Applications Laboratory 1 credit. 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 credits. 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 credits. 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 credits. COREQ: RS 3330. F

RS 3340 Laboratory Practicum I 1 credit. 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 credit. 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 credit. Study of the theory and clinical application of pediatric radiography. S

RS 3388 Radiation Protection 1 credit. 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 credits. Clinical applications of radiographic examinations with emphasis on the chest, abdomen, and upper limbs. F

RS 3390 Applied Radiography II 4 credits. Clinical applications of radiographic examinations with emphasis on the lower extremity, hips, and pelvis. S

RS 4421 Computed Tomography 1 credit. 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 credits. 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 credit. 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 credit. 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 credits. 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 credits. 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 credits. In-depth study of material that may be presented on the written registry review administered by the American Registry of Radiologic Technologists (ARRT). S

RS 4481 Independent Problems in Radiography 1-2 credits. Study of topics in radiography selected by students and faculty. May be repeated to a maximum of 4 credits. D

RS 4488 Applied Radiography III 5 credits. 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 credits. Clinical application of radiographic examinations performed in a trauma, mobile, and surgical setting. F

RS 4490 Applied Radiography V 6 credits. Clinical application of radiographic examinations including ribs, head radiography, urinary system, arthography, and myelography. S

RS 4491 Seminar-Selected Topics 1-6 credits. Group studies of topics not covered in regular offerings. May be repeated under different titles for a maximum of 6 credits. PREREQ: Permission of instructor. D

RS 4495 Internship in Special Diagnostic Imaging 2 credits. Eight week internship providing opportunity to participate in diagnostic and research examinations requiring special modality, e.g. peripheral or cardiac angiography, computerized tomography, ultrasound, magnetic resonance. PREREQ: Permission of instructor. D
School of Nursing

Associate Dean, Director, and Professor: Nies
Professor: Neill
Associate Professors: Arvidson, Schwartz
Clinical Associate Professors:
Hales Reynolds, Mladenka, Murphy
Clinical Assistant Professors: Belliston, Damstrom, Hewett, Jardine-Dickerson, Marquette, McCarthy, Molina-Shaver, Ovitt, Pesnell, Punkoney, Reiland, Sabel
Clinical Instructor: Quiroz
Emeritae: Ashton, Jacobson, McLaughlin, McRoberts, Renn, Sato

Baccalaureate Program

The undergraduate nursing program at Idaho State University is a four-year professional program which leads 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 for Colleges of Nursing, and approved by the Idaho 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). The undergraduate program serves as a foundation for professional 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 year at the University. Then students must apply and be accepted into the baccalaureate nursing program to complete their program of study. Please see the Nursing School website (www.isu.edu/nursing/) for all 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 Baccalaureate Nursing Program

The accelerated program is designed for those who have previously completed a baccalaureate degree in a field other than nursing. Students complete a Bachelor of Science degree in nursing and are eligible to take the RN licensure exam (NCLEX-RN) upon completion of the program.

The Accelerated Nursing Program is four consecutive semesters beginning in January of one year and ending in May of the following year. The program application deadline is September 15th. Notifications of the selection results are mailed in early November. The program accepts a maximum of 30 students for each January enrollment.

For all details regarding the Accelerated Program, see http://www.isu.edu/meridian/p_bs_nursing.shtml

C. Completion Programs

Associate Degree and Diploma Registered Nurses - Bachelor of Science. This is a program appropriate for Registered Nurses who wish to complete a baccalaureate degree in nursing. (www.isu.edu/nursing)

Licensed Practical Nurses – Bachelor of Science. This is a program appropriate for Licensed Practical Nurses who wish to complete a baccalaureate degree in nursing. (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.

Application

Students (traditional, accelerated, and LPN) 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 all courses taken at other colleges or universities;

d. Any petitions completed for the School of Nursing;

e. Test of Essential Academic Skills (TEAS)

i. TEAS entrance examination must be completed between July 1 and the September 15 deadline.

ii. TEAS can be taken at the Testing Center in Pocatello ((208) 282-4907), Idaho Falls ((208) 282-7750), or Meridian ((208) 373-1875).

iii. The test includes four parts: Reading, English Language Usage, Science, and Mathematics.

iv. The price of the test is $55.00. The student will pay the testing center by cash or check ONLY--no credit cards are accepted.

v. A study guide for the TEAS is available for purchase at the ATI website or a combination of the study guide and practice test is available at http://www.atitesting.com under the tab for ATI Product Solutions, and then Pre-Nursing.

f. Criminal Background History Evaluation

g. Health Certification Requirements

h. Current Cardio-pulmonary Resuscitation (CPR) Certification

i. Educational and Nursing-Related Employment document (for traditional and LPN programs).

j. Applicants to the Accelerated program may be contacted for a personal interview.

k. For the Accelerated program, documentation of a previous baccalaureate degree in a field other than nursing is required.
Selection Process
Applicant ranking and selection is based upon three factors:

A. For Traditional and LPN 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.

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.

Students who are not admitted to the spring semester for which they initially apply must reapply for the next year and will be reviewed for admission with the new group of applicants.

Reapplication
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. Reapplicants 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 Undergraduate Student Handbook (from www.isu.edu, use the “Search ISU” tab).

Special Considerations for Completion Programs
a) All students (RN and LPN) must first be admitted to the University. Criteria for admission may be obtained from the School of Nursing website (www.isu.edu/nursing/).

b) Registered Nurses may request that prerequisite and requisite courses be waived, and request that credit for nursing courses taken in another baccalaureate nursing program be accepted for comparable courses at Idaho State University. University credit and graduation requirements must be met.

Admission to the Traditional and Completion Baccalaureate Programs
Students apply for admission to the nursing program in the fall semester of the sophomore year. Those students admitted to the program will then begin the program in the spring semester of their sophomore year. All 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 September 15 to ensure consideration for spring enrollment. Applicants will be notified of the results of the review process by November 1. Please see the School of Nursing website (www.isu.edu/nursing/) for the all details about for the Traditional, Accelerated, and B.S. Completion program for LPNs and RNs.

Prerequisite Courses
Prospective nursing majors must have a minimum combined GPA of 3.0 in the Set A prerequisite courses listed below to be eligible to make application 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. 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 January, but not necessarily before the application is submitted.

a. Set A Application Prerequisites for Traditional Program and B.S. Completion Program for LPNs

One of the following:
- ANTH 2237 - Peoples and Cultures of the Old World 3 cr
- ANTH 2238 - Peoples and Cultures of the New World 3 cr
- ANTH 2239 - Latino Peoples and Cultures 3 cr
- ANTH 1100 - General Anthropology 3 cr
- SOC 1101 - Introduction to Sociology 3 cr

Plus all of the following:
- BIOL 1101, 1101L - Biology I, and Lab 4 cr
- BIOL 2221, 2221L - Introductory Microbiology, and Lab 4 cr

b. Set B Prerequisite Courses for Traditional Program and B.S. Completion Program for LPNs:

- BIOL 3305 - Introduction to Pathobiology 3 cr
- CHEM 1102 - Introduction to General Chemistry OR
- CHEM 1110, 1110L - General Chemistry I, and Lab 5 cr
- HCA/HE 2210 - Medical Terminology and Communication 2 cr
- PSYC 1101 - Introduction to General Psychology 3 cr
- PSYC 2225 - Child Development 3 cr

Admission to the Accelerated Baccalaureate Program

a. Set A Application Prerequisites for Accelerated Students

- BIOL 3301, 3302 - Anatomy and Physiology, and Lab 8 cr
- CHEM 1101 - Introduction to General Chemistry 3 cr
- CHEM 1102, 1103 - Introduction to Organic and Biochemistry, and Lab 4 cr
- BIOL 3305 - Introduction to Pathobiology OR
- BIOL 4463, 4463L - Human Pathophysiology, and Lab 4 cr

b. Set B Enrollment Prerequisites for Accelerated Students

- MATH 1153 - Introduction to Statistics 3 cr
- PSYC 1101 - Introduction to General Psychology 3 cr
- PSYC 2225 - Child Development 3 cr

Plus one of the following:
- ANTH 2227 - Peoples and Cultures of the Old World 3 cr
- ANTH 2238 - Peoples and Cultures of the New World 3 cr
- ANTH 2239 - Latino Peoples and Cultures 3 cr
- SOC 1101 - Introduction to Sociology 3 cr
- SOC 1102 - Social Problems 3 cr

c. Continuation Prerequisite Courses for Accelerated Students

Continuation prerequisite courses are offered as part of the curriculum during the first semester of the Accelerated Nursing Program or may be taken prior to admission. Students may advance to the second semester of the Accelerated Program only after completion of these courses.

- NTD 3340 - Nutrition for Health Professionals 3 cr
- PHL 2230 - Medical Ethics 3 cr
- PPRA 3315 - Pharmacology for Nursing 4 cr

Graduation
Each senior student must contact the graduation clerk in the semester preceding graduation. The student’s academic record
will be formally reviewed for completeness of specified course work and university requirements. The School of Nursing formally reviews the transcripts of senior students for completeness 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 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 normally reviews the transcripts of senior students. For funds may be available to qualified nursing students. For expenses, such as the cost of transportation for learning experiences, or credit hours a student takes in a semester. 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, so transportation and/or housing expenses will be incurred by the student.

Financial Assistance
In addition to the financial aid available to all university students, special awards and funds may be available to qualified nursing students. For information about financial assistance, contact the Financial Aid and Scholarship Office.

Graduate Program
The School of Nursing offers graduate programs leading to the degrees of Master of Science with a major in nursing and Ph.D. in Nursing. See the Graduate Catalog for information.

Bachelor of Science in Nursing

University General Requirements (Specific Objective Courses Required for Nursing)
Students pursuing the Bachelor of Science degree must complete 8 of the 9 General Education Objectives (minimum 36 credits—see Academic Information section of this Catalog). The following courses are program requirements that may also be chosen to satisfy General Education Objectives:

ANTH 2237 Peoples and Cultures of the Old World 3 cr
ANTH 2238 Peoples and Cultures of the New World 3 cr
BIOL 1101,1101L Biology I, and Lab 4 cr
CHEM 1101 Introduction to General Chemistry 3 cr
CHEM 1102,1103 Introduction to Organic and Biochemistry, and Lab 4 cr
ECON 2201 Principles of Macroeconomics 3 cr
LLIB 1115 Introduction to Information Literacy 3 cr
MATH 1153 Introduction to Statistics (MATH 1108 prerequisite) 3 cr
PSYC 1101 Introduction to General Psychology 3 cr

*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.

Other University Courses Required for Major in Nursing

BIOL 2221,2221L, Introduction to
Microbiology, and Lab 4 cr
BIOL 3301,3301L, Anatomy and Physiology, and Lab 4 cr
BIOL 3302,3302L, Anatomy and Physiology, and Lab 4 cr
BIOL 3305, Introduction to Pathobiology 3 cr
HCA 2210 Medical Terminology and Communication 2 cr
NDT 3340 Nutrition for Health Professionals 3 cr
PHIL 2230 Bioethics 3 cr
PPRA 3315 Pharmacology for Nursing 4 cr
PSYC 2225 Child Development 3 cr
Elective 2 cr

Required Nursing Courses for Traditional Students

NURS 2200 Health Assessment 3 cr
NURS 2220, Health Assessment Lab 1 cr
NURS 2220, Introduction to Professional Nursing 2 cr
NURS 2262,2263, Fundamentals of Nursing, and Lab 5 cr
NURS 3330 Evidence-Based Nursing Practice 3 cr
NURS 3331, Medical-Surgical Nursing I Practicum 3 cr
NURS 3332, Nursing Care of Children 3 cr
NURS 3334, Medical-Surgical Nursing I 3 cr
NURS 3371, Medical-Surgical Nursing II Practicum 4 cr
NURS 3372, Nursing Care of the Older Adult 2 cr
NURS 3374, Medical-Surgical Nursing II 4 cr
NURS 4412, Nursing Care of Childbearing Families and Women 3 cr
NURS 4413, Nursing Care of Childbearing Families and Women Practicum 2 cr
NURS 4414, Psych-Mental Health Nursing Concepts 3 cr
NURS 4415, Psych-Mental Health Practicum 2 cr
NURS 4416, Health Care Informatics for Nursing 1 cr
NURS 4418, 4418L, Leadership and Management, and Lab 5 cr
NURS 4426, 4426L, Community Health Nursing, and Lab 5 cr

Required Nursing Courses for LPNs and RNs Only

NURS 3375, Clinical Practicum 2 cr
NURS 4405, Socialization into Professional Nursing 1 cr
NURS 4416, Health Care Informatics for Nursing 1 cr
NURS 4424, Leadership in Communities for Registered Nurses 2 cr
NURS 4425, Leadership in Communities for Registered Nurses Practicum 3 cr

In addition to these unique courses for LPNs and RNs, Completion students are required to complete other university courses and required nursing courses. An individualized program of study will be developed for each Completion student.

Required Nursing Courses for Accelerated Students

NURS 2200, Health Assessment 3 cr
NURS 2200L, Health Assessment Lab 1 cr
NURS 2204, Concepts of Nursing Practice 4 cr
NURS 2204L, Concepts of Nursing Practice Lab 2 cr
PHIL 2230, Medical Ethics* 3 cr
NDT 3340, Nutrition for Health Professionals 3 cr
PPRA 3315, Pharmacology for Nursing* 4 cr
NURS 3330, Evidence Based Nursing Practice 3 cr
NURS 3351, Medical Surgical Nursing 3 cr
NURS 3352, Nursing I Practicum 4 cr
NURS 3354, Medical Surgical Nursing I 3 cr
NURS 3371, Medical Surgical Nursing II Practicum 4 cr
NURS 3374, Medical Surgical Nursing II 4 cr
NURS 4412, Childbearing Families and Women 3 cr
NURS 4413, Childbearing Families and Women Practicum 2 cr
NURS 4414, Psych Mental Health Nursing 3 cr
NURS 4415, Psych Mental Health Practicum 2 cr
NURS 4418, Leadership and Management 3 cr
NURS 4418L, Leadership and Management Lab 2 cr
NURS 4426, Community Health Nursing 3 cr
NURS 4426L, Community Health Nursing Lab 2 cr

* Indicates continuation prerequisite courses - may have been completed prior to beginning program.
Progression requirements:
- Students apply to the nursing program in the fall semester of the sophomore year.
- Students must be accepted into the nursing program to complete the 5 semesters of nursing courses for the Traditional program, and 4 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.

Nursing Courses
NURS 2200 Health Assessment 3 credits. Assessment of biological and psychosocial health status and health promotion needs of clients through collecting and interpreting health history and physical assessment data. PREREQ: Acceptance into BS with a major in Nursing program. COREQ: NURS 2200L. S

NURS 2200L Health Assessment Lab 1 credit. Application and practice of nursing assessment skills. PREREQ: Acceptance into Accelerated Nursing or Traditional Nursing program. COREQ: NURS 2200. S

NURS 2204 Concepts of Nursing Practice 4 credits. 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. PREREQ: Acceptance into Accelerated Nursing program. COREQ: NURS 2204L. S

NURS 2204L Concepts of Nursing Practice Lab 2 credits (6 contact 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 2220 Introduction to Professional Nursing 2 credits. Social forces affecting professional nursing are analyzed in the context of their impact on health care. Concepts of health promotion and adaptation of clients of all ages are presented. S

NURS 2226 Fundamentals of Nursing 3 credits. Provides the theoretical basis for fundamental nursing skills, nursing process and health promotion as they relate to health care needs of clients. PREREQ: Acceptance into Nursing program. COREQ: NURS 2200 and NURS 2226.3

NURS 2263 Fundamentals of Nursing Lab 2 credits (6 contact hours). Application and practice of fundamental nursing skills. PREREQ: Acceptance into Nursing program. COREQ: NURS 2200 and NURS 2262. S

NURS 3330 Evidence-Based Nursing Practice 3 credits. 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 3351 Medical-Surgical Nursing Practice 1-4 credits (12 contact hours). Introduction to the nursing care of clients in acute and ambulatory/community settings utilizing the nursing process. PREREQ: NURS 2200 and acceptance into BS with a major in Nursing program. COREQ: NURS 3354. F

NURS 3352 Nursing Care of Children 3 credits. Application of the nursing knowledge and health promotion in the well child as well as acutely, chronically and terminally ill children and their families to achieve maximum potential for daily living. PREREQ: NURS 2200 and acceptance into BS with a major in Nursing program. S

NURS 3354 Medical-Surgical Nursing I 3 credits. Introduction to the theory and process focusing on care of clients with alteration in health status, wellness, and/or restoration of health, including applied drug therapy. PREREQ: NURS 2200 and acceptance into BS with a major in Nursing program. F

NURS 3371 Medical-Surgical Nursing II Practice 4 credits (12 contact hours). Application of the nursing process to the care of clients in acute and ambulatory/community care settings. PREREQ: NURS 3351 and acceptance into BS with a major in Nursing program. S

NURS 3372 Nursing Care of the Older Adult 2 credits. Use of geriatric nursing principles to help older adults. PREREQ: NURS 2200 and acceptance into BS with a major in Nursing program. F

NURS 3374 Medical-Surgical Nursing II 4 credits. Theory and process focusing on the application of care to clients with alterations in health status, wellness, and/or restoration of health, including applied drug therapy. PREREQ: NURS 3354 and acceptance into BS with a major in Nursing program. S

NURS 3375 Clinical Practice 2 credits (6 contact hours). Clinical section in selected medical surgical areas for Licensed Practical Nurses. Application of the nursing process to the care of complex medical surgical patients. PREREQ: NURS 2200, approval of instructor, and acceptance into BS with a major in Nursing program. COREQ: NURS 3374. D

NURS 3381 Care of the Acutely Ill Child and Family 1-2 credits. 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: Acceptance into Nursing program. COREQ: NURS 3374 and acceptance into BS with a major in Nursing program. F, S, Su

NURS 4404 Professional Role Expansion 5 credits. A study of nursing theories and philosophy as well as an integration of community, leadership, management, and informatics principles to prepare the Associate Degree to Master of Science nurse to function in the changing health care environment. PREREQ: Admission to the AD-MS Program. S

NURS 4405 Socialization into Professional Nursing 1 credit. Transitional course for the Licensed Practical and Associate Degree to Baccalaureate nursing student that introduces philosophy and conceptual foundations of nursing. Application of nursing core competencies to professional practice. PREREQ: Permission of instructor and acceptance into BS with a major in Nursing program. F

NURS 4412 Childbearing Families and Women 3 credits. Explores health issues of and nursing care principles for childbearing families and women in the reproductive years. PREREQ: NURS 3352 and acceptance into BS with a major in Nursing program. COREQ: NURS 4413. F, S, Su

NURS 4413 Childbearing Families and Women Practice 2 credits (6 contact hours). Application and practice of nursing care for childbearing families and women in the reproductive years in various health care settings. PREREQ: NURS 3351 and acceptance into BS with a major in Nursing program. COREQ: NURS 4412. F, S, Su

NURS 4414 Psych Mental Health Nursing 3 credits. Holistic theoretical perspective of psychiatric mental health nursing of clients of all ages. PREREQ: NURS 3374 and acceptance into BS with a major in Nursing program. F, S, Su

NURS 4415 Psych Mental Health Nursing Practice 2 credits (6 contact hours lab). Clinical application of psychiatric mental health concepts to clients with potential or actual mental illness. PREREQ: NURS 3371 and acceptance into BS with a major in Nursing program. F, S, Su

NURS 4416 Health Care Informatics—Nursing 1 credit. Introduction to the management of health care information through technology with an emphasis on nursing applications. Current issues and trends will be examined along with skills for accessing, managing, and critically examining information. PREREQ: Permission of instructor and acceptance into BS with a major in Nursing program. F, S, Su


NURS 4418 Leadership and Management 3 credits. 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 credits. 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 4424 Leadership in the Community for Registered Nurses 2 credits. Provides leadership and community theory to registered nurses who will be prepared to function in leadership roles in the changing health care environment. PREREQ: RN licensure and acceptance into BS with a major in Nursing program. F

NURS 4425 Leadership in the Community for Registered Nurses Practicum 3 credits (9 contact hours). Integrates Leadership/management and Community Nursing principles to prepare the registered nurse to function in the changing health care environment. PREREQ: RN licensure and acceptance into BS with a major in Nursing program. F

NURS 4426 Community Health Nursing 3 credits. Fundamentals of community health nursing. Use of the nursing process to assess, plan, implement and evaluate strategies to improve the health of the individuals, families and community. PREREQ: NURS 3371 and acceptance into BS with a major in Nursing program. COREQ: NURS 4426L. F, S, Su

NURS 4426L. Community Health Nursing Lab 2 credits. Application of fundamentals of community health nursing. Use of the nursing process to assess, plan, implement and evaluate strategies to improve the health of the individuals, families and community. PREREQ: NURS 3371 and acceptance into BS with a major in Nursing program. COREQ: NURS 4426. F, S, Su

NURS 4428 Holistic Health Care 2 credits. 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, Idaho State University Continuing Education/Special Programs. S

NURS 4430 Nursing Care of the Critically Ill Adult and Family 3 credits. 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: Nursing major, senior standing, and permission of instructor. D

NURS 4431 Nursing Care of Critically Ill Adult and Family Practicum 2 credits. 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: Nursing major, senior standing, and permission of instructor. D

NURS 4480 Genetics for Health Care 3 credits. 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 CSED 4480. Su

NURS 4491 Independent Study in Nursing 1-3 credits. Independent study in a specific area of nursing of special interest. PREREQ: Permission of the School of Nursing. F, S

Office of Medical and Oral Health
Coordinator and Associate Professor: Phelps

Department of Dental Hygiene
Interim Chair and Associate Professor: Calley
Professor: Hodges
Associate Professors: Freudenthal, Gurenlian, Rogo
Assistant Professors: Agado, Garland, Johnson, Portillo
Clinical Associate Professors: Ellis, Long-Woodhouse
Clinical Assistant Professors: Biorn, Zollinger
Adjunct Faculty: Bono, Boyer, E. Bringham, L. Bringham, Eisenhauer, D. Godfrey, M. Godfrey, Gregson, Hauser, Hooker, Peterson, Reddish, Ruth, Sheppard, Spain, Stephenson, Stevens, Williams
Affiliate Faculty: Luedtke, Parrish, Salisbury
Emeriti: Bowen, Christie, Herzog, Kawamura, Paarmann

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, 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 lifelong 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.

Bachelor of Science in Dental Hygiene

Prerequisite Core Courses (Pre-Dental Hygiene)

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIOL 1101</td>
<td>Biology I and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 2221</td>
<td>Introductory Microbiology and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>CHEM 101</td>
<td>Principles of Speech</td>
<td>3 cr</td>
</tr>
<tr>
<td>CHEM 102</td>
<td>Principles of Dental Hygiene</td>
<td>3 cr</td>
</tr>
<tr>
<td>CHEM 1101</td>
<td>Introduction to Biochemistry and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>ENGL 1101</td>
<td>English Composition</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 1102</td>
<td>Critical Reading and Writing</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 153</td>
<td>Introduction to Statistics</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 201</td>
<td>Introduction to General Psychology</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 203</td>
<td>Introduction to Sociology</td>
<td>3 cr</td>
</tr>
<tr>
<td>PSYC 1101</td>
<td>Introduction to Psychology</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Any University General Education Objectives not yet completed, plus any additional Objective courses required to bring the General Education credit total to a minimum of 36.

DENT 2200 is highly recommended as an elective for pre-dental hygiene students without dental office experience.

Elective course CIS 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.

<table>
<thead>
<tr>
<th>Course</th>
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<td>BIOL 2221</td>
<td>Introductory Microbiology and Lab</td>
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<tr>
<td>CHEM 1101</td>
<td>Introduction to Biochemistry and Lab</td>
<td>4 cr</td>
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<tr>
<td>CHEM 102</td>
<td>Principles of Dental Hygiene</td>
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<tr>
<td>MATH 201</td>
<td>Introduction to General Psychology</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 203</td>
<td>Introduction to Sociology</td>
<td>3 cr</td>
</tr>
<tr>
<td>PSYC 1101</td>
<td>Introduction to Psychology</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

In addition:

- Any University General Education Objectives not yet completed, plus any additional Objective courses required to bring the General Education credit total to a minimum of 36.
- DENT 2200 is highly recommended as an elective for pre-dental hygiene students without dental office experience.
Required Dental Hygiene Courses

DENT 3307 Prevention and Management of Medical Emergencies 2 cr
DENT 3308 Oral Histology and Embryology 2 cr
DENT 3309 General and Oral Pathology 2 cr
DENT 3311 Tooth Morphology 2 cr
DENT 3312 Head and Neck Anatomy 3 cr
DENT 3313 Clinical Dental Hygiene I 3 cr
DENT 3313C Clinical Dental Hygiene I, Clinic 3 cr
DENT 3314 Clinical Dental Hygiene II 2 cr
DENT 3314C Clinical Dental Hygiene II, Clinic 2 cr
DENT 3315 Preventive Dentistry 2 cr
DENT 3318 Oral Radiology 2 cr
DENT 3318L Oral Radiology Lab 1 cr
DENT 3319 Dental Materials and Adjunct Procedures 4 cr
DENT 3320 Pain Management 2 cr
DENT 3321 Periodontology 2 cr
DENT 4401 Research Methods 2 cr
DENT 4402 Advanced Periodontology 2 cr
DENT 4403 Advanced Clinical Theory I 2 cr
DENT 4403C Advanced Clinical Theory I, Clinic 2 cr
DENT 4404 Advanced Clinical Practice I, Clinic 4 cr
DENT 4404C Advanced Clinical Practice I, Clinic 4 cr
DENT 4408 Ethical and Legal Principles 2 cr
DENT 4411 Application of Restorative Therapies 2 cr
DENT 4411C Restorative Care I 1 cr
DENT 4412C Restorative Care II 1 cr
DENT 4413 Community Health 3 cr
DENT 4414 Community Outreach Experiences 2 cr
DENT 4421 Leadership and Health Policy 2 cr

Additional Required Course

PPRA 3314 Basic and Applied Pharmacology for Dental Hygiene 2 cr

Emphasis Areas:

Choose one emphasis area for 6 credits:

Education Area:
DENT 4422 Educational Strategies 3 cr
DENT 4423 Applied Educational Strategies 3 cr

Management Area:
DENT 4424 Principles of Practice Management 3 cr
DENT 4425 Applied Practice Management 3 cr

Dental Hygiene Electives

DENT 3330C Interim Clinic 2 cr
DENT 3340C Enhanced Strategies in Clinical Care 1 cr
DENT 4481 Independent Problems in Dental Hygiene 1-3 cr

Graduation Requirements

Prerequisite courses 46 cr
(department requirements and general education)
Required dental hygiene courses 73 cr
Other courses (including general education), minimum of: 12 cr

TOTAL: 131 cr

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 an 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 an 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 granted by an U.S. academic institution not accredited by a regional accrediting agency cannot be applied to a B.S. degree at Idaho State University.

Dental Hygiene Courses

DENT 2201 Principles of Dental Hygiene 2 credits. 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 credits. 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 credits. 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 preconceptions and treatment alterations for patients with medical complications and protocols for managing a medical emergency. PREREQ: Acceptance into Dental Hygiene program. COREQ: DENT 3313C. F

DENT 3308 Oral Histology and Embryology 2 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. Preclinical application of the dental hygiene process of care, infection control protocols, beginning assessment, instrumentation principles, and prevention therapies. PREREQ: Acceptance into Dental Hygiene program. COREQ: DENT 3313 and DENT 3307. F

DENT 3314 Clinical Dental Hygiene II 2 credits. 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 3315 Preventive Dentistry 2 credits. 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 3319 Dental Materials and Adjunct Procedures 4 credits. 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 credits. 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 Periodontontology 2 credits. 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 credits. 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. PREREQ: Permission of department. F, S, Su

DENT 3340C Enhanced Strategies in Clinical Care I 1 credit. 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 4401 Research Methods 3 credits. 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 credits. 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 Dental Hygiene III 2 credits. Advanced clinical theory and procedures in 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 credits. Continued application of the dental hygiene process of care through critical application and decision-making. Emphasis on continued skill development in nonsurgical periodontal therapy, self-care education, ethical and professional judgment, self-assessment and peer evaluation. PREREQ: DENT 3314 and DENT 3314C. COREQ: DENT 4403. F

DENT 4404 Advanced Clinical Theory II 3 credits. 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 4408 Ethical and Legal Principles 2 credits. 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 credits. 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 3330. COREQ: DENT 4411C. F

DENT 4411C Restorative Care I 1 credit. 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 3330. COREQ: DENT 4411. F

DENT 4412 Dental Specialties 1 credit. 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 credit. 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 credits. Introduction to Dental Public Health: core functions of public health agencies, health care disparities, current trends, data collection 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 3315, DENT 3314, and DENT 3314C. COREQ: DENT 4401 and DENT 4403C. F

DENT 4414 Community Outreach Experiences 2 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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

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.

There are eight positions available for Idaho residents. Applicants to the program must have completed the necessary prerequisites in English, Biology, Inorganic Chemistry, Organic Chemistry, Physics and other requirements as outlined on the Department of Dental Sciences’ web site (http://www.isu.edu/departments/dentsci/). In addition to fulfilling the minimal prerequisites most students accepted into the program will have a bachelor’s degree at the time of entry into IDEP. Occasionally, some exceptional students who have completed the junior level (upper division) of college course work are admitted into the program.

Students are encouraged to work closely with their pre-dental academic advisor in making course selections which fulfill dental school and degree completion requirements.

Formal application for admission to the IDEP program follows the guidelines outlined in the Department of Dental Sciences’ web site and theCreighton University School of Dentistry Bulletin. The application process involves: taking the Dental Aptitude Test (DAT), completion of the American Dental Education Association Application Service centralized application, the Creighton Supplemental Application and the IDEP Residency Certification Form. Early application is strongly encouraged to allow adequate time for completion of admission requirements and consideration by the admissions committee. Students may apply the summer prior to anticipated entry into the program. The selection process is normally completed in December prior to the year of program entry.

Further information concerning the program, admission requirements, and Residency Certification forms can be obtained by contacting the program at the following address:

Department of Dental Sciences
921 S 8th Ave Stop 8088
Pocatello ID 83209-8088
Phone: (208) 282-3289
www.isu.edu/departments/dentsci

Required Basic Sciences Courses

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<td>Oral Histology and Embryology</td>
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<td>BIOL 4400L</td>
<td>Oral Histology and Embryology Lab</td>
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<td>BIOL 4419</td>
<td>Mammalian Histology</td>
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<td>Mammalian Histology Lab</td>
<td>0 cr</td>
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<td>BIOL 4432</td>
<td>Biochemistry</td>
<td>3 cr</td>
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<tr>
<td>BIOL 4440</td>
<td>Human Gross Anatomy</td>
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<td>Head and Neck Anatomy</td>
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<td>BIOL 4460</td>
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Required Dental Sciences Courses

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<td>IDEP 4414</td>
<td>Dental Anatomy Laboratory 3</td>
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<td>IDEP 4415</td>
<td>Dental Materials Science 1</td>
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<td>Interpersonal Relationships</td>
<td>1 cr</td>
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<td>IDEP 4423</td>
<td>Preventive Dentistry</td>
<td>2 cr</td>
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<td>IDEP 4425</td>
<td>History of Dentistry</td>
<td>1 cr</td>
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<td>IDEP 4426</td>
<td>Community Dentistry</td>
<td>1 cr</td>
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<tr>
<td>IDEP 4433</td>
<td>Oral Hygiene Technique</td>
<td>1 cr</td>
</tr>
</tbody>
</table>
of the teeth. Periodontal charting and instru-

ments in performing a complete scaling prophylaxis

Introduction to the instruments and their usage

during dental health and/or career presenta-

services and agencies. Field experience is gained

with area health problems and with area health

relationships with classmates, administrators,

relationships and communication in general,

ment sharpening techniques are also performed.

Dental Materials Science II 3 credits. Continuation of IDEP4415. PREREQ: IDEP 4415. S

IDEP 4435 Occlusion Laboratory 1 credit. Various exercises simulating clinical diagnos-

tic and treatment procedures are employed to exemplify principles of maxillomandibular

relationships. S

IDEP 4444 Values and Ethics 1 credit. De-

igned 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 credit. Basic

principles of maxillomandibular relationships,

static and functional, as related to the occlusal

surfaces of the teeth. S

IDEP 4463 Dental Radiology I 1 credit. History,

theory, and application of ionizing radiation result-

ing in radiography of the oral structures; including

exposure and developing parameters along with

basic interpretation. COREQ: IDEP 4464. S

IDEP 4464 Dental Radiology Technique 1 credit.

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 credit. History,

theory, and application of radiographic methods in dentistry including cephalometric,

panoramic, and digital modalities. COREQ: IDEP 4463 and IDEP 4464. S

IDEP 6617 Extramural Dental Education Program 2 credits. Community clinical experi-

ence at the Idaho State University dental

clinic. Under direct supervision, dental students

observe and participate in total patient care and

office management while serving Idaho residents

who would not normally receive dental care. D

Clinical Assistant Professors: Abraszewski,

Borzadek, Nielsen, Mills, Price

Visiting Research Professor: Holmes

Clinical Instructor: Krawtz

Affiliate Faculty: Buitrago, DeSano,

Joseph, Ragan

Administrative Director: Harding

Family Medicine

Residency Program

The Idaho State University Family Medi-

Residency is a postgraduate training program for physicians who have an M.D. or D.O. degree. The program is affiliated with the medical schools of the University of Washington and the University of Utah and is accredited by the Accreditation Council for Graduate Medical Education. The Pocatello Family Medicine Clinic, located on the Idaho State University campus, is the outpatient training site; hospital rotations are scheduled at Portneuf Medical Center.

Accepting seven residents per year, the program trains Family Physicians to practice in rural Idaho. The curriculum includes family medicine, obstetrics/gynecology, surgery, internal medicine, pediatrics, geriatrics, emergency medicine, community medicine, behavioral science, rural medicine, orthopedics and other subspecialties.

For more information, please contact: Family Medicine Residency Program

465 Memorial Drive

921 S 8th Ave Stop 8357

Pocatello, ID 83209-8357

(208) 282-4508

Internet: www.fmed.isu.edu

E-mail: fammed@fmed.isu.edu

Department of Family Medicine

Department Chair, Residency Director,

and Clinical Professor: Cree

Associate Director and Clinical Professor:

Woodhouse

Associate Dean for Clinical Research:

Force

Clinical Professor: Hachey

Associate Professor: Dickey

Clinical Associate Professors: Bokelman,

Mickelsen, Wright
Department of Physician Assistant Studies

Program Director and Associate Professor: Phelps
Medical Director, Meridian: McClusky
Medical Director, Pocatello: D’Souza
Clinical Professor: Hachey
Assistant Professors: Forbes, Johnson, Salazar
Clinical Assistant Professors: Bunnage, Martin, Mirly, Papa, Talford, Whitaker
Clinical Instructor: Smith

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, or the program website, 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).

Undergraduate Course
PAS 4489 Independent Problems in Physician Assistant Studies 1-3 credits.
Explore the field of Physician Assistant through experiential learning predominantly by participating in research with PAS program faculty. May be repeated for up to 3 credits. PREREQ: Approval of PAS Director. F, S, Su

School of Rehabilitation and Communication Sciences

Director and Associate Professor: Nancy Devine, PT, DPT, M.S.

Departments
The School of Rehabilitation and Communication Sciences (SRCS) is composed of 2 departments with 5 programs. The department of Communication Sciences and Disorders, and Education of the Deaf (CSED) consists of programs in Audiology, Sign Language Interpreting, and Speech-Language Pathology. The department of Physical and Occupational Therapy (DPT) 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), one baccalaureate degree track (pre-professional Occupational Therapy track through the Bachelor of University Studies degree program), and one Associate’s degree (AS in Sign Language Studies).

Department of Communication Sciences and Disorders
Chair and Professor: Kangas
Associate Chair and Professor: Johnson
Professors: Flipsen, Seikel
Associate Professor: Brockett
Assistant Professors: Altieri, Bargen, Hudock, Ogiela, Ramsdell, Sanford

Clinical Professors: Guryan, Loftin, Whitaker
Clinical Associate Professors: Bishop, Holst, Knudson, Turner, Wallber
Clinical Assistant Professors: Ament, Hansen, Hardy, Melton, Miller, Morgan, O’Donnell, Smith, Stone
Clinical Instructor: Tucker
Emeriti: Bain, Schow, Smedley, Sorensen, Weston

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 continue their education beyond the associate degree level in 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 elementary, secondary, and post-secondary educational programs. 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.

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 emphasizes 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, Division of Health Sciences, Department of Communication Sciences and Disorders.

Admission to Junior Level Classes

Prospective students are expected to have a cumulative GPA of 3.0 or better after completing 40 semester hours before registering for CSED 3321 and/or CSED 3330. Interested students with GPAs above 2.75 may petition the department chair to enroll in junior level courses through a letter and supporting documentation.

Junior Transfer Programs

It is strongly recommended that students interested in the Meridian undergraduate program complete their general education requirements at Boise State University, ACI, or other accredited university before transferring to Idaho State University-Meridian. It is recommended that prospective transfer students complete CSED 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) 373-1706 for additional information. Students wishing to transfer from the Pocatello campus to the Meridian campus should call that same number.

Preprofessional 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 Graduate degree programs. These courses are delivered in two formats. The traditional Preprofessional Program format involves 13 courses provided through on-campus classroom instruction over the course of two semesters and a summer. The Online Preprofessional 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 Sciences and Disorders home page at http://www.isu.edu/spchpath/. Completion of the preprofessional 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.

**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 all of the University’s General Education Requirements. Students must choose either the Pre-Audiology Emphasis or the Pre-Speech-Language Pathology Emphasis.

**Required Departmental Courses**

- **CSED 1126** Deaf Studies 1 cr
- **CSED 2205** Introduction to Communication Differences and Disorders 3 cr
- **CSED 2227** Basic Sign 1 cr
- **CSED 2228** Basic Sign 2 cr
- **CSED 3315** Clinical Processes: Pediatric 3 cr
- **CSED 3321, 3321L** Clinical Phonology and Phonetics, and Lab 4 cr
- **CSED 3325** Speech Sound Development and Disorders 3 cr
- **CSED 3330** Language Science and Development 3 cr
- **CSED 3341** Audiology and Hearing Science 3 cr
- **CSED 4405** Neurological Bases of Communication Disorders 3 cr
- **CSED 4417** Interdisciplinary Evaluation Team 1 cr
- **CSED 4435, 4435L** Speech and Hearing Sciences, and Lab 4 cr
- **CSED 4445** Aural Rehabilitation 3 cr
- **CSED 4460** Educational Audiology 3 cr

*Students may substitute CSED 1151, 1152, 2251, and 2252 (12 credits) for CSED 2227 and 2228.

**Other Required Courses**

- **BIOL 1101, 1101L** Biology I, and Lab 4 cr
- **BIOL 3301, 3301L** Anatomy and Physiology, and Lab 4 cr
- **BIOL 3302, 3302L** Anatomy and Physiology, and Lab 4 cr
- **ENGL 3307** Professional and Technical Writing 3 cr
- **HCA 1110** Introduction to the Allied Health Professions 3 cr
- **MATH 1153** Introduction to Statistics 3 cr
- **PSYC 1101** Introduction to General Psychology 3 cr
- **PSYC 2225** Child Development 3 cr
- **PSYC 3332** Psychology of Adolescence 3 cr
- **SOC 2248** Social Diversity 3 cr

**Recommended Course**

- **ANTH/ENGL 1107** Nature of Language 3 cr

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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 one of the three Options listed below.

**Required Courses**

- **CSED 2256** Deaf Culture and Community 3 cr
- **CSED 3340** Communication Disorders 3 cr
- **CSED 4415** Clinical Practicum in Audiology 1-4 cr
- **CSED 4416** Audiology Methods and Applications 1 cr
- **Plus electives** 8 cr

**American Sign Language (ASL) Option:**

Students choosing the ASL option must complete the following course work. The student choosing the ASL option will substitute ASL I and ASL II for CSED 2227 and 2228.

- **CSED 1151, 1151L** American Sign Language 1, and Laboratory 4 cr
- **CSED 1152, 1152L** American Sign Language II, and Laboratory 4 cr
- **CSED 2251, 2251L** American Sign Language III, and Laboratory 4 cr
- **CSED 2252, 2252L** American Sign Language IV, and Laboratory 4 cr

**Spanish Language Option:**

Students choosing the Spanish option must complete the following courses:

- **SPAN 1101** Elementary Spanish 1 4 cr
- **SPAN 1102** Elementary Spanish II 4 cr
- **SPAN 2201** Intermediate Spanish I 4 cr
- **SPAN 2202** Intermediate Spanish II 4 cr

**Elective Course Option:**

Students choosing the Elective option must complete 8 elective credits from the list below, and may petition to take courses not on this list.

- **BIOL 3358** Genetics 3 cr
- **BIOL 4415, 4415L** Human Neurobiology, and Lab 4 cr
- **BIOL 4460** Neuroscience 4 cr
- **COUN 3300** Interpersonal Skills in Health Professions 2 cr
- **CSED 3321L** Clinical Phonetics and Phonology Lab 1 cr
- **CSED 3325** Speech Sound Development and Disorders 3 cr
- **CSED 3335** Language Disorders 3 cr
- **CSED 4420** Clinical Processes: Adult 3 cr
- **CSED 4425** Speech Language Pathology Methods and Applications 3 cr
- **PHYS 1100** Essentials of Physics 4 cr
- **PHYS 1111** General Physics I 3 cr
- **PHYS 1112** General Physics II 3 cr
- **PHYS 3300** Medical Electronics 2 cr
- **PSYC 3344** Adult Development and Aging 3 cr
- **PSYC 4446** Cognitive Processes 3 cr
- **SPED 3330** The Exceptional Child 3 cr

**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:**

- **CSED 3321L** Clinical Phonetics and Phonology Lab 1 cr
- **CSED 3325** Speech Sound Development and Disorders 3 cr
- **CSED 3335** Language Disorders 3 cr
- **CSED 4420** Clinical Processes: Adult 3 cr
- **CSED 4425** Speech Language Pathology Methods and Applications 3 cr

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**Associate of Science in Sign Language Studies**

The following courses are required in addition to the University’s General Education Requirements:

- **CSED 1126** Deaf Studies 1 cr
- **CSED 1151** American Sign Language I 3 cr
- **CSED 1151L** American Sign Language I Laboratory 1 cr
- **CSED 1152** American Sign Language II 3 cr
- **CSED 1152L** American Sign Language II Laboratory 1 cr
- **CSED 2205** Introduction to Communication Differences and Disorders 4 cr
- **CSED 2250** Signing Seminar 3 cr
- **CSED 2250L** Signing Seminar Laboratory 1 cr
- **CSED 2251** American Sign Language III 3 cr
- **CSED 2251L** American Sign Language III Laboratory 1 cr
- **CSED 2252** American Sign Language IV 4 cr
- **CSED 2255** Creative Signing 3 cr
- **CSED 2256** Deaf Culture and Community 3 cr

**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**

- **ENGL 3307** Professional and Technical Writing 3 cr
- **ENGL 3308** Business Communication 3 cr
- **CSED 3330** Language Science and Development 3 cr
- **CSED 3351** American Sign Language V 4 cr
- **CSED 3352** American Sign Language VI 4 cr
- **CSED 3353** Interpreting Seminar 4 cr
- **CSED 3354** Interpreting 4 cr
- **CSED 4449** Fingerspelling and Numbers 3 cr
- **CSED 4452** Manually Coded English 3 cr
- **CSED 4453, 4453L** Transliterating I: Voice to Sign, and Lab 4 cr
Minor in Sign Language Studies

Procedure: Interested students should contact the department to declare a minor and be assigned a minor advisor.

Required Courses

- CSED 1126 Deaf Studies 1 cr
- CSED 1151 American Sign Language I 3 cr
- CSED 2205 Introduction to Communication Disorders 3 cr
- CSED 2250 Signing Seminar 3 cr
- CSED 2250L Signing Seminar Laboratory 1 cr
- CSED 2252 American Sign Language IV 4 cr

Electives

- CSED 2251 American Sign Language III 3 cr
- CSED 2251L American Sign Language III Laboratory 1 cr
- CSED 2252 American Sign Language IV 3 cr
- CSED 2252L American Sign Language IV Laboratory 1 cr
- CSED 2256 Deaf Culture and Community 3 cr
- CSED 4420 Clinical Processes: Adult 3 cr
- CSED 4420L Clinical Processes: Adult Laboratory 3 cr
- CSED 4435 Speech and Hearing Sciences 3 cr
- CSED 4440 Educational Audiology 3 cr
- CSED 4456 Educational Interpreting Internship 4.8 cr
- CSED 4460 Educational Audiology 3 cr
- CSED 4470 Field Observation in Interpreting 6 cr
- CSED 4471 Collaboration 2 cr
- CSED 4472 Creative Signing 3 cr
- CSED 4473 Collaborative Internship 4-8 cr

* in addition to the 30 credits listed in the Associate of Science in Sign Language Studies

Communications Sciences and Disorders Courses

Coursework in American Sign Language is restricted to majors in the Sign Language Studies or Educational Interpreting programs, or by permission of instructor.

CSED 1126 Deaf Studies 1 credit. Introduction to deafness; the culture and community of deaf individuals; language and communication issues; education and employment considerations in deafness. F

CSED 1151 American Sign Language I 3 credits. 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. Partially satisfies Objective 4 of the General Education Requirements. COREQ: CSED 1151L. F

CSED 1151L American Sign Language I Laboratory 1 credit. Assignments to apply principles from CSED 1151. COREQ: CSED 1151. F

CSED 1152 American Sign Language II 3 credits. Emphasis on receptive and expressive skills to achieve fluency on a grammatically appropriate level. Students are introduced to video-taping as a learning tool. May be repeated once to improve a grade for a maximum of 3 credits. Partially satisfies Objective 4 of the General Education Requirements. COREQ: CSED 1151L and CSED 1151L. COREQ: CSED 1152L. S

CSED 1152L American Sign Language II Laboratory 1 credit. Assignments to apply principles from CSED 1152. COREQ: CSED 1151 and CSED 1151L. COREQ: CSED 1152L. S

CSED 2205 Introduction to Communication Differences and Disorders 3 credits. Study 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

CSED 2227 Basic Sign I 2 credits. Beginning study of sign vocabulary, phrases and fingerspelling focused on expressive and receptive modes. Based on signing using English syntax. Designed for non-Sign Language Studies majors/minors: does not substitute for American Sign Language (ASL) classes. F

CSED 2228 Basic Sign II 2 credits. Application of basic sign vocabulary, phrases and fingerspelling skills focused on expressive and receptive modes. Based on signing using English syntax. Designed for non-Sign Language Studies majors/minors: does not substitute for American Sign Language (ASL) classes. PREREQ: CSED 2227 or permission of instructor. S

CSED 2250 Signing Seminar 3 credits. 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: CSED 1151 and permission of instructor. S

CSED 2250L Signing Seminar Laboratory 1 credit. Provides experiences in support of CSED 2250 concepts and skills. PREREQ: CSED 1151 and permission of instructor. COREQ: CSED 2250. S

CSED 2251 American Sign Language III 4 credits. 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. PREREQ: CSED 1152, CSED 1152L, and Sign Language Studies major or permission of instructor. COREQ: CSED 2251L. F

CSED 2251L American Sign Language III Laboratory 0 credits. F

CSED 2252 American Sign Language IV 4 credits. Linguistic features of ASL are expanded, including inflection, spatialization, movement, redundancy, and use of facial expression and body posture. Emphasizes vocabulary development. PREREQ: CSED 2251, CSED 2251L, and Sign Language Studies major or permission of instructor. COREQ: CSED 2252L. S

CSED 2252L American Sign Language IV Laboratory 0 credits. S

CSED 2255 Creative Signing 3 credits. Techniques of facial expression, body movements, and ASL features as used in performing arts settings. Skills are developed through pantomime, song, and other activities. S

CSED 2256 Deaf Culture and Community 3 credits. An information course emphasizing aspects of deafness and deaf culture that are related to language study and minority group dynamics. Satisfies Objective 9 of the General Education Requirements. PREREQ: CSED 1151 and CSED 1151L. F

CSED 3315 Clinical Processes: Pediatric 3 credits. Assessment and treatment principles, methods, and procedures in speech language pathology with focus on the pediatric population. PREREQ: CSED 3321, and CSED 3330, or permission of the instructor. S

CSED 3321L Clinical Phonetics and Phonology Lab 1 credit. Required laboratory portion of CSED 3321 for emphasis pre-speech-language pathology. Not required for Pre-Audiology emphasis. Skill development in use of International Phonetic Alphabet. COREQ: CSED 3321. F

CSED 3325 Speech Sound Development and Disorders 3 credits. Introduction to childhood speech development and disorders. Basic clinical principles and procedures for diagnosis and treatment of disorders of speech sound production. PREREQ: CSED 3321 with a grade of “C” or better or permission of instructor. S


CSED 3335 Language Disorders 3 credits. Study of children with developmental delays and disorders of language. Includes etiology, characteristics, assessment and intervention principles. Introduction to language diversity. PREREQ: CSED 3330 or permission of instructor. S

CSED 3340 Communication Disorders Life-time Perspective 3 credits. 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: CSED 3321 and CSED 3330 or permission of the instructor. S

CSED 3341 Audiology and Hearing Science 3 credits. Introduction to basic hearing science, sound measurement, audiology, tympanometry, hearing disorders, public school screening, and methods of aural rehabilitation. Review of role of audiology in human services. F
CSED 3351 American Sign Language V 4 credits. Intensive practice involving expressive and receptive skills in various language activities. Introduces language forms in poetry, art, and theater. Explores signing styles and registers. PREREQ: CSED 2252. COREQ: CSED 3351L. F

CSED 3351L American Sign Language Laboratory 0 credits. F

CSED 3352 American Sign Language VI 4 credits. Structural properties of ASL compared with other languages. Includes phonology, morphology, syntax, and semantics. PREREQ: CSED 3351. COREQ: CSED 3352L. S

CSED 3352L American Sign Language VI Laboratory 0 credits.

CSED 3353 Interpreting Seminar 4 credits. Presents theoretical models, concepts, and language skills and ethical considerations necessary to render the source language into an accurate, culturally appropriate equivalent in the target language. PREREQ: CSED 2250, CSED 2250L, CSED 3352, and permission of instructor. F

CSED 3353L Interpreting Seminar Laboratory 0 credits. Assignments to apply principles in CSED 3353. COREQ: CSED 3353. F

CSED 3354 Interpreting 4 credits. 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. PREREQ: CSED 3353 and permission of instructor. S

CSED 3354L Interpreting Laboratory 0 credits. Assignments to apply principles in CSED 3354. COREQ: CIS 3354. S

CSED 4405 Neurological Bases of Communication Disorders 3 credits. Fundamentals of neuroanatomy and physiology related to speech, language and hearing. Introduction to communication disorders related to neurological damage. S

CSED 4415 Clinical Practicum in Audiology 1-2 credits. 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 up to 6 credits. PREREQ OR COREQ: CSED 4416. F, S

CSED 4416 Audiology Methods and Applications 1 credit. Introductory training and experience in audiologic clinical procedures. PREREQ: Completion of CSED 3341 and permission of instructor. F


CSED 4420 Clinical Processes: Adult 3 credits. Assessment and treatment principles, methods, and procedures in speech language pathology with focus on the adult population. PREREQ: CSED 3315, CSED 3325, and CSED 3335, or permission of the instructor. F, Su

CSED 4425 Speech Language Pathology Methods and Application 3 credits. Application of assessment and treatment principles, methods, and procedures in speech and language disorders through classroom experiences, observation, and clinical experiences. For students planning to pursue graduate education. PREREQ: CSED 3315, CSED 3325, CSED 3335, and CSED 4420 or permission of the instructor. S

CSED 4435 Speech and Hearing Science 4 credits. 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: CSED 4435L. F

CSED 4435L Speech and Hearing Science Laboratory 0 credits. Required laboratory portion of CSED 4435. F

CSED 4440 Special Topics Workshop 1-3 credits. 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

CSED 4445 Aural Rehabilitation 3 credits. Aural rehabilitation of the hearing impaired. Consideration of amplification, speech reading, auditory training, and other aspects of the process. PREREQ: CSED 3341 or permission of instructor. S

CSED 4449 Fingerspelling and Numbers 3 credits. Improve receptive 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. F

CSED 4452 Manually Coded English 3 credits. Introduces the conversational signer to MCE, developed for the education of the hearing impaired child. Designed for educational interpreters who plan to work in K-8 educational settings. PREREQ: Permission of instructor. S

CSED 4453 Transliterating I: Voice to Sign 4 credits. Theoretical and practical “hands-on” approach to the process of sign language transliterating. Students will render spoken messages in English into contact varieties and signed English, using sample discourses and texts as appropriate to K-12 educational settings. PREREQ: CSED 3354 and permission of instructor. COREQ: CSED 4453L. F

CSED 4453L Transliterating I: Voice to Sign Laboratory 0 credits. Assignments to apply principles taught in CSED 4453. COREQ: CSED 4453. F

CSED 4454 Transliterating II: Sign to Voice 4 credits. Continuation of the theoretical and practical “hands-on” approach to sign language transliterating. Render contact varieties and signed English messages into spoken English. PREREQ: CSED 3354 and permission of the instructor. COREQ: CSED 4454L. S

CSED 4454L Transliterating II: Sign to Voice Laboratory 0 credits. Assignments to apply principles taught in CSED 4454. COREQ: CSED 4454. S

CSED 4456 Psychosocial Aspects of Deafness 3 credits. 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: CSED 3351 with a “B” or better. F

CSED 4460 Educational Audiology 3 credits. 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, ASu

CSED 4461 The Professional Interpreter 3 credits. 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

CSED 4470 Field Observation in Interpreting 2 credits. Student will be assigned to observe in an elementary/secondary or post-secondary school for six hours per week. May be repeated for up to 8 credits. PREREQ: Permission of advisor. F, S

CSED 4473 Collaboration 2 credits. 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

CSED 4474 Educational Interpreting Internship 4-8 credits. 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 to a maximum of 8 credits. PREREQ: Permission of advisor. F, S

CSED 4480 Genetics for Health Care 3 credits. An in-depth, interdisciplinary examination 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

CSED 4482 Independent Study 1-4 credits. Study of problems selected by students and faculty. May be repeated up to 8 credits. D

CSED 4491 Seminar 1-4 credits. Reading, preparation, and discussion of reports and projects in all areas of speech and hearing science, speech pathology and audiology. May be repeated up to 12 credits. D
Department of Physical and Occupational Therapy

Chair and Associate Professor: Creelman
OT Program Director and Associate Professor: Gee
Assistant Professors: Dye, Kendall
Clinical Associate Professors: Seiger, Thompson
Clinical Assistant Professors: Alexander, Jackman, Lloyd, Peterson, Ralphs
Adjunct Faculty: Anderson, Meldrum, Rodnick, Owens, Urfer

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 prerequisite 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 or department website at http://www.isu.edu/dpot/.

Pre-Physical Therapy Preparation

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.

- **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.

- **PHYSICS (2 courses)**
  1. & 2. Introductory Physics with laboratory, 2 semesters or 2-3 quarters. A more recently completed physics course at upper division or graduate level with laboratory may also meet this requirement. Must be courses for science majors.

- **MATHEMATICS (1 course)**

  1. Statistics - 3 or more units. Courses about research methods or tests and measurements will NOT meet this requirement.

- **PSYCHOLOGY and SOCIOLOGY or ANTHROPOLOGY or HEALTH SCIENCE (5 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 (2-3 credits).

  **MEDICAL TERMINOLOGY (1 semester)**

  1. One semester of medical terminology.

Computer Competence and Technical Writing

Applicants must be competent in working with computers and be able to use word processing and spreadsheet software prior to entry into the program. A course in technical writing is strongly recommended.

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 admission.

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 profes-
sions. 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 Science in Health Science degree and anticipated 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.

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**Prerequisites for Admission to the Master of Occupational Therapy Program**

- **SOCIAL BEHAVIORAL SCIENCE** (4 courses, 3 credits each)
  - Human Development - 1 semester
  - Sociology - 1 semester
  - Cultural Anthropology - 1 semester
  - Abnormal Psychology - 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 credits. Courses about research methods or tests and measurements will NOT meet this requirement.

- **ENGLISH/COMMUNICATION** (2 courses)
  - Composition - 3 credits
  - Speech Communication - 2 or 3 credits

- **OTHER REQUIRED COURSES**
  - At least 5 courses from this category are required, 3 credits each, chosen from:
    - economics
    - education
    - ethics
    - fine arts
    - history
    - humanities
    - literature
    - philosophy
    - foreign language

- **HIGHLY RECOMMENDED:**
  - Introductory Physics with Laboratory

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**Bachelor of Science in Health Science**

**Concentration 1:**

**Pre-Occupational Therapy (42 cr)**

**Required Courses:**

- General Education Objectives (min) 36 cr
  - BS in Health Science Core 20-24 cr
- ANT H 2238 Peoples and Cultures of the New World 3 cr
- BIOL 3302, 3302L Anatomy and Physiology, and Lab 4 cr
- CHEM 1111 I, 1111L General Chemistry I, and Lab 5 cr
- ENGL 1111 English Composition 3 cr
- MATH 1153 Introduction to Statistics 3 cr
- PSYC 2225 Child Development 3 cr
- PSYC 3301 Abnormal Psychology 3 cr
- SOC 1101 Introduction to Sociology 3 cr
- 5 additional courses (3 credits each) from: economics education ethics fine arts foreign language humanities literature philosophy

- Electives 18-22 cr

**Highly Recommended Electives:**

- ENGL 3307 Professional and Technical Writing 3 cr
- PHYS 1111 I, 1113 General Physics I, and Lab 4 cr
- TOTAL 120 cr

See the Bachelor of Science in Health Science in the Division of Health Sciences section of the catalog for additional information.

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**Bachelor of Science in Health Science**

**Concentration 2:**

**Pre-Occupational Therapy, Accelerated (46 cr):**

**Required Courses:**

- General Education Objectives (min) 36 cr
  - BS in Health Science Core 20-24 cr

**Accelerated Occupational Therapy Concentration (46 cr):**

- ANT H 2238 Peoples and Cultures of the New World 3 cr
  (satisfies General Education Objective 9)
- BIOL 3302, 3302L Anatomy and Physiology, and Lab 4 cr
- CHEM 1111 I, 1111L General Chemistry I, and Lab 5 cr
  (the 2 sets of courses above satisfy General Education Objective 5)
- MATH 1153 Introduction to Statistics 3 cr
  (satisfies General Education Objective 3)

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**Computer Competence**

Applicants must be competent in working with computers and be able to use word processing and spreadsheet software prior to entry into the program.
ENGL 1101  English Composition  3 cr
PSYC 3301  Abnormal Psychology  3 cr
PSYC 2225  Child Development  3 cr
SOC 1101  Introduction to Sociology  3 cr
(partially satisfies General Education Objective 6)
5 additional courses (3 credits each) from: 15 cr
economics  education  ethics
fine arts  foreign language  history
humanities  literature  philosophy
*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</td>
<td>5 cr</td>
</tr>
<tr>
<td>BIOL 4486</td>
<td>Human Systemic Physiology</td>
<td>5 cr</td>
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<tr>
<td>PTOT 4412</td>
<td>Professional Communication</td>
<td>2 cr</td>
</tr>
<tr>
<td>PTOT 4413</td>
<td>Occupational Therapy Profession</td>
<td>3 cr</td>
</tr>
<tr>
<td>PTOT 4401</td>
<td>Kinesiology and Biomechanics</td>
<td>4 cr</td>
</tr>
<tr>
<td>PTOT 4402</td>
<td>Clinical Neuroscience</td>
<td>5 cr</td>
</tr>
<tr>
<td>PTOT 4421</td>
<td>Self-Exploration in Occupational Therapy</td>
<td>3 cr</td>
</tr>
<tr>
<td>PTOT 4422</td>
<td>Occupational Performance</td>
<td>3 cr</td>
</tr>
<tr>
<td>PTOT 4442</td>
<td>Occupational Performance Laboratory</td>
<td>1 cr</td>
</tr>
</tbody>
</table>

**TOTAL:** 120 cr

See the Bachelor of Science in Health Science in the Division of Health Sciences section of the catalog for additional information.

**Physical and Occupational Therapy Courses**

**PTOT 2209 Introduction to Occupational Therapy 1 credit.** 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 4401 Clinical Kinesiology and Biomechanics 4 credits.** Analysis of normal and pathological human movement in joints, posture, gait, and the vertebral column. Application of movements to therapeutic interventions is emphasized. PREREQ: “B-” or better in BIOL 4474. S

**PTOT 4402 Clinical Neuroscience 5 credits.** 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: “B-” or better in BIOL 4474 and BIOL 4486. S

**PTOT 4412 Professional Communication 2 credits.** 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 credits.** 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 credits.** 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 credits.** Person/occupation/environment interactions are examined from the perspective of multiple theories and models that analyze typical occupations and address performance dysfunctions. PREREQ: “B” or better in PTOT 4413 and PTOT 4421. COREQ: PTOT 4442. S

**PTOT 4442 Occupational Performance Laboratory 1 credit.** 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: (Vacant)
Associate Dean: David W. Rodgers, Ph.D.

Mission
The College of Science and Engineering provides students with a comprehensive education to prepare them 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 is divided into 7 units: the Departments of Biological Sciences, Chemistry, Geosciences, Mathematics, and Physics; Computer Science; and the School of Engineering. Engineering is further divided into 4 departments: Civil and Environmental Engineering, Electrical Engineering, Mechanical Engineering, and Nuclear Engineering and Health Physics. Collaboration between units is a characteristic feature of the college: students take courses from several departments, faculty co-advice students, and research teams cross disciplinary boundaries.

Degrees Offered
Each Department offers a range of undergraduate degrees pertinent to their discipline. Depending upon the department, these may include the Associate of Science (A.S.), 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.

The School of Engineering has additional specific advising requirements such that every student taking an Engineering class must meet with an advisor prior to registration each semester.

Finally, ISU Central Academic Advising provides academic assistance to all students 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. 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 BA 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</td>
<td>Biology I, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 1102</td>
<td>Biology II, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 2206</td>
<td>Cell Biology, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 2209,2209L</td>
<td>General Ecology, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 3358</td>
<td>Genetics</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL 4417</td>
<td>Organic Evolution</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL 4491,4492</td>
<td>Seminars</td>
<td>2 cr</td>
</tr>
</tbody>
</table>
Students in the B.A. in Biology program with the Concentration in Natural History should meet with an advisor to select the most appropriate courses for their interests. Students in this program may consider a Minor in another program, such as Outdoor Education (see the College of Education, Department of Sport Science and Physical Education, for details) or Geology (see College of Science and Engineering, Department of Geosciences for details).

In addition to completing the Required Core courses and the General Education requirements, 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 and 2 courses with Plant emphasis

*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

Suggested Supporting Courses from Other Departments:

**Concentration in 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 also is 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 degree must satisfy 8 of the 9 General Education Objectives (a minimum of 36 credits—see the Academic Information section of this Catalog). Students must also satisfy the core requirements listed below, the requirements for one of the biochemistry tracks, and 9 credits of elective courses in Biology, Chemistry, and Biomedical and Pharmaceutical Sciences. All graduates of this program will earn a B.S. in Biochemistry, irrespective of which track is selected.

**Required Supporting Science Courses:**

MATH 1160 Applied Calculus

CHEM 1111, 1111L General Chemistry I and Lab

CHEM 1112, 1112L General Chemistry II and Lab

BIOL 1101, 1101L Biology I and Lab

BIOL 1102, 1102L Biology II and Lab

BIOL 2235, 2235L General Microbiology

BIOL 3358 Genetics

BIOL 4437 CHEM 4438 Experimental Biochemistry

BIOL 4444, 4444L Cell and Molecular Biology, and Lab

CHEM 3331, 3334 General Chemistry I, and Lab

CHEM 2211, 2213 General Physics I, and Lab

PHYS 1111, 1111L General Physics I and Lab

PHYS 1112, 1112L General Physics II and Lab

MATH 1170 Calculus I

MATH 1175 Calculus II

MATH 4445

CHEM 3301, 3303 Organic Chemistry I, and Lab

CHEM 3302, 3304 Organic Chemistry II, and Lab

CHEM 3341 Topics in Physical Chemistry

CHEM 3342 Topics in Physical Chemistry

MATH 1170 Calculus I

MATH 1175 Calculus II

PHYS 1111, 1111L General Physics I, and Lab

PHYS 1112, 1112L General Physics II, and Lab

Subtotal: 71 cr

Additional credits to satisfy General Education Requirements (min) 27 cr

Total: 97 cr

*Students must pass core courses with a grade of C- or better.

**May elect to take CHEM 3351 and 3352 instead of CHEM 3341 and 3342.

***PHYS 2211, 2212, 2213, 2214 may be taken to fulfill the Physics requirement in the core curriculum.

**Concentration Requirements**

Students must satisfy the requirements for one of the biochemistry concentrations listed below. All graduates will earn a B.S. in Biochemistry, irrespective of which concentration is selected.

**Concentration 1: Biological Chemistry**

CHEM 2211, 2213 Inorganic Chemistry, and Lab

CHEM 3331, 3334 Instrumental Analysis, and Lab

CHEM 4492 Seminar
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 the biological sciences and the flexibility of major concepts in the discipline as well as electives in chemistry and physics, as well as electives in mammalian anatomy and physiology, development, and neurobiology. The B.S. 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.

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:

BIOL 3301, 3301L Anatomy and Physiology I, and Lab 4 cr
BIOL 3302, 3302L Anatomy and Physiology II, and Lab 4 cr

Upper Division BMS Electives:

Select a minimum of 12 credits from the following:

BIOL 3305 Introduction to Pathobiology 3 cr
BIOL 3324, 3324L Developmental Biology, and Lab 4 cr
BIOL 4400, 4400L Oral Histology and Embryology, and Lab 3 cr

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).

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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:

BIOL 3301, 3301L Anatomy and Physiology I, and Lab 4 cr
BIOL 3302, 3302L Anatomy and Physiology II, and Lab 4 cr

Upper Division BMS Electives:

Select a minimum of 12 credits from the following:

BIOL 3305 Introduction to Pathobiology 3 cr
BIOL 3324, 3324L Developmental Biology, and Lab 4 cr
BIOL 4400, 4400L Oral Histology and Embryology, and Lab 3 cr
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>BIOL 4415</td>
<td>Human Neurobiology</td>
<td>4 cr</td>
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<tr>
<td>BIOL 4419,4419L</td>
<td>Mammalian Histology, and Lab*</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 4423</td>
<td>General Parasitology</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL 4432</td>
<td>Biochemistry</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL 4437</td>
<td>Experimental Biochemistry</td>
<td>1 cr</td>
</tr>
<tr>
<td>BIOL 4433,4432L</td>
<td>Microbial Physiology, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 4440,4440L</td>
<td>Human Gross Anatomy, and Lab*</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 4443</td>
<td>Endocrinology</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL 4444,4444L</td>
<td>Cell and Molecular Biology, and Lab</td>
<td>5 cr</td>
</tr>
<tr>
<td>BIOL 4449</td>
<td>Human Physiology I*</td>
<td>3 cr</td>
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<tr>
<td>BIOL 4450,4450L</td>
<td>Head and Neck Anatomy, and Lab*</td>
<td>3 cr</td>
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<tr>
<td>BIOL 4451,4451L</td>
<td>Immunology and Lab</td>
<td>4 cr</td>
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<tr>
<td>BIOL 4455</td>
<td>Pathogenic Microbiology</td>
<td>3 cr</td>
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<tr>
<td>BIOL 4456</td>
<td>Human Physiology II*</td>
<td>4 cr</td>
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<tr>
<td>BIOL 4463,4463L</td>
<td>Human Pathophysiology, and Lab*</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 4466</td>
<td>Medical Microscopy</td>
<td>3 cr</td>
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<tr>
<td>BIOL 4470</td>
<td>Cross-sectional Anatomy*</td>
<td>2 cr</td>
</tr>
<tr>
<td>BIOL 4475</td>
<td>General Virology</td>
<td>3 cr</td>
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<tr>
<td>BIOL 4486,4486L</td>
<td>Human Systemic Physiology, and Lab*</td>
<td>5 cr</td>
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<tr>
<td>BIOL 4481 or 4482 Independent Problems</td>
<td>1-4 cr</td>
<td></td>
</tr>
<tr>
<td>BIOL 2280 and/or 4480 Mentored Research Alliance</td>
<td>2 cr</td>
<td><em>indicates limited enrollment for undergraduates</em>/BIOL 4432Biochemistry and BIOL 5524Developmental Biology—are strongly recommended as these are often required by Medical, Dental, and Veterinary schools.</td>
</tr>
</tbody>
</table>

### Microbiology:
- **BIOL 2221,2221L** Introductory Microbiology, and Lab | 4 cr |
- OR BIOL 2235,2235L General Microbiology, and Lab | 4 cr |

### Total BMS Concentration Requirements:
- Anatomy and Physiology | 5-8 cr |
- BMS Electives | 12 cr |
- Microbiology | 4 cr |
- Minimum Total | 21-24 cr |
- Core Requirements | 79-80 cr |
- Total | 100-104 cr |

### 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 cr |
- BIOL 4493 Senior Thesis | 4 cr |

**Ecology Courses**
- Select a minimum of 8 credits from the following:
  - BIOL 1192 Careers in Ecology and Conservation Biology | 1 cr |
  - BIOL 3337 Conservation Biology | 3 cr |
  - BIOL 4408 Plant Ecology | 3 cr |
  - BIOL 4416,4416L Population Ecology, and Lab | 4 cr |
  - BIOL 4418 Ecological Topics | 1 cr |
  - BIOL 4442 Plant-Animal Interactions | 3 cr |
  - BIOL 4459,4459L Fish Ecology, and Lab | 4 cr |
  - BIOL 4462,4462L Freshwater Ecology, and Lab | 4 cr |

**Diversity or Evolutionary Courses**
- Select a minimum of 8 credits from the following:
  - BIOL 2213 Fall Flora | 2 cr |
  - BIOL 2214 Spring Flora | 2 cr |
  - BIOL 3310,3310L Invertebrate Zoology, and Lab | 4 cr |
  - BIOL 4406,4406L Plant Diversity and Evolution, and Lab | 4 cr |
  - BIOL 4412,4412L Systematic Botany, and Lab | 4 cr |
  - BIOL 4423 General Parasitology | 3 cr |
  - BIOL 4426,4426L Herpetology, and Lab | 4 cr |
  - BIOL 4427,4427L Ichthyology, and Lab | 4 cr |
  - BIOL 4431,4431L General Entomology, and Lab | 4 cr |
  - BIOL 4434,4434L Microbial Diversity, and Lab | 4 cr |
  - BIOL 4438 Ornithology | 4 cr |
  - BIOL 4441,4441L Mammalogy, and Lab | 4 cr |
  - BIOL 4495 Animal Behavior | 4 cr |

**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 4482) and AMOEBA (Mentored Research Alliance, BIOL 2280 and/or 4480).

### Total ECB Concentration Requirements

- Field Research Experience | 4 cr |
- Ecology Courses | 8 cr |
- Diversity or Evolutionary Courses | 8 cr |
- Biology Electives | 3 cr |
- Minimum Total | 23 cr |
- Core Requirements | 79-80 cr |
- Total | 102-103 cr |

### Concentration in Integrative Organismal Biology (IOB)

The concentration in Integrative Organismal Biology (IOB) focuses on understanding 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:
- BIOL 3301,3301L Anatomy and Physiology I, and Lab | 4 cr |
- BIOL 3302,3302L Anatomy and Physiology II, and Lab | 4 cr |
- BIOL 3304 Comparative Vertebrate Morphology and Physiology | 5 cr |
- BIOL 3304L Vertebrate Morphology and Physiology Lab | 0 cr |
- BIOL 3324,3324L Developmental Biology, and Lab | 4 cr |
- BIOL 4407 Plant Physiology | 3 cr |
- BIOL 4405,4405L Plant Form and Function, and Lab | 4 cr |
- BIOL 4419,4419L Mammalian Histology, and Lab | 4 cr |
- BIOL 4432 Biochemistry | 3 cr |
- BIOL 4443 Endocrinology | 3 cr |
- BIOL 4464 Lectures in Human Physiology | 4 cr |

#### Diversity or Evolutionary Courses—Select a minimum of 8 credits from the following:
- BIOL 2213 Fall Flora | 2 cr |
- BIOL 2214 Spring Flora | 2 cr |
- BIOL 3310,3310L Invertebrate Zoology, and Lab | 4 cr |
- BIOL 4406,4406L Plant Diversity and Evolution, and Lab | 4 cr |
- BIOL 4412,4412L Systematic Botany, and Lab | 4 cr |
- BIOL 4423 General Parasitology | 3 cr |
- BIOL 4426,4426L Herpetology, and Lab | 4 cr |
- BIOL 4427,4427L Ichthyology, and Lab | 4 cr |
- BIOL 4431,4431L General Entomology, and Lab | 4 cr |
- BIOL 4434,4434L Microbial Diversity, and Lab | 4 cr |
- BIOL 4438 Ornithology | 4 cr |
- BIOL 4441,4441L Mammalogy, and Lab | 4 cr |
- BIOL 4495 Animal Behavior | 4 cr |

**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 4482) and AMOEBA (Mentored Research Alliance, BIOL 2280 and/or 4480).

### Total IOB Concentration Requirements

- Anatomy, Physiology, or Development courses | 8 cr |
- Diversity or Evolutionary Courses | 8 cr |
- Biology Electives | 8 cr |
- Minimum Total | 24 cr |
- Core Requirements | 79-80 cr |
- Total | 103-104 cr |
Bachelor of Science in Botany

The B.S. degree in Botany is designed to prepare students for professional and graduate schools. These majors incorporate the biology, chemistry, mathematics, and physics required to meet the admission requirements of most graduate and professional schools. Included in these programs are the General Education Requirements as well as electives which permit considerable breadth in training.

The purpose of the B.S. in Botany is to serve students who seek to develop a strong background in the core areas of Plant Sciences. Majors receive advance training in specific fields of study to provide experiences that are professionally relevant. The B.S. in Botany major is recommended to students who plan careers related to the biology of plants, including areas like plant conservation, developmental biology, ecology, evolutionary biology, horticulture, physiology, and systematics.

The Botany degree prepares students for direct employment with public agencies and private companies, or for entry into graduate school.

1. Courses in Biological Sciences

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1101, 1101L</td>
<td>Biology I and Lab</td>
</tr>
<tr>
<td>BIOL 1102, 1102L</td>
<td>Biology II and Lab</td>
</tr>
<tr>
<td>BIOL 2206, 2207</td>
<td>Cell Biology, and Lab</td>
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<tr>
<td>BIOL 2209, 2209L</td>
<td>General Ecology, and Lab</td>
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<tr>
<td>BIOL 3358</td>
<td>Genetics</td>
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<tr>
<td>BIOL 4404</td>
<td>Elements of Plant Physiology</td>
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<tr>
<td>BIOL 4404L</td>
<td>Plant Physiology Lab*</td>
</tr>
<tr>
<td>BIOL 4406, 4406L</td>
<td>Plant Diversity and Evolution, and Lab</td>
</tr>
<tr>
<td>BIOL 4408</td>
<td>Plant Ecology</td>
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<tr>
<td>BIOL 4408L</td>
<td>Plant Ecology Lab*</td>
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<tr>
<td>BIOL 4412, 4412L</td>
<td>Systematic Botany, and Lab</td>
</tr>
<tr>
<td>BIOL 4417</td>
<td>Organic Evolution</td>
</tr>
<tr>
<td>BIOL 4491, 4492</td>
<td>Seminars</td>
</tr>
</tbody>
</table>

*These labs are optional.

Plus at least 6 credits from the following upper division Botany electives:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>BIOL 4405, 4405L</td>
<td>Plant Form and Function, and Lab</td>
</tr>
<tr>
<td>BIOL 4416, 4416L</td>
<td>Population Ecology, and Lab</td>
</tr>
<tr>
<td>BIOL 4442, 4442L</td>
<td>Plant-Animal Interactions, and Lab</td>
</tr>
<tr>
<td>BIOL 4449</td>
<td>Field Ecology</td>
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<tr>
<td>BIOL 4481/4482</td>
<td>Independent Problems</td>
</tr>
<tr>
<td>BIOL 4493</td>
<td>Senior Thesis</td>
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2. Courses in Mathematics and Statistics*

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<tr>
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<td>Biometry Laboratory</td>
</tr>
<tr>
<td>MATH 1160</td>
<td>Biometry Laboratory</td>
</tr>
<tr>
<td>MATH 3350</td>
<td>Statistical Methods</td>
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3. Courses in Chemistry and Physics**

<table>
<thead>
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<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>CHEM 1111, 1111L</td>
<td>General Chemistry I, and Lab</td>
</tr>
<tr>
<td>CHEM 1112, 1112L</td>
<td>General Chemistry II, and Lab</td>
</tr>
<tr>
<td>CHEM 3301, 3303</td>
<td>Organic Chemistry I, and Lab</td>
</tr>
<tr>
<td>PHYS 1111, 1113</td>
<td>General Physics I, and Lab</td>
</tr>
</tbody>
</table>

Notes:

* Students may take MATH 1170 in place of MATH 1160.

4. Required Quantitative Skills

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>BIOL 3316</td>
<td>Biometry Laboratory</td>
</tr>
<tr>
<td>MATH 3350</td>
<td>Statistical Methods</td>
</tr>
<tr>
<td>PHYS 1111, 1113</td>
<td>General Physics I, and Lab</td>
</tr>
</tbody>
</table>

5. Required Supporting Sciences

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>CHEM 1111, 1111L</td>
<td>General Chemistry I, and Lab</td>
</tr>
<tr>
<td>CHEM 3301, 3303</td>
<td>Organic Chemistry I, and Lab</td>
</tr>
<tr>
<td>MATH 1160</td>
<td>Applied Calculus</td>
</tr>
</tbody>
</table>

Notes:

* It is recommended that additional credits be taken in BIOL 4481-4482, Independent Problems, or BIOL 4493, Senior Thesis, in the area of ecology. A maximum of 8 credits of BIOL 4481/4482 may be applied to this degree program. ECON 2201 and 2202 are highly recommended (only 3 credits apply toward Objective 6 of the General Education Requirements). In addition, a student should take a minimum of 9 credits in a single area of concentration outside the Biological Sciences Department, e.g. business, computer science, political science.

** Many graduate programs in Ecology, including Idaho State University’s M.S. and Ph.D. programs, require one year of organic chemistry and one year of physics. If you plan to apply to a graduate program, you are advised to include these courses in your undergraduate program. In many cases a semester of biochemistry can be used in place of the second semester of organic chemistry.

*** A class may not be used to satisfy requirements in more than one area (e.g. Calculus II may not be used to satisfy the Quantitative Skills requirement and the Supporting Sciences requirement).

† Students may take MAT 1170 in place of MAT 1160. MAT 1160 has a prerequisite of MAT 1143. MAT 1170 has a prerequisite of MAT 1143 and 1144. Prerequisites requirements may be satisfied by the Mathematics placement exam.

§ Students may take MAT 1270 in place of MAT 1260. MAT 1260 has a prerequisite of MAT 1243. MAT 1270 has prerequisites of MAT 1243 and 1144. Prerequisites for both classes can be satisfied by the Mathematics placement exam. The requirement for MAT 3350 and BIOL 3316 may be met by MGT 2216 and MGT 2217. MAT 1160 does not satisfy this requirement.

‡ Credits for BIOL 4481, 4482, 4493 or 4499 can be substituted for courses in categories 2, 3, and 4, subject to approval by the Assistant Chair for Undergraduate
BACHELOR OF SCIENCE IN MICROBIOLOGY

Core Requirements

Students pursuing a Bachelor of Science degree must satisfy all of the General Education Objectives (a minimum of 36 credits). Students must also satisfy the core requirements listed below, the requirements for one of the microbiology concentrations, and 6-8 credits of elective courses in Microbiology. All graduates of this program will earn a B.S. in Microbiology, irrespective of which concentration is selected.

Elective Courses:

In addition to the core courses and the courses in either Concentration 1 or Concentration 2, students must choose elective credits from the following course list. Courses taken to satisfy the concentration requirements will not count toward the electives requirement.

Elective Courses (from list below)

- BIOL 4473, 4473L
- PHYS 11
- MATH 1
- CHEM 2232, 2234
- BIOL/CHEM 4447†
- BIOL 2235, 2235L
- BIOL 4444, 4444L
- BIOL 3358
- BIOL 4432† Biochemistry†
- OR BIOL 4445
- BIOL 4433, 4433L
- BIOL 4444, 4444L
- BIOL 3338
- BIOL 4447
- BIOL 4477 or 4478
- BIOL 4479
- BIOL 4481
- BIOL 4482
- Independent Problems (max) 3 cr
- BIOL 2280 and/or 4480

Notes:

• Additional courses in Mathematics that are highly recommended for students planning to attend graduate school are MATH 1175 (prerequisite is MATH 1170), 2275, 3330, or 3360.
• In order to satisfy the Biochemistry course requirement, students in Concentration 1 must take BIOL/CHEM 4445 (Biochemistry I) and BIOL/CHEM 4447 (Biochemistry II) instead of BIOL 4432. Students will not receive credit for both BIOL 4432 and the BIOL/CHEM 4445/4447 sequence.

CONCENTRATION 2: Medical Microbiology/Pre-Health Professions, for students interested in:

- medical microbiology
- immunology
- the health professions

Elective Courses (from list below)

- BIOL 4454 Advanced Immunology 3 cr
- BIOL 4455, 4455L Pathogenic Microbiology, and Lab 5 cr
- BIOL 4475 General Virology 3 cr
- BIOL 4477 or 4478 Bacterial or Animal Virology Lab 1 cr

Notes:

- Additional courses in Mathematics that are highly recommended for students planning to attend graduate school are MATH 1175 (prerequisite is MATH 1170), 2275, 3330, or 3360.
- In order to satisfy the Biochemistry course requirement, students in Concentration 1 must take BIOL/CHEM 4445 (Biochemistry I) and BIOL/CHEM 4447 (Biochemistry II) instead of BIOL 4432. Students will not receive credit for both BIOL 4432 and the BIOL/CHEM 4445/4447 sequence.

Bachelor of Science in Zoology

The purpose of the B.S. in Zoology is to serve students who have a broad interest in zoology and who seek to develop a strong background in supporting disciplines. Majors gain substantial exposure to concepts in math and the physical sciences, broad exposure to cell biology, genetics, anatomy, physiology, and animal diversity, and the opportunity to develop strengths in specific disciplines. This degree fosters knowledge and understanding of major concepts in the discipline as well as the processes of scientific investigation. The B.S. in Zoology prepares students to pursue graduate education, to satisfy the admission requirement for health-related professional schools, and to develop investigative skills.

Students who complete three years of the curriculum in zoology with a grade point average of 2.5 or higher may be eligible to receive a B.S. degree in zoology after completion of the first year of study at a departmentally approved school of dentistry or veterinary medicine. Students choosing this option must complete a minimum of 96 credits, satisfy all Idaho State University General Education Requirements, and complete all courses numbered lower than 4000 which are required by the zoology curriculum. Students are advised to consult with the Assistant Chair for Undergraduate Programs of the Department of Biological Sciences or the Pre-health Advisor early in their undergraduate programs if they plan to pursue this program option. Students should be aware that if the program is in decline, and few applicants matriculate into schools of dentistry or veterinary medicine prior to completion of a bachelor’s degree.

Required Courses*: **

- BIOL 1101, 1101L Biology I, and Lab 4 cr
- BIOL 1102, 1102L Biology II, and Lab 4 cr
- BIOL 2206, 2207 Cell Biology, and Lab 4 cr
- BIOL 2209, 2209L General Ecology, and Lab 4 cr
- BIOL 3304 Comparative Vertebrate Anatomy 5 cr
- BIOL 3304L Vertebrate Morphology and Physiology Lab 0 cr
- BIOL 3310, 3310L Invertebrate Zoology, and Lab 4 cr
- BIOL 3324, 3324L Developmental Biology, and Lab 4 cr
- BIOL 3316 Biometry Laboratory 1 cr
- BIOL 4417 Organic Evolution 3 cr
- BIOL 3358 Genetics 3 cr
- BIOL 4491 Seminars 2 cr
- CHEM 1111, 1111L General Chemistry I, and Lab 5 cr
- CHEM 1112, 1112L General Chemistry II, and Lab 4 cr
- CHEM 3301, 3301L Organic Chemistry I, and Lab 4 cr
- CHEM 3302, 3302L Organic Chemistry II, and Lab 4 cr
- MATH 1147 Precalculus 5 cr
- MATH 1160 Applied Calculus 3 cr
- MATH 3350 Statistical Methods** 3 cr
- PHYS 1111, 1111L General Physics I, and Lab 4 cr
- PHYS 1112, 1112L General Physics II, and Lab 4 cr
- Electives (upper-division zoology) 6 cr

TOTAL: 78 cr

Notes:

**Students may take MATH 1170 in place of MATH 1160. MATH 1160 has a prerequisite of MATH 1143. MATH 1170 has prerequisites of MATH 1143 and 1144. Prerequisites for both classes can be satisfied by the Mathematics placement exam.
**The requirement for MATH 3350 and BIOL 3316 may be satisfied by taking MGT 2216 and MGT 2217. MATH 1153 does not satisfy this requirement.

Students pursuing a Bachelor of Science degree program must satisfy all of the General Education Objectives (a minimum of 36 credits).

Minor in Biology (28 cr)

- BIOL 1101, 1101L Biology I, and Lab 4 cr
- BIOL 1102, 1102L Biology II, and Lab 4 cr
- BIOL 2206, 2207 Cell Biology, and Lab 4 cr
- BIOL 2209, 2209L General Ecology, and Lab 4 cr
- BIOL 3358 Genetics 3 cr
- BIOL 4417 Organic Evolution 3 cr
- Upper division Biology courses 6-8 cr

TOTAL: 29-30 cr
**Minor in Botany**

BIOL 1101, 1101L Biology I, and Lab 4 cr
BIOL 1102, 1102L Biology II, and Lab 4 cr
BIOL 2206, 2207 Cell Biology, and Lab 4 cr
BIOL 2209, 2209L General Ecology, and Lab 4 cr
BIOL 3358 Genetics 3 cr
BIOL 4417 Organic Evolution 3 cr
Upper division Botany courses 7-8 cr

TOTAL: 28-30 cr

* BIOL 4481-4482 and BIOL 4491-4492 may not be used without prior approval of the departmental chair or assistant chair.

**Minor in Ecology**

BIOL 1101, 1101L Biology I, and Lab 4 cr
BIOL 1102, 1102L Biology II, and Lab 4 cr
BIOL 1192 Ecology Seminar 1 cr
BIOL 2209, 2209L General Ecology and Lab 4 cr

Any combination of the following courses to total 12 credits:

- BIOL 3320 Physiological Ecology 3 cr
- BIOL 3337 Conservation of Natural Resources 3 cr
- BIOL 4408, 4408L Plant Ecology, and Lab 3 cr
- BIOL 4416, 4416L Population Ecology, and Lab 5 cr
- BIOL 4418 Ecological Topics 2 cr
- BIOL 4459 Fish Ecology 4 cr
- BIOL 4462, 4462L Fresh Water Ecology, and Lab 4 cr
- BIOL 4476, 4476L Ecology of Water Pollution, and Lab 4 cr
- BIOL 4489 Field Ecology (BIOL 4481-4482 and BIOL 4491-4492 may not be used without prior approval of the departmental chair or assistant chair.)

**Minor in Microbiology**

BIOL 2235, 2235L General Microbiology and Lab 4 cr

Any combination of the following courses to total 14 credits:

- BIOL 3358 Genetics 3 cr
- BIOL 4432 Biochemistry 3 cr
- BIOL 4433, 4433L Microbial Physiology, and Lab 4 cr
- BIOL 4434, 4434L Microbial Diversity, and Lab 4 cr
- BIOL 4437/CEM 4438 Experimental Biochemistry 1 cr
- BIOL 4444, 4444L Cell and Molecular Biology, and Lab 5 cr
- BIOL 4451, 4451L Immunology, and Lab 4 cr
- BIOL 4455, 4455L Pathogenic Microbiology, and Lab 5 cr
- BIOL 4461 Advanced Genetics 3 cr
- BIOL 4475 General Virology 3 cr
- BIOL 4477 Bacterial Virology Laboratory 1 cr
- BIOL 4478 Animal Virology Laboratory 1 cr
- BIOL 4481, 4481L Experimental Virology 1 cr
- BIOL 4482, 4482L Field Virology 1 cr

* BIOL 4481-4482 and BIOL 4491-4492 may not be used without prior approval of the departmental chair or assistant chair.

**Biological Sciences Courses**

**BIOL 1100 Concepts Biology: Human Concerns 4 credits.** Considers biological issues related to human environment, population, and basic concepts of resource conservation. Historical, contemporary and future implications of these issues are discussed. Lectures, laboratories. COREQ: BIOL 1100L. Partially satisfies Objective 5 of the General Education Requirements. F, S

**BIOL 1100L Concepts Biology: Human Concerns Lab 0 credits.** Assignments to apply principles from BIOL 1100. Partially satisfies Objective 5 of the General Education Requirements. F, S

**BIOL 1101 Biolog 14 credits.** 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. Lectures, laboratories. COREQ: BIOL 1101L. Partially satisfies Objective 5 of the General Education Requirements. F, S

**BIOL 1101L Biology I Lab 0 credits.** Assignments to apply principles from BIOL 1101. Partially satisfies Objective 5 of the General Education Requirements. F, S

**BIOL 1102 Biology II 4 credits.** 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 credits.** 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. PRE-or-COREQ: CHEM 1112L. COREQ: BIOL 2207 for majors requiring BIOL 2207. S

**BIOL 2207 Cell Biology Laboratory 1 credit.** Experiments applying selected concepts from BIOL 2206. PREOR: BIOL 1101 and BIOL 1102; one year of college chemistry or permission of instructor. PRE-OR-COREQ: BIOL 2207. S

**BIOL 2209 General Ecology 4 credits.** Organisms in relation to their environment. Lectures, Laboratories, Field trips. PREREQ: BIOL 1101 and BIOL 1102. COREQ: BIOL 2209L. F

**BIOL 2209L General Ecology Lab 0 credit.** F

**BIOL 2213 Fall Flora 2 credits.** 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 credits.** 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 credits.** 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 1111L and CHEM 1111L; BIOL 1101. COREQ: BIOL 2221L. F, S

**BIOL 2221L Introductory Microbiology Laboratory 1 credit.** PRE-OR-COREQ: BIOL 2221. F, S

**BIOL 2230 Bioethics 3 credits.** 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 4 credits.** Comparative taxonomy, cytology, physiology, genetics, immunology, and ecology of microorganisms, and a survey of important applications. Lectures, laboratories. PREREQ: BIOL 1101 and CHEM 1112. COREQ: BIOL 2235L. F, S

**BIOL 2235L General Microbiology Lab 0 credit.** F, S

**BIOL 2280 Mentored Research Alliance 2 credits.** 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 3301 Anatomy and Physiology 4 credits.** Structures and functions of integumentary, skeletal, muscular, and nervous systems. Lectures, laboratories. PREREQ: BIOL 1101. COREQ: BIOL 3301L. F

**BIOL 3301L Anatomy and Physiology Lab 0 credit.** S

**BIOL 3302 Anatomy and Physiology 4 credits.** Structures and functions of circulatory, respiratory, urinary, digestive, endocrine, and reproductive systems. Lectures, laboratories. PREREQ: BIOL 1101. COREQ: BIOL 3302L. S

**BIOL 3302L Anatomy and Physiology Lab 0 credit.** S

**BIOL 3304 Comparative Vertebrate Morphology and Physiology 5 credits.** 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 1102, and one year of college chemistry. COREQ: BIOL 3304L. S

**BIOL 3304L Vertebrate Morphology and Physiology Lab 0 credit.** S

**BIOL 3306 Comparative Vertebrate Anatomy and Physiology 4 credits.** Comparative anatomy, histology, histochemistry and histochemistry and physiology of selected chordates, with representatives including fish, sharks, cats and humans. PREREQ: BIOL 1101 and 1102, and one year of college chemistry. COREQ: BIOL 3304. S
BIOL 3305 Introduction to Pathobiology 3 credits. 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 3301 and BIOL 3302. F

BIOL 3307 Radiobiology 2 credits. Online course. Survey of the effects of ionizing radiation on living matter at the subcellular, cellular, and organismal levels. PREREQ: BIOL 1101, and one of the following: PHYS 1100, PHYS 1111, or PHYS 2211. S

BIOL 3310 Invertebrate Zoology 4 credits. 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 credit. S

BIOL 3315 Introduction to Biometry 3 credits. Concepts of experimental design and microcomputer application of basic statistical techniques to analysis of biological data. Lectures, laboratories. PREREQ: BIOL 1101 and BIOL 1102. COREQ: BIOL 3315L. F, S

BIOL 3316 Biometry Laboratory 1 credit. 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. COREQ: MATH 3350. F, AS

BIOL 3324 Developmental Biology 4 credits. Fundamental principles and concepts of embryological development. Selected model systems will be studied to illustrate basic concepts in development. Lectures, laboratories. BIOL 1101 and BIOL 1102. COREQ: BIOL 3324L. S

BIOL 3324L Developmental Biology Lab 0 credit. S

BIOL 3337 Conservation Biology 3 credits. Pr: 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 credits. Basic principles of heredity, variation, and gene expression among eukaryotes, prokaryotes, and viruses. PREREQ: BIOL 2206 or BIOL 2235. F, S

BIOL 4400 Oral Histology and Embryology 3 credits. The microanatomy and formative processes of the teeth and their surrounding structures. Lectures, laboratories. COREQ: BIOL 4400L. S

BIOL 4400L Oral Histology and Embryology Lab 0 credit. S

BIOL 4404 Plant Physiology 3 credits. Study of plant physiological processes with emphasis on plant-environment interactions. Topics include physiological ecology, water relations, mineral nutrition, photosynthesis, respiration, translocation of photosynthetic compounds and phytohormones. PREREQ: BIOL 1101, BIOL 1102 and one year of college chemistry. AS

BIOL 4404L Plant Physiology Lab 1 credit. AS

BIOL 4405 Plant Form and Function 3 credits. 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. AF

BIOL 4405L Plant Form and Function Lab 1 credit. AF

BIOL 4406 Plant Diversity and Evolution 4 credits. Study of the reproduction, structure, development, evolution, and classification of the fungi, algae, bryophytes, and vascular plants. Lectures, laboratories. PREREQ: BIOL 1101 AND 1102. COREQ: BIOL 4406L. AF

BIOL 4406L Plant Diversity and Evolution Lab 0 credit. AF

BIOL 4408 Plant Ecology 3 credits. 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 and BIOL 1102. OS

BIOL 4408L Plant Ecology Lab 1 credit. OS


BIOL 4412L Systematic Botany Lab 0 credit. AS

BIOL 4413 Biology Teaching Methods 3 credits. 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 4415 Human Neurobiology 4 credits. Cellular-to-organismal structure and function of the human central nervous system (CNS), and CNS pathologies. PREREQ: permission of instructor. S

BIOL 4415L Human Neurobiology Lab 1 credit. Detailed examination of the gross anatomy and pathways of the human central nervous system. PREREQ: or permission of instructor. S

BIOL 4416 Population Ecology 3 credits. 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 credit. ES

BIOL 4417 Organic Evolution 3 credits. 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 credit. 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 credits. 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 credit. F

BIOL 4420 Musculo-Skeletal Anatomy 2 credits. 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. AS

BIOL 4423 General Parasitology 3 credits. 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 credits. 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. AS

BIOL 4426L Herpetology Lab 1 credit. AS

BIOL 4427 Ichthyology 3 credits. 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. AF

BIOL 4427L Ichthyology Lab 1 credit. Assignments to apply principles from BIOL 4427. EF

BIOL 4428 Medical Parasitology and Entomology 3 credits. Study of animal parasites, with an emphasis on protozoa, 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. AF

BIOL 4428L Medical Parasitology and Entomology Lab 0 credit. AF

BIOL 4429 Regional Anatomy and Histology 4 credits. Regional approach to gross human anatomy emphasizing the use of prospected materials and microscopic anatomy. Designed primarily for students in the Physician Assistant Program. Lectures, laboratories. PREREQ: BIOL 2301, BIOL 2302. COREQ: BIOL 4429L. F

BIOL 4429L Regional Anatomy and Histology Lab 0 credit. F

BIOL 4431 General Entomology 3 credits. Structure, development, classification, and life histories of insects, including ecological,
BIOL 4430 Microbial Diversity 3 credits.
Enrichment, cultivation, and isolation of prokaryotes from various metabolic groups and environments. Microorganisms will be identified using classical microbial techniques and modern molecular methodologies. May be repeated upon completion of BIOL 4430L. PREREQ: BIOL 2235 and BIOL 2235L, and completion of 90 credits. PRE-or-COREQ: BIOL 4430L. F

BIOL 4431L General Entomology Lab 1 credit. Field trips. PREREQ: BIOL 1101 and BIOL 1102. COREQ: BIOL 4431. AF

BIOL 4432 Biochemistry 3 credits.
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 credits.
Comparative physiology of microorganisms, including structure/function, metabolic diversity, enzymatic mechanisms of microbial metabolism, and physiology of extreme organisms. May be repeated upon completion of BIOL 4433L. PREREQ: BIOL 2235L and BIOL 2235, and completion of 90 credits. PRE-or-COREQ: BIOL 4433L. F

BIOL 4434 Microbial Diversity Lab 1 credit. Laboratory exercises in comparative physiology of microorganisms. COREQ: BIOL 4434. F

BIOL 4435 Vertebrate Paleontology 4 credits.
Phylogenetic history of the vertebrates outlined in the light of morphology, classification, evolution, paleoecology, and the significance of fossils. Field trips. Equivalent to GEO 4435. PREREQ: GEO 4431 or (BIOL 3304 and BIOL 3304L) or equivalent. F

BIOL 4437 Experimental Biochemistry 1 credit. Laboratory course including both qualitative and quantitative experiments. Equivalent to CHEM 4438. PREREQ-COREQ: BIOL 4432 or BIOL/CHEM 4445. F, S

BIOL 4438 Ornithology 4 credits.
Study of the origin, evolution, structure, habits, adaptations, distribution, and classification of birds. Field trips. PREREQ: BIOL 1101 and BIOL 1102. S

BIOL 4439 Principles of Taphonomy 3 credits.
Effects of processes which modify organisms between death and the time the usually fossilized remains are studied. Emphasis on vertebrates. Cross-listed as ANTH 4439, GEOI 4439. PRE-REQ: permission of instructor. AS
BIOL 4460 Neuroscience 4 credits. 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 credits. Detailed and critical consideration of selected genetic topics with emphasis on recent advances. PREREQ: BIOL 3358. S

BIOL 4462 Freshwater Ecology 3 credits. Study of the interaction of physical and biotic factors in aquatic ecosystems. Lectures, Laboratories, Field trips. PREREQ: BIOL 2209. COREQ: BIOL 4462L. AF

BIOL 4462L Freshwater Ecology Lab 1 credit. AF

BIOL 4463 Human Pathophysiology 4 credits. The study of basic process underlying diseases, with an emphasis on correlating anatomical, functional, and biochemical alterations with clinical manifestations. Laboratory required. PREREQ: BIOL 3301 and BIOL 3302, or permission of instructor. COREQ: BIOL 4463L. F, W

BIOL 4463L Human Pathophysiology Lab 0 credit. F, W

BIOL 4464 Lectures in Human Physiology 4 credits. 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 credits. 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 4466L Medical Mycology Lab 0 credit. F

BIOL 4469 Special Topics in Microbiology 1-4 credits. 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 credits. 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 credits. Introduction to optical microscopy with an emphasis on optical image formation, documentation, interpretation and digital image analysis relevant to experimental applications in the biological sciences. Lecture and laboratory with independent research component. AS(E)

BIOL 4472 Clinical Physiology 2 credits. A survey of selected organ systems with clinical correlations of pathophysiological states. PREREQ: BIOL 4464. S

BIOL 4473 Applied and Environmental Microbiology 3 credits. Concepts in applied microbiology and microbial ecology, including fermentation, biotechnology, and ecophysiology. May be repeated upon completion of

BIOL 4473L. PREREQ: BIOL 2235, 2235L. PREREQ-COREQ: BIOL 4473L. AS

BIOL 4473L Applied Environmental Microbiology Lab 1 credit. Laboratory exercises in applied and environmental microbiology. COREQ: BIOL 4473. AS

BIOL 4474 Human Anatomy (Occupational Therapy/Physical Therapy) 5 credits. Applied regional anatomy emphasizing the development, histology and gross anatomy of the musculoskeletal, peripheral nervous, and cardiovascular systems. Includes laboratory with cadaver dissection. PREREQ: Permission of instructor. COREQ: BIOL 4474L. F

BIOL 4474L Human Anatomy (OT/PT) Lab 0 credit. F

BIOL 4475 General Virology 3 credits. 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 credit. Designed to acquaint students with the techniques and experimental principles used in the study of bacterial viruses. PRE-OR-COREQ: BIOL 4475. S

BIOL 4478 Animal Virology Laboratory 1 credit. Introduces tissue culture methods and other techniques employed in the study of animal viruses. PRE-OR-COREQ: BIOL 4475. S

BIOL 4479 Survey of Electron Microscopy 2 credits. Introduction to the potentialities, theory, techniques, and limitations of electron microscopy. The field will be surveyed as a whole, but primary emphasis will be on biological applications. PREREQ: permission of instructor. F

BIOL 4480 Mentored Research Alliance 2 credits. 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 credits. Individual problems will be assigned to students on the basis of interest and previous preparation. May be repeated. PREREQ: A minimum of two courses in biological sciences and permission of the instructor. F

BIOL 4482 Independent Problems 1-4 credits. Individual problems will be assigned to students on the basis of interest and previous preparation. May be repeated. PREREQ: A minimum of two courses in biological sciences and permission of the instructor. S

BIOL 4483 Human Systemic Physiology 5 credits. 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 credit. F

BIOL 4488 Advanced Radiobiology 3 credits. An advanced-level class covering aspects of molecular radiobiology, teratogenesis, oncogenesis, and acute radiation illnesses. It also considers nonstochastic radiation effects and the epidemiology of radiation exposures. Equivalent to HPHY 4488. PREREQ: permission of instructor. AF

BIOL 4489 Field Ecology 4 credits. An intensive field study of at least one biogeographical region to increase student’s knowledge of, and skill with, field sampling techniques, field-study design, data collection and analysis, and report preparation. Lectures, laboratories. PREREQ: BIOL 2209 and a course in statistics. S

BIOL 4491 Seminar 1 credit. Review of current research and literature in the general fields of biological science. PREREQ: Senior standing or permission of department. F, S, Su

BIOL 4492 Seminar 1 credit. Review of current research and literature in the general fields of biological science. PREREQ: Senior standing or permission of department. F, S, Su

BIOL 4493 Senior Thesis 1-4 credits. 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. PREREQ: Senior status; permission of department. F, S

BIOL 4494 Seminar in Microbiology 1 credit. 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 credits. Behavior of animals and the evolutionary mechanisms which dictate behavioral patterns. PREREQ: Upper division or graduate status. AF

BIOL 4496 Ecology Senior Seminar 1 credit. Review of current research in ecology and related areas. Attendance at departmental seminars and written summaries of the seminars required. PREREQ: Senior status and Ecology major or permission of department. F, S

BIOL 4497 Workshop 1-2 credits. 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 credit. Review of current research and literature in the field of biochemistry. Equivalent to CHEM 4498. PREREQ: senior standing or permission of department. F, S
Department of Chemistry
Chair and Professor: De Jesus (Organic)
Professors: Castle (Organic), Holman (Organic), Kalivas (Analytical), Pak (Organic), Rodriguez (Physical), J. Rosentretre (Analytical)
Associate Professors: Davis (Organic), Evilia (Biochemistry), Goss (Physical), Holland (Inorganic)
Assistant Professor: Bennett (Inorganic)
Lecturer: Quarder
Associate Lecturers: Omar, R. Rosentretre
Affiliate Faculty: Pattie
Emeriti: Braun, Faler, Ronald, Strommen, 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 advance 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 four degree programs, three 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 and the Department of Biomedical and Pharmaceutical 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.

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 have 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
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 Academic Information section of this Catalog).

First Year
CHEM 1111, 1111L General Chemistry I, and Lab 5 cr
CHEM 1112, 1112L General Chemistry II, and Lab 4 cr
MATH 1170 Calculus I 4 cr
MATH 1160 Applied Calculus 3 cr

Second Year
CHEM 2211 Inorganic Chemistry I 3 cr
CHEM 2213 Inorganic Chemistry I Lab 1 cr
CHEM 2232 Quantitative Analysis 2 cr
CHEM 2234 Quantitative Analysis Lab 2 cr
CHEM 3301 Organic Chemistry I 3 cr
CHEM 3302 Organic Chemistry II 3 cr
CHEM 3303 Organic Chemistry Lab I 1 cr
CHEM 3304 Organic Chemistry Lab II 1 cr
PHYS 1111,1112, 1113, 1114 General Physics I and II and Labs 8 cr
PHYS 2211-2212, 2213,2214 Engineering Physics 10 cr

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 also is 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
Core Requirements*

Students pursuing a Bachelor of Science degree must satisfy 8 of the 9 General Education Objectives (a minimum of 36 credits—see the Academic Information section of this Catalog). Students must also satisfy the core requirements listed below, the requirements for one of the biochemistry tracks, and 9 credits of elective courses in Biology, Chemistry, and Biomedical and Pharmaceutical Sciences. All graduates of this program will earn a B.S. in Biochemistry, irrespective of which track is selected.

**Concentration 3: Physiological Biochemistry**

- CHEM 3302 and 3302L; or 3304 and 3304L
- **Concentration 1: Biological Chemistry**
  - CHEM 2211, 2213 Inorganic Chemistry, and Lab 4 cr
  - CHEM 3331, 3334 Instrumental Analysis, and Lab 4 cr
  - CHEM 4492 Seminar 1 cr

**Concentration 2: Biochemistry and Molecular Biology**

- BIOL 1101, 1101L Biology I, and Lab 4 cr
- BIOL 1102, 1102L Biology II, and Lab 4 cr
- BIOL 2235, 2235L General Microbiology 4 cr
- BIOL 3358 Genetics 3 cr
- BIOL 4457/CHEM 4438 Experimental Biochemistry 1 cr
- BIOL 4444, 4444L Cell and Molecular Biology, and Lab 5 cr
- BIOL/CHEM 4445 Biochemistry I 3 cr
- BIOL/CHEM 4447 Biochemistry II 3 cr
- BIOL/CHEM 4498 Seminar in Biochemistry 1 cr
- BIOL 1111, 1111L General Chemistry I, and Lab 5 cr
- BIOL 1112, 1112L General Chemistry II, and Lab 4 cr
- BIOL 2232, 2234 Quantitative Analysis, and Lab 4 cr
- BIOL 3301, 3303 Organic Chemistry I, and Lab 4 cr
- BIOL 3302, 3304 Organic Chemistry II, and Lab 4 cr
- BIOL 3341** Topics in Physical Chemistry I 3 cr
- BIOL 3342** Topics in Physical Chemistry II 3 cr
- MATH 1170 Calculus I 4 cr
- MATH 1175 Calculus II 4 cr
- PHYS 1111, 1113** General Physics I, and Lab 4 cr
- PHYS 1112, 1114** General Physics II, and Lab 4 cr
- Subtotal: 71 cr

General Education Requirements

24 cr

TOTAL: 95 cr

*Students must pass core courses with a grade of C or better.
**May elect to take CHEM 3351 and 3352 instead of CHEM 3341 and 3342.
***PHYS 2211, 2212, 2213, 2214 may be taken to fulfill the Physics requirement in the core curriculum.

Electives

Students must take a minimum of 9 elective credits from the list below, with at least 3 credits in Biological Sciences (BIOL), 3 credits in Chemistry (CHEM), and 3 credits in Biomedical and Pharmaceutical Sciences (PSCT). Advanced or experimental courses are acceptable. These courses satisfy the electives requirement only if they are not required for a chosen Biochemistry concentration.

**Electives**

- BIOL 3301 Introduction to Pharmacology 3 cr
- BIOL 4492 Seminar 1 cr

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 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 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 1175 as early as feasible.

First Year

- CHEM 1111, 1111L General Chemistry I, and Lab 5 cr
- CHEM 1112, 1112L General Chemistry II, and Lab 4 cr
- MATH 1170 Calculus I 4 cr
- MATH 1175 Calculus II 4 cr

Second Year

- CHEM 2211, 2213 Inorganic Chemistry, and Lab 4 cr
- CHEM 2331 and 3342 3 cr
- CHEM 3311 and/or 3312 Introduction to Research (max) 2 cr
- CHEM 3331, 3334 Instrumental Analysis, and Lab 4 cr
- CHEM 3356, 3366 Synthetic Methods, and Lab 4 cr
- CHEM 4407* Inorganic Chemistry II 2 cr
- CHEM 4433, 4437 Environmental Chemistry, and Lab 3 cr
- CHEM 4453** Modern Experimental Physical Chemistry 3 cr
- CHEM 4481 and/or 4482 Independent Problems (max 2 credits) 2 cr
- CHEM 4488 Advanced Radiochemistry 3 cr

Courses in Chemistry

- CHEM 2211, 2213 Inorganic Chemistry, and Lab 4 cr
- CHEM 2331 and/or 3312 Introduction to Research (max) 2 cr
- CHEM 3311, 3312 Instrumental Analysis, and Lab 4 cr
- CHEM 3331, 3334 Instrumental Analysis, and Lab 4 cr
- CHEM 3356, 3366 Synthetic Methods, and Lab 4 cr
- CHEM 4407* Inorganic Chemistry II 2 cr
- CHEM 4433, 4437 Environmental Chemistry, and Lab 3 cr
- CHEM 4453** Modern Experimental Physical Chemistry** 3 cr
- CHEM 4481 and/or 4482 Independent Problems (max 2 credits) 2 cr

Courses in Biomedical and Pharmaceutical Sciences

- PSCI 2205 Drugs in Society 2 cr
- PSCI 3301 Introduction to Pharmacology 3 cr
- PSCI 3306 Drug Discovery 3 cr
- PSCI 3335 Introduction to Methods in Pharmaceutical Sciences 2 cr
- PSCI 3368 Introduction to Toxicology 3 cr
- PSCI 4402 Immunopharmacology 2 cr
- PSCI 4403 Infections Diseases and Natural Products 3 cr

Fourth Year

- BIOL 4432 Biochemistry 3 cr
- OR
- BIOL/CHEM 4445, 4447 Pharmacogenomics 2 cr
- CHEM 3331 Instrumental Analysis 2 cr
- CHEM 3331-3352 Physical Chemistry 6 cr

PSCI 4407 Pharmacogenomics 2 cr
- PSCI 4408 Medicinal Chemistry 3 cr
- PSCI 4431 Cancer Biology 3 cr
- PSCI 4434 Pharmacokinetics 3 cr
- PSCI 4440 Fundamentals of Nanoscience 3 cr

*Prerequisites include CHEM 2211, 2211L, 3351, and 3352.

**Prerequisites include CHEM 3334, 3351, and 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 Lab 5 cr
CHEM 1112, 1112L General Chemistry II, and Lab 4 cr
CHEM 2211 Inorganic Chemistry I 3 cr
CHEM 2213 Inorganic Chemistry I Lab 1 cr
CHEM 2232 Quantitative Analysis 2 cr
CHEM 2234 Quantitative Analysis Laboratory 2 cr
CHEM 3301-3302 Organic Chemistry I and II 6 cr
CHEM 3303-3304 Organic Chemistry Laboratory I and II 2 cr
MATH 1170 Calculus I 4 cr
MATH 1175 Calculus II 4 cr
PHYS 2212-2212 Engineering Physics 8 cr
PHYS 2213-2214 Engineering Physics Laboratory 2 cr

Application for admission must be made to the Chemistry Department.

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 (Junior year)

Fall/Spring
CHEM 3331* Instrumental Analysis 2 cr
CHEM 3334* Instrumental Analysis Laboratory 2 cr
CHEM 3351* Physical Chemistry 3 cr
CHEM 3352* Physical Chemistry 3 cr
MATH 3360 Differential Equations 3 cr
Electives 11 cr
TOTAL: 24 cr

* Must be completed by the end of the junior year.

Summer
CHEM 4485 Senior Research 6 cr

Second Year (Senior year)

Fall/Spring
BIOL 4432 Biochemistry 3 cr
CHEM 4445 Biochemistry I, II 6 cr
CHEM 3365 Synthesis Methods 2 cr
CHEM 3366 Synthesis Methods Lab 2 cr
CHEM 4407 Inorganic Chemistry II 2 cr
CHEM 4453 Modern Experimental 2 cr
CHEM 4485 Senior Research 2 cr
CHEM 4491 Seminar 1 cr
CHEM 6609 Advanced Inorganic Chemistry 3 cr
CHEM 6655 Advanced Physical Chemistry 3 cr
Electives 8 cr
TOTAL: 28 or 31 cr

Summer
CHEM 6635 Master’s Research 6 cr

Third Year (Graduate standing)

Fall/Spring
CHEM 6630 Advanced Analytical Chemistry 3 cr
CHEM 6671 Advanced Organic Chemistry 3 cr
CHEM 6601 Seminar 2 cr
CHEM 6635 Master’s Research 4 cr
Electives 13 cr
TOTAL: 25 cr

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, 1111L General Chemistry I, and Lab 5 cr
CHEM 1112, 1112L General Chemistry II, and Lab 4 cr
CHEM 2211 Inorganic Chemistry I 3 cr
CHEM 2213 Inorganic Chemistry I Lab 1 cr
CHEM 2232 Quantitative Analysis 2 cr
CHEM 2234 Quantitative Analysis Lab 2 cr
CHEM 3301 Organic Chemistry 3 cr
CHEM 3302 Organic Chemistry II 3 cr
CHEM 3303 Organic Chemistry Lab I 1 cr
CHEM 3304 Organic Chemistry Lab II 1 cr
Approved upper-division electives in chemistry (excluding CHEM 4400, CHEM 4481-4482, and CHEM 4491) 4 cr
TOTAL: 29 cr

Chemistry Courses

All Chemistry courses require a grade of at least C- in all prerequisite chemistry courses.

CHEM 1100 Architecture of Matter 4 credits.
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 credits.
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. Partially satisfies Objective 5 of the General Education Requirements. PREREQ: MATH 1108 or equivalent. F, S

CHEM 1102 Introduction to Organic and Biochemistry 3 credits.
Descriptive organic and biochemistry with emphasis on organic compounds of biological importance. May not be used as a prerequisite to other courses in chemistry. Partially satisfies Objective 5 of the General Education Requirements. PREREQ: CHEM 1101 or CHEM 1111 and CHEM 1111L. COREQ: CHEM 1103. F, S

CHEM 1103 Introduction to General, Organic and Biochemistry Laboratory 1 credit.
Laboratory course introducing fundamental measurement techniques, methods and materials used in general, organic and biochemistry. Partially satisfies Objective 5 of the General Education Requirements. PREREQ: CHEM 1101 or CHEM 1111 and CHEM 1111L. COREQ: CHEM 1102. F, S

CHEM 1111 General Chemistry I 4 credits.
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. Partially satisfies Objective 5 of the General Education Requirements. PREREQ: MATH 1143 or MATH 1147 or equivalent. F, S

CHEM 1111L General Chemistry I Lab 1 credit. Laboratory course to accompany General Chemistry I. Partially satisfies Objective 5 of the General Education Requirements. PRE-or-COREQ: CHEM 1111. F, S

CHEM 1112 General Chemistry II 3 credits.
Introduction to kinetics, equilibrium, electrochemistry, and nuclear chemistry. May be repeated upon completion of CHEM 1112L. Partially satisfies Objective 5 of the General Education Requirements. PREREQ: CHEM 1111 and CHEM 1111L or equivalent and MATH 1143 or MATH 1147 or equivalent. F, S
CHEM 1112L. General Chemistry II Lab 1 credit. Laboratory course to accompany General Chemistry II. Partially satisfies Objective 5 of the General Education Requirements. PREREQ: COREQ: CHEM 1112. F, S

CHEM 2211. Inorganic Chemistry I 3 credits. 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. Inorganic Chemistry I Laboratory 1 credit. Qualitative and quantitative inorganic chemistry, including: precipitation, acid/base and reduction/oxidation reactions in aqueous media, preparation and isolation of inorganic compounds, characterization techniques for inorganic compounds (e.g. magnetic susceptibility measurements, electrochemistry, UV-vis). COREQ: CHEM 2211 or permission of instructor. F

CHEM 2232. Quantitative Analysis 2 credits. 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. S

CHEM 2234. Quantitative Analysis Laboratory 2 credits. 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 credits. 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. F

CHEM 3302. Organic Chemistry II 3 credits. A continuation of CHEM 301. The further study of the preparation, reactions, properties, reaction mechanisms and spectroscopy of organic compounds. PREREQ: CHEM 3301 or permission of instructor. S

CHEM 3303. Organic Chemistry Laboratory I 1 credit. 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 credit. 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 3311-3312. Introduction to Research 1-2 credits each. Directed library and laboratory research. Courses may be repeated for up to 6 credits. F, S

CHEM 3331. Instrumental Analysis 2 credits. 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 credits. Laboratory course giving experience in fundamental operations of modern instrumental methods of analysis. PREREQ: CHEM 2234 and CHEM 3331 or permission of instructor. S

CHEM 3341. Topics in Physical Chemistry 3 credits. Topics in physical chemistry with application to biological systems are covered. 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 credits. Topics in physical chemistry with application to biological systems are covered. Molecular structure, thermodynamics of gases and solutions, reaction rates and mechanisms, basic quantum mechanics, and spectroscopic principles are covered in this two semester sequence. PREREQ: CHEM 3341, or permission of instructor. S

CHEM 3351. Physical Chemistry 3 credits. The fundamental principles of physical chemistry; thermodynamics, reaction kinetics, molecular structure, quantum theory, spectroscopy, and solution chemistry. PREREQ: CHEM 1112, CHEM 1112L, MATH 1175, and PHYS 2212, or permission of instructor. F

CHEM 3352. Physical Chemistry 3 credits. The fundamental principles of physical chemistry; thermodynamics, reaction kinetics, molecular structure, quantum theory, spectroscopy, and solution chemistry. PREREQ: CHEM 3351. S

CHEM 3365. Synthetic Methods 2 credits. Practical aspects of chemical synthesis: preparation, purification, and spectral interpretation for organic and inorganic molecules. PREREQ: CHEM 2211 and CHEM 2304. F

CHEM 3366. Synthetic Methods Laboratory 2 credits. Advanced laboratory methods for preparation of organic and inorganic molecules; synthetic techniques, air-sensitive methods, purification techniques, and characterization methods. PREREQ: CHEM 3365. S

CHEM 3391. Seminar 1 credit. A formal introduction to scientific presentations including a short student presentation on selected library or laboratory research. PREREQ: CHEM 3301, 3303 or permission of instructor. R1

CHEM 4400. Practicum in Physical Science 2 credits. Practical problems associated with equipping, setting up and operating laboratories in chemistry. PREREQ: permission of department Chair. D

CHEM 4407. Inorganic Chemistry II 2 credits. 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. F

CHEM 4433. Environmental Chemistry 2 credits. 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 credit. 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 credit. Laboratory course including both qualitative and quantitative experiments. Equivalent to BIOL 4447. PREREQ: CHEM 1101 and CHEM 3301. F

CHEM 4445. Biochemistry I 3 credits. Introduction to basic aspects of biochemical systems, including fundamental chemical and physical properties of biomolecules. Enzymology, including allosterism, metabolic regulation, bioenergetics, and carbohydrate metabolism. Equivalent to BIOL 4445. PREREQ: BIOL 1101 and CHEM 3301. F

CHEM 4445. Advanced Experimental Biochemistry 2 credits. Advanced laboratory projects designed to emphasize techniques of qualitative and quantitative biochemical analysis. Equivalent to BIOL 4448. PREREQ: BIOL 4437/4438. COREQ: BIOL 4447. S

CHEM 4453. Modern Experimental Physical Chemistry 2 credits. Magnetic, optical and electrical properties of materials, calorimetry, voltammetry, optical and laser spectroscopic techniques. PREREQ: CHEM 3334 and CHEM 3352. F

CHEM 4470. Biorganic Chemistry 3 credits. Overview of basic principles of organic mechanisms, an overview of biochemistry principles, fundamentals of proteins and protein synthesis, enzymes and enzyme reaction mechanisms including group transfer, hydrolysis, animations, phosphorylation, reductions and oxidation, mono- and di-oxygenation, substitutions, carbonylations, and decarboxylations, isomerizations and eliminations and addition reactions. PREREQ: CHEM 3302 and CHEM 4445 or BIOL 4445. OS

CHEM 4481. Independent Problems in Chemistry 1-4 credits. Directed library and laboratory research. Courses 4481 and 4482 may be repeated for up to 6 credits. PREREQ: CHEM 3352. F
CHEM 4482 Independent Problems in Chemistry 1-4 credits. Directed library and laboratory research. Courses 4481 and 4482 may be repeated for up to 6 credits. PREREQ: CHEM 3352. S

CHEM 4485 Senior Research 1-4 credits. 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 credit. 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. C0REQ: CHEM 4481, 4482, 4485, or permission of instructor. F, S

CHEM 4498 Seminar in Biochemistry 1 credit. Review of current research and literature in the field of biochemistry. Equivalent to BIOL 4498. PREREQ: senior standing or permission of department. F, S

Computer Science

Program Director and Professor: Schou Chair and Professor: Beard Professor: Parker Associate Professor: Chiu

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 in 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 2282, CS majors must complete a COMPUTER SCIENCE PROGRAM OF STUDY form, available on the Computer Science web site 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 2282, 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 a Graduation Specialist in the Office of the Registrar to insure that all general education requirements have been completed. Students then should fill in a COMPUTER SCIENCE GRADUATION CHECKLIST form, also available on the Computer Science web site, and meet with their advisor for approval. The student 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 must be passed with a grade of “C-” or higher.

In CS 2282 and subsequent 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 student work in a safe and secure environment and assist in their mastery of continually-evolving professional environments.

As part of the 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 for the Bachelor of Science degree. 120 credits are required to graduate.

Mathematics and Science Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MATH 1170</td>
<td>Calculus I</td>
<td>4 cr</td>
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<tr>
<td>MATH 1175</td>
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<td>4 cr</td>
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<td>MATH 2240</td>
<td>Linear Algebra</td>
<td>3 cr</td>
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<td>PHYS 2211</td>
<td>Engineering Physics</td>
<td>4 cr</td>
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<td>PHYS 2213</td>
<td>Engineering Physics I Lab</td>
<td>1 cr</td>
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<tr>
<td>CHEM 1111</td>
<td>General Chemistry I</td>
<td>4 cr</td>
</tr>
</tbody>
</table>

Choose one course from each pair:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1147**</td>
<td>Precalculus OR</td>
<td>5 cr</td>
</tr>
<tr>
<td>MATH 1144</td>
<td>Trigonometry</td>
<td>2 cr</td>
</tr>
<tr>
<td>CS/MATH 1187</td>
<td>Applied Discrete Structures OR</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 2287</td>
<td>Foundations of Mathematics</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Choose one set from the following two sets:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 3350</td>
<td>Statistical Methods</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 3352</td>
<td>Introduction to Probability</td>
<td>3 cr</td>
</tr>
<tr>
<td>MGT 2216**</td>
<td>Business Statistics</td>
<td>3 cr</td>
</tr>
<tr>
<td>MGT 2217</td>
<td>Advanced Business Statistics</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Required Computer Science and Related Courses

To allow students to have the broadest possible learning experience, students are encouraged to select elective courses. These range from an increased emphasis in Mathematics to a specialization in Computer Security/Information Assurance. Students may also propose specialized courses from other disciplines on a case by case basis.

<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</td>
<td>3 cr</td>
</tr>
<tr>
<td>CS 1182</td>
<td>Computer Science and Programming II</td>
<td>3 cr</td>
</tr>
<tr>
<td>CS 2275</td>
<td>Computer Organization and Assembly</td>
<td>3 cr</td>
</tr>
<tr>
<td>CS 2282</td>
<td>Advanced Programming</td>
<td>3 cr</td>
</tr>
<tr>
<td>CS 3385</td>
<td>Data Structures and Algorithms</td>
<td>3 cr</td>
</tr>
<tr>
<td>CS 4477</td>
<td>Operating Systems</td>
<td>3 cr</td>
</tr>
<tr>
<td>CS 4481</td>
<td>Programming Language, Theory, and Compilers</td>
<td>3 cr</td>
</tr>
<tr>
<td>CIS 4411</td>
<td>Intermediate Information Assurance</td>
<td>3 cr</td>
</tr>
<tr>
<td>CIS 4485</td>
<td>Network and Communication Systems</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Choose 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 cr</td>
</tr>
<tr>
<td>CIS 4403</td>
<td>Systems Analysis and Logical Design</td>
<td>3 cr</td>
</tr>
<tr>
<td>CS 4451</td>
<td>Database Theory, Design, and Programming</td>
<td>3 cr</td>
</tr>
<tr>
<td>CIS 4407</td>
<td>Database Design and Implementation</td>
<td>3 cr</td>
</tr>
</tbody>
</table>
Minor in Computer Science

Some students in other disciplines may find increased knowledge about computer science to be useful. The recommended program of study is as follows:

Required Courses:
- MATH 1170 Calculus I 4 cr
- MATH 1160 Business Calculus 3 cr
- CS 1181 Computer Science and Programming I 3 cr
- CS 1182 Computer Science and Programming II 3 cr
- CS 2275 Computer Organization and Assembly 3 cr
- CS 2282 Advanced Computer Programming 3 cr

Plus 6 credits from the list of approved electives shown above for the Computer Science Major.

Computer Science Courses

CS 1181 Computer Science and Programming I 3 credits. Problem solving methods and algorithm development with an emphasis on programming style. Satisfies Objective 7 of the General Education Requirements. PRE-req: MATH 1143 or MATH 1147. F, S

CS 1182 Computer Science and Programming II 3 credits. Object oriented programming in the context of design, sorting and searching, analysis of algorithms, recursion, linked lists, class diagrams and other data structures and algorithms. PREREQ: CS 1181. S

CS 1187 Applied Discrete Structures 3 credits. 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 credits. 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 1181. S

CS 2275 Computer Organization and Assembly 3 credits. 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 1181. S

CS 2282 Advanced Programming 3 credits. Advanced object oriented programming and software design and development in a modern object-oriented language not previously used. Event driven programming. Elementary threading. UML. Includes a significant software project. PREREQ: CS 1182. F

CS 3321 Software Engineering 3 credits. 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, project and team management. PREREQ: CS 2282. D

CS 3331 Web Programming 3 credits. HTML, server- and client-side programming, web-based database programming. PREREQ: CS 2282. D

CS 3342 Software Graphics 3 credits. 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 2282 and MATH 2240. D

CS 3344 Artificial Intelligence 3 credits. 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 credits. The design, construction, and analysis of data structures. Abstract data types, lists, stacks, queues, trees, and graphs. Sorting, searching, hashing. Theory. Includes significant coding projects. Uses Linux. PREREQ: CS 2282, CS 2275 and (CS/MATH 1187 or MATH 2287 or MATH 2240). S

CS 3386 Data Structures and Algorithms II 3 credits. Continuation of CS 3385. PREREQ: CS 3385. D

CS 4420 Computer Security and Cryptography 3 credits. 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 credits. 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 credits. Image/audio acquisition, quantization, spatial and spectral filters, sharpening, smoothing, restoration, compression, segmentation, Fourier and Wavelet transforms. PREREQ: CS/ MATH 1187, MATH 3332, and MATH 3360. D

CS 4445 Data Compression 3 credits. 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 credits. 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 credits. Design of historical and contemporary programming languages, concentrating 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 credits. 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 4475 Advanced Computer Architecture 3 credits. Continuation of CS 2275, Computer Organization and Assembly. PREREQ: CS 2275 and EE 2274. D

CS 4477 Operating Systems 3 credits. Processes description and control, threads, concurrency, memory management scheduling, I/O and files, distributed systems, security, networking. Includes Team implementation of a significant portion of an operating system. Uses a different operating system. PREREQ: CS 2275 and CS 2282. S

CS 4480 Theory of Computation 3 credits. Finite representations of languages, deterministic and nondeterministic finite automata, context free languages, regular languages,
Fundamentals of Engineering (FE) Exam

Engineering students are encouraged to take the Fundamentals of Engineering (FE) exam (administered nationally, twice a year) 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. Those who successfully pass the FE exam while enrolled at Idaho State University will have that fact noted on their transcript.

Student Information

Idaho State University engineering and computer science 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 or computer science program is assigned a faculty advisor to guarantee an appropriate plan of study and to ensure continuity throughout the program. Each student completes general education and engineering core courses, which account for more than five semesters. They devote their last three semesters to more specialized, design-oriented courses. During the last two or three semesters, each student completes a senior design project.

The School recommends that students entering an engineering program have: (a) adequate algebra and trigonometry to enter the calculus sequence and (b) some familiarity with computer language and computer fundamentals. A student deficient in these areas may be delayed in entering their major. Preparatory mathematics and computer courses are available at Idaho State University.

School of Engineering Academic Rules

1. A student who fails the same engineering course (any course offered by the School of Engineering) two or more times may be dismissed from the School contingent upon review by the appropriate School committee.

2. Students who have been dismissed from the School may not enroll in engineering courses prior to readmission.

3. A student who enrolls in an engineering class while petitioning for a waiver of applicable prerequisites must secure the waiver by the second week of classes or be dropped from the course in question.

4. Transfer credits, including correspondence and video-tape courses, are subject to existing School articulation and/or transfer credit review criteria. The School recommends that students who intend to transfer a course to Idaho State University obtain prior approval for the transfer. Any transfer course must be completed within a single academic term. Evaluation of transfer credits must be completed before a student can matriculate or rematriculate into the School.

5. 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.

6. Every School of Engineering student must meet with a College faculty member from her/his discipline for academic advising prior to registration each semester. Students will not be permitted to register for engineering classes without an advisor approved schedule. A student who pursues a double major must be advised each semester by a faculty member from each of the two major programs.

Under the Graduate School, the School of Engineering administers programs leading to the Master of Science in Engineering and the Ph.D. The M.S. program comprises majors in Civil Engineering, Environmental Engineering, Environmental Science and Management, Measurement and Control Engineering, Mechanical Engineering, and Nuclear Science and Engineering. The Ph.D. is available in Engineering and Applied Science and in Nuclear Science and Engineering. For more information, see the Graduate Catalog. Additional graduate programs are available through interdisciplinary majors with mathematics and the physical sciences.

General Education Requirements

Students earning the Bachelor of Science must complete 8 of the 9 General Education Objectives (a minimum of 36 credits). See the Academic Information section of the Catalog.
## Engineering Courses

**ENGR 1167 Engineering and Scientific Programming** 1 credit. 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. PRE-OR-COREQ: ME 1165. S

**ENGR 2223 Materials and Measurements** 3 credits. 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 credit. Laboratory measurement of material properties. PRE-OR-COREQ: ENGR 2223. F, S

**ENGR 3364 Engineering Numerical Techniques** 3 credits. Numerical methods for solving linear and nonlinear systems of equations, data fitting and smoothing, numerical integration and differentiation, initial and boundary value problems, and optimization. Stresses engineering applications and programming projects. PREREQ: ME 1165 or CS 1181; MATH 2240, MATH 2275, and MATH 3360. F

**ENGR 3392 Cooperative Education** 1-3 credits. 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 credits. 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 4478 Probabilistic Risk Assessment** 3 credits. 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 credits. 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 and CS 4482. PREREQ: Permission of instructor. D

**ENGR 4492 Human Factors in Engineering** 3 credits. 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

## Department of Civil and Environmental Engineering

Chair and Professor: Ebrahimpour Associate Chair and Professor: Sato Professor: Leung Assistant Professors: Savage, Sorensen Senior Lecturer: Mahar Visiting Assistant Professor: Gale Adjunct Faculty: Baird, Forbord, Gossett, Vahsholtz

### Accreditation

The Bachelor of Science (BS) 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 General Education Requirements listed earlier (a minimum of 36 credits—see the Academic Information section of this Catalog), the program of study for the Bachelor of Science in Civil Engineering degree totals 130-136 credits as follows:

### Mathematics and Engineering Core Courses (38 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE 1105</td>
<td>Engineering Graphics</td>
<td>2 cr</td>
</tr>
<tr>
<td>CE 1120</td>
<td>Introduction to Engineering</td>
<td>2 cr</td>
</tr>
<tr>
<td>CE/ME 2210</td>
<td>Engineering Statics</td>
<td>3 cr</td>
</tr>
<tr>
<td>CE 3361</td>
<td>Engineering Economics and Management</td>
<td>3 cr</td>
</tr>
<tr>
<td>EE 2240</td>
<td>Introduction to Electrical Circuits</td>
<td>3 cr</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ME 3307</td>
<td>Thermodynamics</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 1175</td>
<td>Calculus II</td>
<td>4 cr</td>
</tr>
<tr>
<td>MATH 2240</td>
<td>Linear Algebra</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 3360</td>
<td>Differential Equations</td>
<td>3 cr</td>
</tr>
<tr>
<td>ME 1165</td>
<td>Structured Programming</td>
<td>2 cr</td>
</tr>
<tr>
<td>ME 2220</td>
<td>Engineering Dynamics</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGR 2223</td>
<td>Materials and Measurements</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGR 2224</td>
<td>Lab</td>
<td>1 cr</td>
</tr>
<tr>
<td>CE 4496A</td>
<td>Project Design I</td>
<td>3 cr</td>
</tr>
<tr>
<td>CE 4496B</td>
<td>Project Design II</td>
<td>3 cr</td>
</tr>
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</table>

## Other Engineering and Mathematics Courses (36 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 3352</td>
<td>Introduction to Probability</td>
<td>3 cr</td>
</tr>
<tr>
<td>CE 3301</td>
<td>Surveying</td>
<td>3 cr</td>
</tr>
<tr>
<td>CE 3332</td>
<td>Basic Geotechnics</td>
<td>3 cr</td>
</tr>
<tr>
<td>CE/ME 3341</td>
<td>Fluid Mechanics</td>
<td>3 cr</td>
</tr>
<tr>
<td>CE/ME 3350</td>
<td>Mechanics of Materials</td>
<td>3 cr</td>
</tr>
<tr>
<td>CE 3351</td>
<td>Engineering Hydrology</td>
<td>3 cr</td>
</tr>
<tr>
<td>CE 3362</td>
<td>Structural Analysis</td>
<td>4 cr</td>
</tr>
<tr>
<td>CE 4434</td>
<td>Geotechnical Design</td>
<td>3 cr</td>
</tr>
<tr>
<td>CE 4435</td>
<td>Hydraulic Design</td>
<td>3 cr</td>
</tr>
<tr>
<td>CE 4436</td>
<td>Transportation Engineering</td>
<td>3 cr</td>
</tr>
<tr>
<td>CE 4437</td>
<td>Geotechnical Engineering Laboratory</td>
<td>1 cr</td>
</tr>
<tr>
<td>CE 4462</td>
<td>Design of Steel Structures</td>
<td>3 cr</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CE 4464</td>
<td>Design of Concrete Structures</td>
<td>3 cr</td>
</tr>
<tr>
<td>CE 4467</td>
<td>Structural Engineering Laboratory</td>
<td>1 cr</td>
</tr>
</tbody>
</table>

## Additional Basic Science Course(s) (3 or 4 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 1101</td>
<td>Physical Geology</td>
<td>3 cr</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOL 1100,1100L</td>
<td>Concepts Biology: Human Concerns, and Lab</td>
<td>4 cr</td>
</tr>
</tbody>
</table>

## Additional Requirements (15 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
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</tr>
</thead>
<tbody>
<tr>
<td>ENVE 4410</td>
<td>Water and Wastewater Quality</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENVE 4410</td>
<td>Introduction to Environmental Engineering</td>
<td>3 cr</td>
</tr>
</tbody>
</table>
| CE electives* |                                  | 9 cr    | * List of approved courses is available from the School of Engineering office.

## 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 cr</td>
</tr>
<tr>
<td>CE/GEOL 4455</td>
<td>Geologic Data Methods</td>
<td>3 cr</td>
</tr>
<tr>
<td>CE/GEOL 4475</td>
<td>Essentials of Geomechanics</td>
<td>3 cr</td>
</tr>
<tr>
<td>CE/GEOL 4476</td>
<td>Engineering Geology Project</td>
<td>1 cr</td>
</tr>
<tr>
<td>CE/4480GEOL4483Earthquake Engineering</td>
<td>3 cr</td>
<td></td>
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</tbody>
</table>

## Civil Engineering Courses

<table>
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<td>Engineering Economics and Management</td>
<td>3 cr</td>
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<td>EE 2240</td>
<td>Introduction to Electrical Circuits</td>
<td>3 cr</td>
</tr>
<tr>
<td>OR</td>
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<td></td>
</tr>
</tbody>
</table>
CE 2210 Engineering Statics 3 credits. Concepts of force vectors and equilibrium with emphasis on free body diagrams. Trusses, beams, frames, centroids, fluid statics, and friction. Equivalent to ME 2210. Pre-or-Coreq: CE 1105 or ME 1105; PHYS 2211, and MATH 1175. F, S

CE 3301 Surveying 3 credits. Fundamental principles of surveying. Electronic and conventional angle and distance measurement, leveling, traversing, GPS, surveying computations, mapping. Application to engineering, geology and architecture. Prereq: Math 1147 or equivalent. F, D

CE 3332 Basic Geotechnics 3 credits. 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: Engr 2224. S

CE 3341 Fluid Mechanics 3 credits. 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 credits. Theories of stresses and strains for ties, shafts, beams, columns and connections. Determination of deflections and the investigation of indeterminate members. An introduction to design. Equivalent to ME 3350. Prereq: CE 2210 or ME 2210. F, S

CE 3351 Engineering Hydrology 3 credits. Quantitative descriptions of hydrologic processes and dynamics for the understanding and prediction of precipitation, storm water runoff, groundwater flow, flood routing, water quality, and ground water and detention and retention systems. Pre-or-Coreq: CME/ME 3341. S

CE 3360 Engineering Economics 2 credits. 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: Junior standing in engineering. F, S

CE 3361 Engineering Economics and Management 3 credits. 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: Junior standing in engineering. F, S

CE 3362 Structural Analysis 4 credits. Analysis of statically determinate and indeterminate trusses, beams, and frames; effects of moving loads; matrix stiffness method; computer applications. Four lectures and one 1-hour problem session a week. Prereq: CE/ME 3350 and Math 2240. F

CE 4406 Green and Sustainable Engineering 3 credits. 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 credits. 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 flow. Computer applications will be used in the analysis of open channel systems. Restricted to Seniors. Prereq: CE 3351. D

CE 4425 Water Resources 3 credits. Overview of the general field of water resources engineering. Course topics covered in other courses such as CE 3351 - Engineering Hydrology, CEE 4435/5535 - Hydraulic Design and CEE 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 credits. An introduction to elasticity, plasticity, and energy foundations, stability, plates. Prereq: CEE/ME 3350 and Math 3360. F


CE 4436 Transportation Engineering 3 credits. Fundamentals of earthwork, route location, drainage, and pavement materials with application to geometric and pavement design of highways, streets and rural roads. Prereq: Engr 2224 and CE 3301. Pre-or-Coreq: CEE/ME 3341. F

CE 4437 Geotechnical Engineering Laboratory 1 credit. Field and laboratory work on site investigation, soil sampling, classification and testing. Evaluation of soil properties. Design of experiments. Prereq: CE 3332. F

CE 4454 Basic Engineering Geology 3 credits. Geology applied to civil engineering projects; rock engineering classification systems and geological parameters such as joint set orientation, ground behavior and underground construction. Preparation of baseline geotechnical reports. Equivalent to Geol 4454. Pre-or-Coreq: Geol 3314 or CE 3332. D

CE 4455 Geologic Data Methods 3 credits. Geotechnical investigations for civil works projects; geologic mapping for civil engineering purposes; development of engineering geologic profiles; core logging; preparation of Geotechnical Data Reports for civil works projects. Equivalent to Geol 4455. Prereq: CE/GEOL 4454. D

CE 4460 Project Management 3 credits. 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 credits. Design of steel members and connections with emphasis on the AISC specifications. Prereq: CE 3362. OS

CE 4464 Design of Concrete Structures 3 credits. Design of reinforced concrete beams, columns, and slabs. Introduction to pre-stressing. Prereq: CE 3362. ES

CE 4465 Design of Prestressed Concrete Structures 3 credits. 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 credits. 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 credit. 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 credits. 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 credits. 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 credit. Team projects studying actual problems in engineering geology. Cross-listed as Geol 4476. Prereq: Geol 4454 or GE 4454. D

CE 4480 Earthquake Engineering 3 credits. Topics include: mechanism and characterization of earthquakes; seismic risk analysis; site and structural response; applications from points of view of engineer and geologist. Equivalent to Geol 4483. Prereq: Geol 3313, CE 3332, or permission of instructor. D

CE 4481 Independent Problems 1-3 credits. 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 and CS 4482. Prereq: Permission of instructor. D

CE 4496A Project Design 1-3 credits. 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
Environmental Engineering Courses

ENVE 4404 Environmental Risk Assessment 3 credits. Quantitative and qualitative approaches to characterizing and controlling contaminant pathways. Risk assessment requirements and implications in superfund projects for engineers working on remediation. PREREQ: CE 4496A. S

ENVE 4408 Water and Waste Water Quality 3 credits. 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 Lab 1 credit. Fundamental analytical procedures for measurement of water and waste water quality. Introduction to materials and protocols associated with general environmental analytical techniques. PRE-or-COREQ: ENVE 4408. D

ENVE 4410 Introduction to Environmental Engineering 3 credits. 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 credits. 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

Department of Electrical Engineering

Chair and Professor: Mousavinezhad
Professors: Naidu, Staffle
Associate Professors: Chiu, Ellis, Kantabutra
Assistant Professor: Zydek
Adjunct Faculty: Hunter, Jensen, LeFevre, McJunkin, Pan, Renlund
Affiliate Faculty: Rieger, Suri

Engineering Specialist, Associate Lecturer: Hart

Bachelor of Science in Electrical Engineering

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:

(a) an ability to apply knowledge of mathematics, science, and engineering
(b) an ability to design and conduct experiments, as well as to analyze and interpret data
(c) 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
(d) an ability to function on multidisciplinary teams
(e) an ability to identify, formulate, and solve engineering problems
(f) an understanding of professional and ethical responsibility
(g) an ability to communicate effectively
(h) the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
(i) a recognition of the need for, and an ability to engage in life-long learning
(j) a knowledge of contemporary issues
(k) 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 have an overall GPA of 2.0 and have completed all the key courses listed below with a grade point average (GPA) for these courses of at least 2.0 with no grade lower than C-. Each student should submit an application form (available in the Engineering Office) and transcripts as soon as possible (sophomore year) and will not be allowed to register for any Engineering upper division course (i.e. those numbered 3000 or above) until officially declared an Electrical Engineering major.

Key Courses:

<table>
<thead>
<tr>
<th>Key Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EE 2240</td>
<td>3 cr</td>
</tr>
<tr>
<td>EE 2274,2275 (Digital)</td>
<td>4 cr</td>
</tr>
<tr>
<td>CHEM 1111,1111L (Gen. Chem)</td>
<td>5 cr</td>
</tr>
<tr>
<td>CS 1181</td>
<td>5 cr</td>
</tr>
<tr>
<td>PHY 2211,2212</td>
<td>8 cr</td>
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</table>

Electrical Engineering Degree Requirements
Including the University's General Education Requirements (a minimum of 36 credits—see 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:
Science, Mathematics and Engineering

Core Courses (36 credits):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CS 1181</td>
<td>Computer Science and Programming I</td>
<td>3 cr</td>
</tr>
<tr>
<td>CS 1182</td>
<td>Computer Science and Programming II</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 3307</td>
<td>Technical Writing</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 1175</td>
<td>Calculus II</td>
<td>4 cr</td>
</tr>
<tr>
<td>MATH 2240</td>
<td>Linear Algebra</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 2275</td>
<td>Calculus III</td>
<td>4 cr</td>
</tr>
<tr>
<td>EE 2240</td>
<td>Introduction to Electrical Circuits</td>
<td>3 cr</td>
</tr>
<tr>
<td>EE 3340</td>
<td>Fundamentals of Electrical Devices</td>
<td>3 cr</td>
</tr>
<tr>
<td>EE 4418</td>
<td>Communication Systems</td>
<td>3 cr</td>
</tr>
<tr>
<td>EE 4426</td>
<td>Computer Architecture and Organization</td>
<td>3 cr</td>
</tr>
<tr>
<td>EE 4427, 4427L</td>
<td>Electrical Machines and Power, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>MATH 3360</td>
<td>Differential Equations</td>
<td>3 cr</td>
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**Fall Semester Junior Year**

<table>
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<tr>
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<tbody>
<tr>
<td>EE 3325</td>
<td>Electromagnetics</td>
<td>3 cr</td>
</tr>
<tr>
<td>EE 3345</td>
<td>Signals and Systems</td>
<td>3 cr</td>
</tr>
<tr>
<td>EE 4426</td>
<td>Computer Architecture and Organization</td>
<td>3 cr</td>
</tr>
<tr>
<td>EE 4427, 4447L</td>
<td>Electrical Machines and Power, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>MATH 3360</td>
<td>Differential Equations</td>
<td>3 cr</td>
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**Spring Semester Junior Year**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>EE 3329</td>
<td>Introduction to Electronics</td>
<td>3 cr</td>
</tr>
<tr>
<td>EE 4427, 4427L</td>
<td>Embedded Systems Engineering, and Lab</td>
<td>3 cr</td>
</tr>
<tr>
<td>EE 4473</td>
<td>Automatic Control Systems</td>
<td>3 cr</td>
</tr>
<tr>
<td>EE 4416</td>
<td>Applied Engineering Methods</td>
<td>3 cr</td>
</tr>
<tr>
<td>EE 4418</td>
<td>Communication Systems</td>
<td>3 cr</td>
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<td>EE 4426</td>
<td>Computer Architecture and Organization</td>
<td>3 cr</td>
</tr>
<tr>
<td>EE 4427, 4427L</td>
<td>Electrical Machines and Power, and Lab</td>
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<tr>
<td>EE 4473</td>
<td>Automatic Control Systems</td>
<td>3 cr</td>
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<tr>
<td>EE 4416</td>
<td>Applied Engineering Methods</td>
<td>3 cr</td>
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<td>EE 4426</td>
<td>Computer Architecture and Organization</td>
<td>3 cr</td>
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<td>EE 4418</td>
<td>Communication Systems</td>
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<tr>
<td>EE 4475</td>
<td>Digital Signal Processing</td>
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</tr>
<tr>
<td>EE 4484</td>
<td>Signal Processing Laboratory 1</td>
<td>1 cr</td>
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<tr>
<td>EE 4473</td>
<td>Automatic Control Systems</td>
<td>3 cr</td>
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<tr>
<td>EE 4475</td>
<td>Digital Signal Processing</td>
<td>3 cr</td>
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<td>EE 4484</td>
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<td>Signal Processing Laboratory 1</td>
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Recommended Schedule

**Fall Semester Freshman Year**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CHEM 1111, 1111L</td>
<td>General Chemistry I, and Lab</td>
<td>5 cr</td>
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<tr>
<td>CS 1181</td>
<td>Computer Science and Programming I</td>
<td>3 cr</td>
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<td>MATH 1170</td>
<td>Calculus I</td>
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<tr>
<td>CS 1181</td>
<td>Computer Science and Programming I</td>
<td>3 cr</td>
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<tr>
<td>MATH 1170</td>
<td>Calculus I</td>
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</tr>
<tr>
<td>Social Science and Humanities Course</td>
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**Spring Semester Freshman Year**

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<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CS 1182</td>
<td>Computer Science and Programming II</td>
<td>3 cr</td>
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<tr>
<td>ENGL 1102</td>
<td>Critical Reading and Writing</td>
<td>3 cr</td>
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<tr>
<td>MATH 1175</td>
<td>Calculus II</td>
<td>4 cr</td>
</tr>
<tr>
<td>PHYS 2211</td>
<td>Engineering Physics</td>
<td>4 cr</td>
</tr>
<tr>
<td>COMM 1101</td>
<td>Principles of Speech</td>
<td>3 cr</td>
</tr>
<tr>
<td>EE 2240</td>
<td>Introduction to Digital Systems and Lab</td>
<td>4 cr</td>
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<td>MATH 2240</td>
<td>Linear Algebra</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHYS 2212</td>
<td>Engineering Physics</td>
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**Fall Semester Sophomore Year**

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<tr>
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<td>Signals and Systems</td>
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<td>Electrical Machines and Power, and Lab</td>
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<td>MATH 3360</td>
<td>Differential Equations</td>
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**Spring Semester Sophomore Year**

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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>EE 3340, 3342</td>
<td>Fundamentals of Electrical Devices, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>ENGL 3307</td>
<td>Technical Writing</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 2275</td>
<td>Calculus III</td>
<td>4 cr</td>
</tr>
<tr>
<td>MATH 3360</td>
<td>Differential Equations</td>
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**Fall Semester Senior Year**

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<tr>
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<tbody>
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<td>Signals and Systems</td>
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**Spring Semester Senior Year**

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</tr>
</tbody>
</table>

**Electrical Engineering Courses**

**EE 2240 Introduction to Electrical Circuits**


**EE 2274 Introduction to Digital Systems**

3 credits. Number systems; Boolean algebra fundamentals; system reduction, combinational and sequential logic. PREREQ: CS/MATH 1187. PRE-or-COREQ: EE 2275. F

**EE 2275 Introduction to Digital Systems Laboratory 1 credit.** Laboratory experience in the construction of basic digital logic circuits and state machines. PREREQ: EE 2274. F

**EE 3325 Electromagnetics 3 credits.** 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 Electrodynamics 3 credits.** Introduction to semiconductor theory, diodes, bipolar junction transistors and amplifiers, metal-oxide-semiconductor field effect transistors and amplifiers, and frequency response. PRE-or-COREQ: EE 3340. S


**EE 3342 Fundamentals of Electrical Devices Laboratory 1 credit.** Laboratory course emphasizing basic electrical measurements and methods. PRE-or-COREQ: EE 3340. S

**EE 3345 Signals and Systems 3 credits.** Linear time-invariant systems, continuous and discrete; Fourier series, Fourier transforms, discrete Fourier transforms; Laplace transforms; z-transforms; state-space analysis. PREREQ: EE 3340. PRE-or-COREQ: MATH 3360. F

**EE 4400 Senior Seminar 1 credit.** Current topics in Electrical Engineering. PREREQ: Senior standing in Electrical Engineering. F

**EE 4413 Techniques of Computer-Aided Circuit Analysis and Design 3 credits.** 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 4416 Applied Engineering Methods 3 credits.** 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 credits.** 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 credits.** Design, implementation, and performance evaluation of modern computer systems; instruction sets; data path 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 credits.** Integration of algorithms, software and hardware to design real-time and embedded systems for signal processing and control. PREREQ: EE 4426. PRE-or-COREQ: EE 4427L. S

**EE 4427L Embedded Systems Engineering Laboratory 1 credit.** Design and implement embedded signal processing and control systems through the integration of algorithms, software, and hardware. PRE-or-COREQ: EE 4427. S

**EE 4429 Advanced Electronics 2 credits.** Introduction to operational amplifiers and their applications, current mirrors, active loads, differential amplifiers, feedback and stability, filters, oscillators, Schmitt triggers, power amplifiers and voltage regulators. PREREQ: EE 3329. PRE-or-COREQ: EE 4429L. F

**EE 4429L Advanced Electronics Lab 1 credit.** Transistor biasing, amplifiers and other basic analog circuit designs. PRE-or-COREQ: EE 4429. F
Engineering of Science and College

EE 4482 Principles of Power Electronics 3
PREREQ: Permission of instructor. D
May be repeated for a maximum of 6 credits. Equivalent to CE/ENGR 4481 and CS 4482. PREREQ: Permission of instructor. D

EE 4481 Independent Problems 1-3 credits.
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 and CS 4482. PREREQ: Permission of instructor. D

EE 4472 Electrical Machines and Power 3 credits.
Theory and application of electrical machinery and transformers. Power and energy relationships in power systems. PREREQ: EE 3340 and EE 3342. PRE-or-COREQ: EE 4472. F

EE 4472L Electrical Machines and Power Laboratory 1 credit. Experimental study of the fundamental physical phenomena and characteristics of transformers, induction motors, synchronous and direct current machines. PRE-or-COREQ: EE 4472. F

EE 4473 Automatic Control Systems 3 credits. 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 credits. 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 4476 Semiconductor Processing and Fabrication 3 credits. 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 credits. 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 credits. Review of semiconductor band theory. Opto-electronics, quantum mechanics, heterojunctions, power and microwave semiconductor devices. PREREQ: EE 4478 or equivalent. D

EE 4480 Signal Processing Laboratory 1 credit. Design finite and infinite response digital filters in digital signal processing applications. PRE-or-COREQ: EE 4475. S


EE 4496 Project Design 3 credits. Conceptual design of multi-disciplinary electrical engineering projects. Design, analysis, and implementation of senior design projects proposed and defined in EE 4400. PREREQ: EE 4400. S

Department of Mechanical Engineering
Chair and Professor: Schoen
Professor: Bosworth
Associate Professors: Perez, Wabrek, Williams
Assistant Professor: Sebastian
Associate Lecturer: Hofle
Adjunct Faculty: Holmes, 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 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:
For students interested in focusing their ME degree in the **Energy** area, suggested electives are:

MATH 4421 Advanced Engineering Math 1  
MATH 4402 Introduction to Nuclear Engineering  
NE 4419 Energy Systems and Resources  
MATH 4443 Advanced Engineering Math II  
MATH 2240 Calculus III  
MATH 3360 Differential Equations  
MATH 3301 Linear Algebra  

ME 3325 Advanced Machine Design 3 credits. Statistical methods for design, failure analysis, advanced machine component design. PREREQ: ME 3323. D

ME 3341 Fluid Mechanics 3 credits. 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 credits. Theories of stresses and strains for ties, shafts, beams, columns and connections. Determination of deflections and the investigation of indeterminate members. An introduction to design. Equivalent to CE 3350. PREREQ: CE 2210 or ME 2210. F, S

ME 3353 Manufacturing Processes 3 credits. 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 credits. 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. F

ME 4405 Measurement Systems Design 3 credits. 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 credit. 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. S

ME 4415 Model Theory 3 credits. 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/ME 3341 and CE/ME 3350. D

ME 4416 Thermal Power Cycles 3 credits. 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 credits. Basic kinematics, sensors, actuators, measurements, electronics, microprocessors, programmable logic controllers, feedback control, robotics and intelligent manufacturing. PREREQ: MATH 3360 and ME 4473. D
ME 4440 Vibration Analysis 3 credits. Free vibration and forced response of single and multiple degree of freedom systems, normal modes, random vibrations, discrete, lumped mass, and continuous systems. Vibration control techniques. PREREQ: MATH 3360 and ME 4473. PRE-or-COREQ: ME 3323. S

ME 4443 Thermal Fluids Laboratory 1 credit. Measurement of thermal and fluid properties, experiments on fluid flow and heat transfer systems. PREREQ: ME 4476. F

ME 4451 Compressible Fluid Flow 3 credits. 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 CE/ME 3341. D

ME 4463 Mechanical Systems Design 3 credits. Application of engineering concepts and principles to the design of mechanical systems, including economic, environmental, sustainability, and societal considerations. PREREQ: ME 3323, ME 4466, and ME 4440. F

ME 4465 Thermal Fluid Systems Design 3 credits. Application of engineering concepts and principles to the design of thermal and fluid systems, including economic, environmental, sustainability, and societal considerations. PREREQ: CE/ME 3341 and ME 4476. S

ME 4473 Mechanical Control Systems 3 credits. Discrete and continuous time control system design, signal processing, embedded systems. PREREQ: ME 2220, EE 2240 and MATH 3360. F


ME 4480 Mechanical Engineering Seminar 1 credit. 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 credits. 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 credits. 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 and ME 4480. S

*Note: Courses marked with an asterisk (*) following the number may involve evening examinations and/or presentations.

Department of Nuclear Engineering and Health Physics

Chair and Professor: Brey
Associate Chair and Associate Professor: Dunzik-Gougou
Professors: Gesell, Imel, Kunze
Director of the Institute of Nuclear Science and Engineering, and Associate Professor: Lineberry
Director of Research Innovation in Science and Engineering, and Associate Professor: Burgett
Associate Professor: Harris
Visiting Assistant Professor: Tabatabaze
Assistant Lecturer: Gansauge
Emeritus Faculty: Wilson

Laboratory Supervisors: Claver, Dunker
Reactor Supervisor: Mallicoat

Accreditation -- Nuclear Engineering

The Bachelor of Science (BS) program in Nuclear Engineering (NE) is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org

Educational Objectives for Degree Program in Nuclear Engineering

The following Program Educational Objectives have been established:

- Application of Core Knowledge and Technical Competency — Our graduates will make significant contributions in the nuclear enterprise, either in industry, research, or educational careers as measured by peer recognition, visible leadership roles, and other evidence of professional accomplishments. Graduates working in a non-nuclear field, or doing non-nuclear work in the nuclear industry, will make contributions judged no less significant because of the technical field. Our graduates will broaden and deepen their knowledge and technical competency as they advance in their careers. In addition to on-the-job learning and training, our graduates will take initiative in acquiring further knowledge on their own and continue to pursue lifelong learning, including formal academic or continuing education courses as well as informal means such as reading journals in the field, participating in technical organizations, and attending technical conferences to keep current with developments in their chosen field.

- Professional Collaboration and Communication — As their careers develop, our graduates will become increasingly involved in collaborative work with teams composed of colleagues from other science and technology fields. To that end, they will communicate effectively with others to perform tasks, to make decisions, and to assume leadership roles.

- Professionalism — Our graduates will develop and uphold the highest standards of professionalism in their careers. They will recognize ethical issues when they arise and respond in an ethical manner. Our graduates will also take into consideration the economic, environmental, and societal consequences of their actions as they engage in their work. Our graduates will increase their awareness and involvement with issues in the nuclear enterprise, including the nuclear power industry and the many non-power applications of nuclear science and technology, particularly as these fields evolve years after their leaving ISU.

Within two to three years of graduation, the majority of our B.S. graduates in Nuclear Engineering will be working in industry, government agencies, or national laboratories and in many cases will be pursuing advanced degrees. After five to ten years many of our graduates will have established strong records of achievement at various technical and managerial levels in academia, industry and government, and will become leaders in the field.

Declaring a Nuclear Engineering Major

Key Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1170</td>
<td>Calculus I</td>
</tr>
<tr>
<td>MATH 1175</td>
<td>Calculus II</td>
</tr>
<tr>
<td>CHEM 1111, 1111L</td>
<td>General Chemistry I, and Lab</td>
</tr>
<tr>
<td>PHYS 2211, 2212</td>
<td>Engineering Physics I, II</td>
</tr>
<tr>
<td>NE 1105</td>
<td>Engineering Graphics</td>
</tr>
<tr>
<td>NE 1120</td>
<td>Introduction to Engineering</td>
</tr>
<tr>
<td>CS 1181</td>
<td>Computer Science and Programming I</td>
</tr>
<tr>
<td>CE 2210</td>
<td>Engineering Statics</td>
</tr>
<tr>
<td>ENGR 2223, 2224</td>
<td>Materials and Measurements, and Laboratory</td>
</tr>
<tr>
<td>EE 2240</td>
<td>Introduction to Electrical Circuits</td>
</tr>
<tr>
<td>ME 2220</td>
<td>Engineering Dynamics</td>
</tr>
</tbody>
</table>

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 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.

First Year

Fall Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHRM 1111</td>
<td>General Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1102</td>
<td>Critical Reading and Writing</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1170</td>
<td>Calculus I</td>
<td>4</td>
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<tr>
<td>NE 1120</td>
<td>Introduction to Nuclear Engineering</td>
<td>1</td>
</tr>
<tr>
<td>Objective Course</td>
<td>(minimum) 3 cr</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(minimum) 16 cr</td>
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Spring Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS/NE 1181</td>
<td>Structured Programming</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 1105</td>
<td>Engineering Graphics</td>
<td>2</td>
</tr>
<tr>
<td>MATH 1175</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 2211</td>
<td>Engineering Physics I</td>
<td>4</td>
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Second Year

Fall Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEME 2210</td>
<td>Engineering Statics</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 2223, 2224</td>
<td>Materials and Measurements, and Lab</td>
<td>4</td>
</tr>
<tr>
<td>MATH 2275</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 2212</td>
<td>Engineering Physics II</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>(minimum) 16 cr</td>
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Spring Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE/ME 3350</td>
<td>Mechanics of Materials</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2240</td>
<td>Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3360</td>
<td>Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>ME 2220</td>
<td>Engineering Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>NE 3301</td>
<td>Nuclear Engineering I</td>
<td>3</td>
</tr>
</tbody>
</table>

Third Year

Fall Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEME 3341</td>
<td>Fluid Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4421</td>
<td>Advanced Engineering</td>
<td>3</td>
</tr>
<tr>
<td>ME 3307</td>
<td>Thermodynamics</td>
<td>3</td>
</tr>
<tr>
<td>NE 3302</td>
<td>Nuclear Engineering II</td>
<td>3</td>
</tr>
<tr>
<td>Objective course</td>
<td>(minimum) 3 cr</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(minimum) 15 cr</td>
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Spring Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EE 2240</td>
<td>Introduction to Electrical Circuits</td>
<td>3</td>
</tr>
<tr>
<td>EE 4416</td>
<td>Applied Engineering Methods</td>
<td>3</td>
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</table>

Fourth Year

Fall Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE 3361</td>
<td>Engineering Economics and Management</td>
<td>3</td>
</tr>
<tr>
<td>ME 4443</td>
<td>Thermal Fluids Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>NE 4445</td>
<td>Reactor Physics</td>
<td>3</td>
</tr>
<tr>
<td>NE 4496A</td>
<td>Project Design I</td>
<td>1</td>
</tr>
<tr>
<td>NE or other Engineering elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENGR elective</td>
<td>(minimum) 3 cr</td>
<td></td>
</tr>
<tr>
<td>Objective course</td>
<td>(minimum) 3 cr</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(minimum) 17 cr</td>
<td></td>
</tr>
</tbody>
</table>

Spring Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EE 4416</td>
<td>Applied Engineering Methods</td>
<td>3</td>
</tr>
<tr>
<td>NE 4419</td>
<td>Energy Systems and Nuclear Power</td>
<td>3</td>
</tr>
<tr>
<td>NE 4447</td>
<td>Nuclear Systems Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>NE 4453</td>
<td>Nuclear Seminar</td>
<td>1</td>
</tr>
<tr>
<td>NE 4496B</td>
<td>Project Design II</td>
<td>3</td>
</tr>
<tr>
<td>Objective course</td>
<td>(minimum) 3 cr</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(minimum) 17 cr</td>
<td></td>
</tr>
</tbody>
</table>

Nuclear Engineering Courses

NE 1120 Introduction to Nuclear Engineering 1 credit. Introduction to the engineering profession, and to nuclear engineering in particular. F, S

NE 1181 Structured Programming 2 credits. Problem solving methods and algorithm development with an emphasis on programming style. Lecture. Equivalent to CS 1181. PREREQ: MATH 1147 or equivalent. F, S

NE 3301 Nuclear Engineering I 3 credits. 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. PRE-or-COREQ: PHYS 2212. S

NE 3302 Nuclear Engineering II 3 credits. 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. PRE-or-COREQ: MATH 3360. F


NE 4446 Nuclear Fuel Cycle Systems 3 credits. 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 4445. S
Health Physics

The Department of Nuclear Engineering and Health Physics offers the A.S. and B.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 Physics and the student's official transcript indicates an emphasis in Health Physics.

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.

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.

Students earning either degree in the Health Physics program must complete 8 of the 9 General Education Requirements (a minimum of 36 credits—see the Academic Information section of this Catalog). Some courses listed as degree requirements will also satisfy or partially satisfy General Education Objectives, as noted.

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.

The objective of the Idaho State University Health Physics program is to produce Health Physicists with:

- 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 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.

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.

Students earning either degree in the Health Physics program must complete 8 of the 9 General Education Requirements (a minimum of 36 credits—see the Academic Information section of this Catalog). Some courses listed as degree requirements will also satisfy or partially satisfy General Education Objectives, as noted.

Bachelor of Science in Physics (Health Physics Emphasis)

<table>
<thead>
<tr>
<th>BIOL 1101, 1101L</th>
<th>Biology I and Lab</th>
<th>4 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 3301</td>
<td>Anatomy and Physiology</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 3302</td>
<td>Anatomy and Physiology</td>
<td>4 cr</td>
</tr>
<tr>
<td>CHEM 1102, 1103</td>
<td>Introduction to Organic and Biochemistry, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>CHEM 1111, 1111L</td>
<td>General Chemistry I, and Lab</td>
<td>5 cr</td>
</tr>
<tr>
<td>CHEM 1112, 1112L</td>
<td>General Chemistry II, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>CS 1181</td>
<td>Computer Science and Programming I</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 3307</td>
<td>Professional and Technical Writing</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 1147</td>
<td>Precalculus</td>
<td>5 cr</td>
</tr>
<tr>
<td>PHYS 4416</td>
<td>Radiation Detection and Measurement</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHYS 4431</td>
<td>Radiation Physics I</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHYS 4432</td>
<td>Radiation Physics II</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHYS 4433</td>
<td>External Dosimetry</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHYS 4434</td>
<td>Internal Dosimetry</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHYS 4455</td>
<td>Topics in Health Physics I</td>
<td>2 cr</td>
</tr>
<tr>
<td>PHYS 4456</td>
<td>Topics in Health Physics II</td>
<td>2 cr</td>
</tr>
<tr>
<td>PHYS 4480</td>
<td>Health Physics Capstone</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHYS 4488</td>
<td>Advanced Radiobiology</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHYS 4492</td>
<td>Colloquium in Physics</td>
<td>2 cr</td>
</tr>
</tbody>
</table>

Bioscience Track

| BIOL 2209     | General Ecology | 3 cr |
| BIOL 3315     | Introduction to Biometry | 3 cr |
| MATH 1160     | Applied Calculus | 3 cr |
| PHYS 1111     | General Physics I | 3 cr |
| PHYS 1112     | General Physics II | 3 cr |
| PHYS 1113, 1114 | General Physics Laboratory | 2 cr |

Applied Science Track

| MATH 3350     | Statistical Methods | 3 cr |
| MATH 1170     | Calculus I | 4 cr |
| MATH 1175     | Calculus II | 4 cr |
| MATH 2275     | Calculus III | 4 cr |
| PHYS 2211, 2212 | Engineering Physics | 8 cr |
| PHYS 2213, 2214 | Engineering Physics Laboratory | 2 cr |

Associate of Science in Physics (Health Physics Emphasis)

The objective of the Idaho State University program that awards an Associate of Science in Physics with Emphasis 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 lifelong 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 Academic Information section of this Catalog).

Curriculum

**Summer before 1st Year**

| HPHY 2217 | RCT Internship I (Optional) | 3 cr |

**Fall 1st Year**

| BIOR 1101, 1101L | Biology I, and Lab | 4 cr |
| ENGL 1101       | English Composition | 3 cr |
| MATH 1147       | Precalculus | 5 cr |
| MATH 1143       | College Algebra | 3 cr |
| MATH 1144       | Trigonometry | 2 cr |
| HPHY 2218       | Fundamentals of Radiation Protection | 3 cr |
| PSYC 1101       | Introduction to General Psychology | 3 cr |

**Spring 1st Year**

<p>| COMM 1101      | Principles of Speech | 3 cr |
| ECON 1105      | Economic Issues | 3 cr |
| ENGL 1102      | Critical Reading and Writing | 3 cr |
| MATH 1153      | Introduction to Statistics | 3 cr |
| HPHY 2226      | Radiation Protection I | 3 cr |</p>
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPHY 3300</td>
<td>Medical Electronics</td>
<td>2 cr</td>
</tr>
<tr>
<td></td>
<td>Objective course</td>
<td>3 cr</td>
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**Summer following 1st Year**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HPHY 2219</td>
<td>RCT Internship II</td>
<td>3 cr</td>
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**Fall 2nd Year**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1111, 1111L, General Chemistry I, and Lab</td>
<td>5 cr</td>
<td></td>
</tr>
<tr>
<td>PHYS 1111</td>
<td>General Physics I</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHYS 1113</td>
<td>General Physics I Laboratory</td>
<td>1 cr</td>
</tr>
<tr>
<td>HPHY 2225</td>
<td>Radiation Protection Instrumentation</td>
<td>3 cr</td>
</tr>
<tr>
<td>HPHY 2227</td>
<td>Radiation Protection II</td>
<td>3 cr</td>
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**Spring 2nd Year**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
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<td>PHYS 1112</td>
<td>General Physics II</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHYS 1114</td>
<td>General Physics II Laboratory</td>
<td>1 cr</td>
</tr>
<tr>
<td>CHEM 1112, 1112L, General Chemistry II, and Lab</td>
<td>4 cr</td>
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</tr>
<tr>
<td>HPHY 2228</td>
<td>Health Physics Regulations</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHIL 1101</td>
<td>Introduction to Philosophy</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL 3307</td>
<td>Radiobiology</td>
<td>2 cr</td>
</tr>
<tr>
<td></td>
<td>Objective course</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

**Total:** 76 or 79 cr

### Health Physics Courses

**HPHY 2217 RCT Internship I 3 credits.** Structured Internship. A required course 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 credits.** 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, detectors, accelerators, X-ray machines, units and terminology. F

**HPHY 2219 RCT Internship II 3 credits.** 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 credits.** 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 credits.** 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 credits.** 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 credits.** Reviewing 10 CFR 19, 20, 30, 35, 83, 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 credits.** 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: HPHY 2218. F

**HPHY 3321 Radiologic Physics 2 credits.** 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 4411 Accelerator Health Physics 3 credits.** 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 credits.** 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 credits.** 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 4415 Introduction to Nuclear Measurements 3 credits.** 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 4417 Industrial Ventilation and Aerosol Physics 3 credits.** 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 credits.** Occupational safety and health issues of human exposure to non-ionizing 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 credits.** Radiological emergency planning for facilities ranging from reactors and other major nuclear facilities to transportation accidents and smaller-scale nuclear accidents. Topics include planning, coordination, “exercises”, exposure pathways, modeling, measurement, control, decontamination, and recovery. PREREQ: Permission of instructor. Se

**HPHY 4420 Reactor Health Physics 3 credits.** 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 credits.** 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 credits.** 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 credits.** 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 credits.** A lecture course emphasizing internal radiation protection including studies of ICRP-2, ICRP60/30, 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 credits.** A lecture/semester 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 credits.** A continuation of HPHY 4455. Lecture/semester 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 4480 Health Physics Capstone Course 3 credits.** 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 end point. PREREQ: Permission of instructor. F, S

**HPHY 4488 Advanced Radiobiology 3 credits.** 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 credits.** A course for practicing 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
Department of Geosciences

Chair and Professor: Thackray
Professors: Finney, Link, McCurry, Rodgers
Research Professor: Glenn
Associate Professors: Crosby, Leif Tapanila
Assistant Professors: Delparte, Godsey, Kobs, Lohse, Pearson
Research Assistant Professors: Sankey, Shapley
Assistant Lecturers: Bottenberg, Lori Tapanila
Affiliate Faculty: Dehler, Heath, Mahar, Plummer, Rittenour, Sherwin, Smith, Stephens, Welhan
GIS TReC Affiliate: Weber
Research Associate: Shrestha
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.

Admittance to Geosciences Major

Idaho State University recognizes three categories with regard to a student’s major status:

P—Pre-Major

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 1101 (3 cr.);
2. Earn a grade of “C” or better in GEOL 1110 (1 cr.);
3. Complete University General Education Objectives 1 through 3 (English, Speech, and Mathematics).
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 the 9 University General Education Objectives (a minimum of 36 credits—see the Academic Information section of this Catalog).

Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CHEM 1111, 1111L General Chemistry</td>
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<tr>
<td>MATH 1147</td>
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<td>GEOL 1100 The Dynamic Earth</td>
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</tr>
<tr>
<td>GEOL 1101 Physical Geology</td>
<td>3 cr</td>
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<tr>
<td>GEOL 1110 Physical Geology for Scientists Laboratory</td>
<td>1 cr</td>
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<tr>
<td>GEOL 2202 Historical Geology</td>
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<tr>
<td>GEOL 2210 Earth in Space and Time</td>
<td>3 cr</td>
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<tr>
<td>GEOL 3313 Earth Materials I</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL 3315 Evolution of the Earth’s Surface</td>
<td>4 cr</td>
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<tr>
<td>GEOL 4421 Structural Geology</td>
<td>4 cr</td>
</tr>
<tr>
<td>GEOL 4431 Geobiology and the History of Life</td>
<td>4 cr</td>
</tr>
<tr>
<td>GEOL 4452 Sedimentation-Stratigraphy</td>
<td>4 cr</td>
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<tr>
<td>GEOL 4456 Geology of Idaho</td>
<td>2 cr</td>
</tr>
<tr>
<td>GEOL 4458 Geology of North America</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

TOTAL: 31 to 32 geoscience credits plus 8 to 9 other upper division geoscience credits to equal 40 credits.

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 Academic Information section of this Catalog).

**Required Courses:**
- MATH 1147 Precalculus 5 cr
- MATH 1170 Calculus I 4 cr
- MATH 1175 Calculus II 4 cr
- CHEM 1111, 1111L General Chemistry I, and Lab 5 cr
- CHEM 1112, 1112L General Chemistry II, and Lab 4 cr
- PHYS 1111,*1112* Engineering Physics I and II 6 cr
- OR
- PHYS 2211,*2212* Engineering Physics (recommended) 8 cr
- GEOL 1100 The Dynamic Earth 3 cr
- OR
- GEOL 1101 Physical Geology (recommended) 3 cr
- GEOL 1110 Physical Geology for Scientists Laboratory 1 cr
- GEOL 2210 Earth in Space and Time 3 cr
- GEOL 3310 Earth Materials I 3 cr
- OR
- GEOL 3314 Earth Materials II 3 cr
- OR
- GEOL 4420 Principles of Geochemistry 3 cr
- GEOL 4431 Evolution of the Earth’s Surface 4 cr
- GEOL 4421 Structural Geology 4 cr
- GEOL 4430 Principles of Hydrogeology 3 cr
- OR
- GEOL 4431 Geobiology and the History of Life 4 cr
- GEOL 4450** Field Geology 6 cr
- GEOL 4452 Sedimentation-Stratigraphy 4 cr

**Plus one of the following three courses:**
- GEOL 4403,4403L Principles of Geographic Information Systems, and Lab 3 cr
- GEOL 4407 GPS Applications in Research 3 cr
- GEOL 4409 Remote Sensing 3 cr
- TOTAL: 37 to 38 required geoscience credits plus at least 10 other optional geoscience credits to equal at least 48 geoscience credits. GEOL 4430 is strongly recommended for those considering graduate studies or employment in the field of environmental geoscience.

*May choose the following optional courses:
- PHYS 1113,1114 General Physics Laboratory 2 cr
- PHYS 2213,2214 Engineering Physics Laboratory 2 cr

**GEOL 4450 is a 5-week summer field course, usually taken between the junior and senior years.**

### 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 campus programs.

The emphasis in this program spans local to global concerns. Core knowledge is developed through a set of required courses across several disciplines, emphasizing the Geosciences, and through required and elective core courses. The student then chooses a specific track composed of other disciplinary courses.

### Curriculum Outline

The Earth and Environmental Systems curriculum consists of three components: required cross-disciplinary courses, required and elective core courses, and required and elective courses in one of five cross-disciplinary tracks. Most students will be able to complete degree requirements (76-80 credits) and general education requirements (40-46 credits) within the typical 120-credit, 4-year Bachelor’s degree. Some of the degree requirements will also satisfy general education requirements. Depending on results of placement tests in mathematics and other areas, some students use as many as 61 credits to satisfy general education requirements, and will thus require more than 120 credits to fulfill both general education and degree requirements.

### Required General Courses (27-28 cr)

The Required General Courses provide a solid background in areas outside of the Department of Geosciences. Environmental Systems include physical, biological, and human systems; thus, we require course work in biological sciences, physical science, mathematics, statistics and social sciences. Many of these courses may satisfy General Education Objective requirements; refer to the Academic Information section of the Catalog for the University’s General Education Requirements.

### Bachelor of Science in Geology—Emphasis in Engineering Geology

Complete the following courses in addition to the Bachelor of Science in Geology:

- CE/GEOL 4454 Basic Engineering Geology 3 cr
- CE/GEOL 4455 Geologic Data Methods 3 cr
- CE/GEOL 4475 Essentials of Geomechanics 3 cr
- CE/GEOL 4476 Engineering Geology Project 1 cr
- CE 4480 Earthquake Engineering 3 cr

### Required and Elective Core Courses (28-31 cr):

The required and elective core provides a broad background in Earth Systems and Geosciences. The GEOL 1100 course introduces the Earth System components and GEOL 4406 covers modern environmental issues and their relationship to the Geosciences. GEOL 4415, Past Global Changes and GEOL 4416, Global Environmental Change, are capstone integrative courses intended for seniors who have completed most degree requirements.

### Required Courses (18 cr)

- GEOL 1100, 1100L The Dynamic Earth, and Lab 4 cr
- GEOL 1110 Physical Geology for Scientists Laboratory 1 cr
- GEOL 2210 Earth in Space and Time 3 cr
- GEOL 3315 Evolution of the Earth’s Surface 4 cr
- GEOL 4406 Environmental Geology 3 cr
- GEOL 4416 Global Environmental Change 3 cr

### Geotechnologies core courses—Choose at least 2 courses from this list

- GEOL 4403,4403L Principles of Geographic Information Systems, and Lab 3 cr
- GEOL 4404 Advanced Geographic Information Systems 3 cr
- GEOL 4407 Global Positioning Systems include physical, biological, and human systems; thus, we require course work in biological sciences, physical science, mathematics, statistics and social sciences. Many of these courses may satisfy General Education Objective requirements; refer to the Academic Information section of the Catalog for the University’s General Education Requirements.

### Electives—choose at least 2 courses from this list (S-10 cr)

- GEOL 3313 Earth Materials I 3 cr
- GEOL 4402 Geomorphology 4 cr
- GEOL 4403,4403L Principles of Geographic Information Systems, and Lab 3 cr
- GEOL 4404 Advanced Geographic
Cross-disciplinary Tracks (21 cr):
Students must choose one track from the following list (at least 21 credits):

1. Biological Systems: 2000- through 4999-level courses in Biological Sciences, Geosciences (Earth Systems), Chemistry, and Sociology

2. Environmental Geochemistry: 2000-through 4999-level courses in Chemistry, Geosciences, and Biological Sciences

3. Environmental Health: 2000-through 4999-level courses in Biosciences, Sociology, Anthropology and Health Education

4. Environmental Policy and Management: 2000-through 4999-level courses in Economics, Management, Political Science, Biological Sciences, History, Speech, and English

5. Global Environmental Change: 2000-through 4999-level courses in Anthropology, Political Science, Geosciences (Earth Systems, Geotechnologies), and Sociology

Biological Systems Track (B.S.):
This track develops knowledge and skill in the biological sciences to complement the geoscience core. This track will train students interested in field-related positions who need to understand the environmental relations between geologic and living systems. The student must complete the required courses, plus electives to equal or exceed 21 credits.

Required (15-16 cr):
All of the following 3 courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL 4416</td>
<td>3</td>
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<tr>
<td>BIOL 4462</td>
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<tr>
<td>BIOL 4489</td>
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2 of the following 7 courses (remaining courses may be taken as electives)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL 2213</td>
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<tr>
<td>BIOL 2214</td>
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<td>BIOL 4426</td>
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<td>BIOL 4427</td>
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<tr>
<td>BIOL 4438</td>
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<tr>
<td>BIOL 4451</td>
<td>3</td>
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<tr>
<td>BIOL 4453</td>
<td>3</td>
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<tr>
<td>GEOL/HIST/POLS 4471</td>
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Electives

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<th>Credits</th>
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<tr>
<td>SOC 3335</td>
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<tr>
<td>BIOL 3315</td>
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<tr>
<td>BIOL 3337</td>
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<tr>
<td>CHEM 2211</td>
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</tr>
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<td>HIST 4430</td>
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<td>ENVE 4404</td>
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</tr>
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<td>GEOL 4402</td>
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<td>GEOL 4451</td>
<td>3</td>
</tr>
<tr>
<td>GEOL/HIST/POLS 4471</td>
<td>3</td>
</tr>
</tbody>
</table>

Environmental Geochemistry Track (B.S.):
This track develops knowledge and skill in the chemical, biological and engineering sciences to complement the Geoscience core. This emphasis track will train students interested in field- or laboratory-related positions who need to understand geochemical and biological components of hydrologic systems. The student must complete the required courses, plus electives to equal or exceed 21 credits.

Required (19 credits)

<table>
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<tr>
<th>Course</th>
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<tr>
<td>GEOL 4420</td>
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<tr>
<td>CHEM 1111</td>
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<tr>
<td>CHEM 2211</td>
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<tr>
<td>CHEM 3301, 3303</td>
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<td>ENVE 4410</td>
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<tr>
<td>BIOL 4432</td>
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Electives

<table>
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<tr>
<th>Course</th>
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<tr>
<td>BIOL 2221, 2221L Introductory Microbiology and Lab</td>
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<tr>
<td>CHEM 2232, 2234 Quantitative Analysis and Lab</td>
<td>4</td>
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<tr>
<td>CHEM 3351, 3352 Physical Chemistry*</td>
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<td>ENVE 4404 Environmental Risk Analysis 3</td>
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<tr>
<td>BIOL 4476 Ecology of Water Pollution 3</td>
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<tr>
<td>GEOL 4451 Field Methods in Environmental Sciences 3</td>
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</tbody>
</table>

*Note prerequisite courses.

Environmental Health Track (B.A.):
This track focuses on the relationship between environment and health concerns. It combines health science knowledge with the Geoscience core to train students interested in environment and health connections. Students from this track may find work in health or environmental governmental agencies and private sector employers looking for a broad range of science and social science skills. The student must complete the required courses, plus electives to equal or exceed 21 credits.

Required (16 credits)

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>BIOL 2221, 2221L Introductory Microbiology and Lab</td>
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<tr>
<td>BIOL 4476 Ecology of Water Pollution 3</td>
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<tr>
<td>ANTH 2230 Introduction to Biological Anthropology and Lab 4</td>
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<tr>
<td>H E 4442 Environmental Health and Education 2</td>
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Electives

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<tr>
<td>H E 3383 Epidemiology 3</td>
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<td>SOC/SOWK 3308 Sociological Methods and Social Work Research 3</td>
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<td>SOC 3309 Social Statistics 3</td>
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<td>SOC 3330 Sociology of Health and Illness 3</td>
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<td>SOC 4408 Population and Environment 3</td>
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<td>ANTH 4408 Special Topics in Medical Anthropology 3</td>
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<td>BIOL/PHIL 2230 Bioethics 3</td>
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<td>BIOL 3315 Introduction to Biometry 3</td>
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<td>BIOL 4425 General Parasitology 3</td>
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<td>MATH 4459 Applied Multivariate Analysis 3</td>
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<td>GEOL/HIST/POLS 4471 Historical Geography of Idaho 3</td>
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</tbody>
</table>

Environmental Policy and Management Track (B.A.):
This track develops knowledge needed to address environment and business issues. Students from this track will have skills necessary to work in business, government, non-profit, or policy-making venues where scientific background is valuable. The student must complete the required courses, plus electives to equal or exceed 21 credits.

Required (15 credits)

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<td>POLS 4455 Environmental Politics and Policy 3</td>
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<td>POLS 4453 Public Policy Analysis 3</td>
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<td>ECON 3352 Environmental Economics 3</td>
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<td>BIOL 4416 Population Ecology 3</td>
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Electives

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<tr>
<td>ECON 2201 Principles of Macroeconomics 3</td>
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<td>ECON 2202 Principles of Microeconomics 3</td>
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<td>ECON 4411 Political Economy 3</td>
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<td>POLS 4409 Community and Regional Planning 3</td>
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<td>HIST 4430 Environmental History 3</td>
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<td>COMM 4452 Conflict Management 3</td>
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<td>GEOL/PHYS 4410 Science in American Society 2</td>
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<tr>
<td>GEOL/HIST/POLS 4471 Historical Geography of Idaho 3</td>
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Global Environmental Change Track (B.S.):
This track examines the mechanisms and societal implications of global environmental change. The focus of this track includes feedbacks and mechanisms of environmental change, the magnitude and nature of recent environmental change within a longer-term context, and the role
of people in altering their environment. The student must complete the required courses, plus electives to equal or exceed 21 credits.

**Required (13 credits)**

<table>
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**Eletives**

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<tr>
<td>ANTH 2250</td>
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<td>BIOL 3337</td>
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<td>SOC 3335</td>
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**Minor in Geology**

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
<td>GEOL 1100</td>
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<tr>
<td>GEOL 1101</td>
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<tr>
<td>GEOL 1110</td>
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<td>GEOL 2200</td>
<td>3 cr</td>
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<td>GEOL 2210</td>
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<tr>
<td>IN ADDITION:</td>
<td>12 cr</td>
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<td>Total:</td>
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**Minor in GeoTechnology**

**Core Courses:**

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<th>Course</th>
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<tbody>
<tr>
<td>GEOL 4403/4403L</td>
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<tr>
<td>GEOL 4404</td>
<td>3 cr</td>
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<tr>
<td>GEOL 4407</td>
<td>3 cr</td>
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<td>BIOL 4418</td>
<td>1 cr</td>
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<tr>
<td>GEOL 4409</td>
<td>3 cr</td>
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**Electives (at least 5 credits):**

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<tr>
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<tr>
<td>BIOL 4482</td>
<td>1-3 cr</td>
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<td>GEOL 2210</td>
<td>3 cr</td>
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<td>GEOL 4427</td>
<td>3 cr</td>
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<tr>
<td>GEOL 4481</td>
<td>1-3 cr</td>
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**Geology Courses**

**GEOL 1100 The Dynamic Earth 3 credits.** 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, Su

**GEOL 1101 Physical Geology 3 credits.** Geological fundamentals: rocks and minerals, geologic time, plate tectonics, earthquakes, volcanoes, surface processes, earthresources and climatic change. Partially satisfies Objective 5 of the General Education Requirements. F, S, Su

**GEOL 1101L Physical Geology Lab 1 credit.** Classification and recognition of minerals and rocks; landforms on topographic maps and air photos. Geology of Pocatello area. PRIOR-COREQ: GEOL 1101. Partially satisfies Objective 5 of the General Education Requirements. F, S, Su

**GEOL 1103 Exploring Data and Information 3 credits.** 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 Objectives F, S

**GEOL 1110 Physical Geology for Scientists Laboratory 1 credit.** 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 1110. PRIOR-COREQ: GEOL 1100 or GEOL 1110. Partially satisfies Objective 5 of the General Education Requirements. F, S, Su

**GEOL 2202 Historical Geology 3 credits.** 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 1110. F

**GEOL 2210 Earth in Space and Time 3 credits.** Tools-oriented course in map coordinates, GPS, basic GIS and remote sensing, spreadsheet and data analysis. Includes applications to geologic maps, cross sections, and Geologic Time Scale. PREREQ: GEOL 1100 or GEOL 1110. PRIOR-COREQ: GEOL 1110. F, S

**GEOL 2281 Undergraduate Laboratory Experience 1-3 credits.** Participate in various laboratory or field-related tasks related to research projects, gaining practical experience via supervised operation of equipment, computers, and analytical instrumentation. PRIOR-COREQ: GEOL 4403 or GEOL 1101. Graded S/U. F, S, Su

**GEOL 3313 Earth Materials 1 3 credits.** 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. PRIOR-COREQ: CHEM 1111 and CHEM 1111L. F

**GEOL 3314 Earth Materials II 3 credits.** 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 credits.** 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 credit.** 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 credits.** 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 credits.** Assignments to apply principles from GEOL 4402. F

**GEOL 4403 Principles of Geographic Information Systems 3 credits.** 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: CIS 1101 or permission of instructor. COREQ: GEOL 4403L. F, S, W

**GEOL 4403L Principles of GIS Laboratory 0 credit.** Computer lab assignments to apply principles from GEOL 4403. COREQ: GEOL 4403. F

**GEOL 4440 Advanced Geographic Information Systems 3 credits.** 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 credits. 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 4406 Environmental Geology 3 credits. 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, W

GEOL 4407 GPS Applications in Research 3 credits. 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. S

GEOL 4408 GeoTechnology Seminar 2 credits. 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 credits. 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 credits. Observational basis of science; technology’s historical influences on scientific development; 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 credits. 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 credits. 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 credits. A variety of terrigenous, volcaniclastic, and carbonate rocks will be studied. PRE-or-COREQ: GEOL 4411. AF

GEOL 4415 Quaternary Global Change 3 credits. Use and interpretation of landforms, sediments, and fossil life in the reconstruction of Quaternary events, environment, and climates. PREREQ: Permission of instructor. AS

GEOL 4416 Global Environmental Change 3 credits. 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 General Soils 3 credits. Formation, morphology, and distribution of soils, including developments in soil classification. PREREQ: GEOL 1100, GEOL 1101 or GEOL 1115 or permission of instructor. S

GEOL 4420 Principles of Geochemistry 3 credits. 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 credits. Structure of the earth’s crust. Investigation of behavior of materials; identification and interpretation of earth structures. PREREQ: MATH 1147 or equivalent, and GEOL 4452. S

GEOL 4421L Structural Geology Laboratory 0 credits. Assignments to apply principles in GEOL 4421. S

GEOL 4422 Planetary Geology 3 credits. 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, W

GEOL 4427 Information Technology for GIS 3 credits. Study of servers, networks, system administration, relational database design and management, spatial databases, 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. F

GEOL 4428 Programming for GIS 3 credits. 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 and instructor approval. F

GEOL 4430 Principles of Hydrogeology 3 credits. Surface and groundwater occurrence, movement and recovery, water quality and pollution, well construction principles, and computer modeling. PREREQ: MATH 1147; and GEOL 1100 or GEOL 1101 or permission of instructor. F

GEOL 4431 Geobiology and the History of Life 4 credits. 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. F

GEOL 4431L Invertebrate Paleontology Lab 0 credits. Assignments to apply principles from GEOL 4431. F

GEOL 4435 Vertebrate Paleontology 4 credits. 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 credits. Effects of processes which modify organisms between death and the time the usually fossilized remains are studied. Emphasis on vertebrates. Cross-listed as ANTH 4439, BIOL 4439. PREREQ: Permission of instructor. AS

GEOL 4440 Ore Deposits 3 credits. Nature, mode of occurrence, origin of ores with each type related to a given rock association and as the product of a particular environment. PREREQ: One of: GEOL 3314, GEOL 4452 (recommended), or GEOL 4421. AF

GEOL 4450 Field Geology 6 credits. 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 credits. 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 credits. 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. PRE-or-COREQ: CHEM 1111 and CHEM 1111L. COREQ: GEOL 4452L. F

GEOL 4452L Sedimentation-Stratigraphy Laboratory 0 credits. Assignments to apply principles in GEOL 4452. COREQ: GEOL 4452. F

GEOL 4454 Basic Engineering Geology 3 credits. 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 credits. 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 credits. Geologic provinces and plate tectonic history of Idaho. Topics include basement, Belt Supergroup, Phanerozoic passive margin, Cordilleran orogen, accreted terranes, Idaho batholith, Chal-lis volcanics, Idaho mineral deposits, Basin and Range, Snake River Plain and Pleistocene floods. PREREQ: GEOL 1100 or GEOL 1101. AS
GEOL 4458 Geology of North America 3 credits. 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 4471 Historical Geography of Idaho 3 credits. Influences of geography and geology on Idaho's economic, political and cultural history. May be taught and include field trips and discussion sections. Equivalent to HIST 4471 and POLS 4471. AS

GEOL 4475 Essentials of Geomechanics 3 credits. Essentials of rock fracture relevant to geological engineering including stress and strain, properties and classification of rock masses, rock fracture mechanisms. Equivalent to CE 4475. PREREQ: GEOL 4421 or CE/ENGR/ME 3350. D

GEOL 4476 Engineering Geology Project 1 credit. 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 credits. Visual Basic programming for GIS. PREREQ: GEOL 4403 and GEOL 4403L and permission of instructor. F, S

GEOL 4481 GeoTechnology Internship 1-3 credits. 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 credits. 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 credits. 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 credit. Supervised teaching of a GEOL undergraduate laboratory. PREREQ: 58 credits and permission of instructor. May be repeated up to 2 credits. Graded S/U. F, S

GEOL 4491 Seminar 1 credit. 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 4493 Senior Thesis 1-4 credits. 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. PREREQ: 90 credits and invitation by (or permission of) department chairperson(s). F, S

GEOL 4497 Workshop 1-2 credits. 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

Department of Mathematics

Chair and Professor: Fisher
Assistant Chair and Professor: Laquer
Professors: Bosworth, Egger, Hanin, Kriloff, Palmer, Payne, Stowe, Wolper
Associate Professors: S. Chen, Y. Chen, Derrybery, Gironella, Gryazin, W. Zhu
Assistant Professor: Y. Zhu
Visiting Assistant Professor: Foster-Greenwood

Senior Lecturers: Walker, Yost
Associate Lecturers: Kress, Martin, Miller, Mills, Potter
Assistant Lecturers: Alexander, Bowen, Jones, Lundeen, Qu, Reed, Zhong
Part-time Adjunct Faculty: Barclay, Christensen, 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's degrees offered in the Department of Mathematics have a common core consisting of the following six courses (21 credits):

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>CS 1181</td>
<td>Computer Science and Programming I*</td>
<td>3 cr</td>
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<tr>
<td>MATH 1170</td>
<td>Calculus I</td>
<td>4 cr</td>
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<td>MATH 1175</td>
<td>Calculus II</td>
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<td>MATH 2257</td>
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<tr>
<td>MATH 2240</td>
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<td>3 cr</td>
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<tr>
<td>MATH 3326</td>
<td>Elementary Analysis</td>
<td>3 cr</td>
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The two courses, ME 1185 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 Academic Information section of this Catalog).

Required Courses:

- MATH CORE (See above) 21 cr
- MATH 2287 Foundations of Mathematics 3 cr
- MATH 3360 Differential Equations 3 cr
- MATH 4407 Modern Algebra 3 cr
- MATH 4423 Introduction to Real Analysis 3 cr

Plus one of the following courses:

- MATH 3327 Vector Analysis 3 cr
- MATH 3343 Modern Geometry I 3 cr
- MATH 3352 Introduction to Probability 3 cr
- MATH 3362 Introduction to Complex Variables 3 cr

Plus 12 more credits of 4000-level mathematics coursework, which includes completing two of the following sequences:

- MATH 4407,4408 Modern Algebra I, II 6 cr
- MATH 4423,4424 Introduction to Real Analysis I, II 6 cr
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 Academic Information section of this Catalog).

Required Courses:
Required Courses: (39 credits)

Mathematics Core (shown above) 21 cr
MATH 3350 Statistical Methods 3 cr
MATH 3352 Introduction to Probability 3 cr
MATH 4450,4451 Mathematical Statistics I, II 6 cr
MATH 4457 Introduction to Statistics 3 cr
MATH 4458 Introduction to Computer C S 1181
Science and Programming I 3 cr

TOTAL MATH CREDITS: 17-20 cr
**MATH 1144 may be waived given a sufficient score on the Mathematics Placement Exam or the Mathematics Sub-test of the ACT or SAT.

Track B

CS 1181 Introduction to Computer Science and Programming I 3 cr
MATH 1170 Calculus I 4 cr
MATH 1175 Calculus II 4 cr
MATH 2275 Calculus III 4 cr
MATH 2287 Foundations of Mathematics 3 cr
Approved MATH electives 3 cr

Electives to bring total to 64 cr variable

TOTAL MATH CREDITS: 21 cr

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 3 cr
MATH 4406 Advanced Linear Algebra 3 cr
MATH 4423 Introduction to Real Analysis I 3 cr
MATH 4424 Introduction to Real Analysis II 3 cr
MATH 4441 Introduction to Numerical Analysis I 3 cr
MATH 4442 Introduction to Numerical Analysis II 3 cr
MATH 4453 Topics in Statistics* 3 cr
MATH 4459 Applied Multivariate Analysis 3 cr

*This is a 1-3 credit course, repeated for up to 3 credits

Minor in Applied Mathematics

Required Courses:
Mathematics Core (See above) 21 cr
MATH 3360 Differential Equations 3 cr

Additional courses (3 credits)

Choose three credits (one course) from the following list:
MATH 3352 Introduction to Probability 3 cr
MATH 4421 Advanced Engineering Mathematics I 3 cr
MATH 4441 Introduction to Numerical Analysis 3 cr
MATH 4465 Partial Differential Equations 3 cr

Minor in Mathematics

Required Courses:
Mathematics Core (See above) 21 cr

Additional courses (6 credits)

Choose six credits (two courses) from the following list:
MATH 3327 Vector Analysis 3 cr
MATH 3343 Modern Geometry 3 cr
MATH 3352 Introduction to Probability 3 cr
MATH 3360 Differential Equations 3 cr
MATH 3362 Introduction to Complex Variables 3 cr
MATH 4407 Modern Algebra I 3 cr

Mathematics Courses

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 (S in MATH 0015 and 0025) or by achieving appropriate scores on the ACT Mathematics exam, SAT Mathematics exam, or the Compass Mathematics Placement Exam. For placement purposes, prerequisite coursework or placement examinations must have been taken within the last seven years. See the Mathematics Department for further information.

Students must pass a mathematics course with a grade of C- or better before using that course as a prerequisite for another mathematics course.

MATH 0015 Arithmetic and Pre-algebra 0 credits (3 credit equivalent) Arithmetic of integers and rational numbers. Decimals; introduction to variables; linear equations; problems involving rates, ratios, proportions and percentages. Equivalent to TGE 0100M. Not eligible for academic credit. Graded S/U.

MATH 0025 Elementary Algebra 0 credits (3 credit equivalent). Variables and algebraic expressions. Absolute value; linear equations and inequalities and their applications; expansion and factorization of polynomials; rational expressions; radical expressions; the real number line; the Cartesian coordinate system and graphing of linear equations. Equivalent to TGE 0100A. Graded S/U.

MATH 0015, MATH 0025 in MATH 0015, a Math ACT score of 16 or higher, an SAT score of 530 or higher, or 46 or higher on the Pre-algebra section (MAPL 1). F, S, Su

MATH 1108 Intermediate Algebra 3 Credits. Topics in algebra, with an emphasis on solving equations and inequalities. Systems of linear equations; quadratic equations and the quadratic formula; polynomial, absolute value, rational, and radical equations and inequalities. Radical
and rational exponents. Parabolas, distance formula and circles. PREREQ: S in MATH 0025, a Math ACT score of 19 or higher, an SAT score of 460 or higher, or 45 or higher on the Algebra section (MAPL 2). F, S, Su

MATH 1123 Mathematics in Modern Society 3 credits. Survey of applications of mathematics to real-world problems. Topics from graph theory, management science, political science, statistics, geometry, and computer science. PREREQ: MATH 0025. Satisfies Objective 3 of the General Education Requirements. F, S, Su

MATH 1127 The Language of Mathematics 3 credits. Introduction to the precise language used throughout mathematics. Development of skills including reading with comprehension, expressing mathematical truths clearly, reasoning logically, and employing common patterns of mathematical thought. PREREQ: MATH 0025. Satisfies Objective 3 of the General Education Requirements. F, S, Su

MATH 1130 Finite Mathematics 3 credits. Introduction to probability, linear systems, inequalities, and linear programming. Applications directed to non-physical science areas. PREREQ: MATH 1108. Satisfies Objective 3 of the General Education Requirements. F, S


MATH 1144 Trigonometry 2 credits. Circular functions and right triangle approaches to trigonometry. Graphs of trigonometric functions: amplitude, frequency, phase shift. Trigonometric identities, inverse functions, and equations. Introduction to vectors in the plane, polar coordinates, and polar representation of complex numbers. PREREQ: MATH 1143. F, S, Su

MATH 1147 Precalculus 5 credits. A single one-semester course equivalent to College Algebra (MATH 1143) plus Trigonometry (MATH 1144). Credit cannot be granted in both MATH 1143 and MATH 1147, or in both MATH 1144 and MATH 1147. PREREQ: MATH 1108. F, S

MATH 1153 Introduction to Statistics 3 credits. Descriptive statistics, probability, confidence intervals, and hypothesis testing for one and two parameters. Emphasis on applications to a wide variety of disciplines. PREREQ: MATH 1108. Satisfies Objective 3 of the General Education Requirements. F, S, Su, W

MATH 1160 Applied Calculus 3 credits. Course in differential and integral calculus designed primarily for students in biological sciences, social sciences, business, education, and humanities. Credit cannot be granted in both MATH 1160 and MATH 1170. PREREQ: MATH 1143 or MATH 1147. Satisfies Objective 3 of the General Education Requirements. F, S, Su

MATH 1170 Calculus I 4 credits. First course in the sequence 1170, 1175, 2275. Real-valued functions of one real variable: limits, continuity, derivatives, integrals, applications. Credit cannot be granted in both MATH 1160 and MATH 1170. PREREQ: MATH 1144 or MATH 1147. Satisfies Objective 3 of the General Education Requirements. F, S, Su


MATH 1187 Applied Discrete Structures 3 credits. Discrete structures in CS and EE. Boolean algebra and logic; sets, functions, and relations; iteration, recursion, and induction; algorithms; programming in pseudocode; basic counting principles; graphs and trees; and other selected topics from discrete mathematics. Equivalent to CS 1187. PREREQ: CS 1181. S

MATH 2240 Linear Algebra 3 credits. 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 credits. Development of number systems. Emphasis on principles, representations, and concept development. For elementary education majors, satisfies Objective 3 of the General Education Requirements. PREREQ: MATH 1143. F

MATH 2257 Structure of Geometry and Probability for Elementary School Teachers 3 credits. Topics from geometry, probability, and statistics. Emphasis on principles, representations, and concept development. For elementary education majors, satisfies Objective 3 of the General Education Requirements. PREREQ: MATH 1143. S


MATH 2287 Foundations of Mathematics 3 credits. Logic and proofs, sets, functions, relations, mathematical induction, and the cardinality of sets. PREREQ: MATH 1170. F

MATH 3326 Elementary Analysis 3 credits. 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 credits. Calculus of vector functions of several variables, derivative matrix, chain rule, inverse function theorem, multiple integration. Change of variables. Integrals over curves and surfaces. Green’s, Stokes’ and divergence theorems. Applications to physics. PREREQ: MATH 2275. F

MATH 3343 Modern Geometry I 3 credits. Planar Euclidean geometry. Rigid motions and symmetry in the plane. PREREQ: MATH 2240 or MATH 2287. F

MATH 3350 Statistical Methods 3 credits. 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 credits. 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 credits. 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. AF

MATH 3356 Operations Research II 3 credits. 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. AS

MATH 3360 Differential Equations 3 credits. Theory and applications of ordinary differential equations. PREREQ: MATH 1175; MATH 2275 recommended. F, S

MATH 3362 Introduction to Complex Variables 3 credits. 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. D

MATH 4403 Survey of Combinatorics and Graph Theory 3 credits. 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 credits. 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 credits. 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. S

MATH 4407 Modern Algebra I 3 credits. Rings, fields, groups, algebras, and selected topics in abstract algebra. PREREQ: MATH 2240 and MATH 2287. F

MATH 4408 Modern Algebra II 3 credits. Rings, fields, groups, algebras, and selected topics in abstract algebra. PREREQ: MATH 4407. S

MATH 4421 Advanced Engineering Mathematics I 3 credits. 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 credits. Analysis of complex linear and nonlinear engineering systems using advanced techniques, including probability and statistics, advanced numerical methods and variational calculus. PREREQ: ENGR 4421 or MATH 4421. S

MATH 4423 Introduction to Real Analysis I 3 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. Transformation groups. Topics from hyperbolic, projective, and other geometries. S

MATH 4450 Mathematical Statistics 1 3 credits. 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 credits. 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 credits. Content varies. May be repeated for up to 6 credits. PREREQ: Permission of instructor. D

MATH 4457 Applied Regression Analysis 3 credits. 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 credits. 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 credits. 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 credits. 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 4473 Introduction to Topology 3 credits. 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 or permission of instructor. D

MATH 4491 Mathematics Seminar 1-3 credits. PREREQ: Senior or graduate student. May be repeated for up to 6 credits. PREREQ: Permission of instructor. D

MATH 4492 Mathematical Statistics II 3 credits. Metric spaces; convergence; notions of continuity; connected, separable and compact spaces. PREREQ: Permission of instructor. D

MATH 4493 Partial Differential Equations 3 credits. 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 4494 Introduction to Topology 3 credits. Metric spaces; convergence; notions of continuity; connected, separable and compact spaces. PREREQ: Permission of instructor. D

MATH 4495 Mathematics Seminar 1-3 credits. Advanced reading and discussion on selected topics in mathematics. May be repeated. PREREQ: 90 credits or equivalent. D

Department of Physics

Chair and Professor: Khandaker Professors: Dale, Shropshire Associate Professors: Cole, Tatar Research Associate Professors: Chouffani, Forest, Hunt Assistant Professor: McNulty Research Assistant Professor: Y. Kim, Starovoitova Senior Lecturer: Hackworth Lecturer: Bernabee Adjunct Faculty: Franczowia, Millward, Hobday Affiliate Faculty: Blackburn, DeVeaux, Harris, Hill, K. Kim, Roney, Wells Professors Emeriti: Beezhold, Harmon, Parker, Vegors

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 three undergraduate degree programs as well as a minor in physics. The Associate of Science, 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.

In addition to the more traditional physics program options, the Department of Physics also 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 Physics and the student’s official transcript indicates an emphasis in Health 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 A.S. degree in physics, the learning objectives are to achieve a hands-on core competence that is appropriate for a wide range of applied technical fields. This includes the general education objectives of a B.S. degree, plus knowledge of general physics, calculus, and general chemistry. The communication objectives at this level are writing and speaking skills that meet the needs of a within-a-work-group setting. Our expectations are that these students will obtain critical thinking skills and an ability to work independently in their technical field.

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 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, any of the lower-division PHYS choices below will partially satisfy General Education Objective 5.

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
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</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 3360</td>
<td>Differential Equations</td>
<td>3</td>
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</tbody>
</table>

At least 24 credits of Physics, including:

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</thead>
<tbody>
<tr>
<td>PHYS 2211,2212</td>
<td>Engineering Physics</td>
<td>8</td>
</tr>
<tr>
<td>PHYS 1111-1112</td>
<td>General Physics</td>
<td>6</td>
</tr>
<tr>
<td>PHYS 2213-2214</td>
<td>Engineering Physics Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>PHYS 1113-1114</td>
<td>General Physics Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>PHYS 3301</td>
<td>Modern Physics</td>
<td>3</td>
</tr>
</tbody>
</table>

An additional computer science course (PHYS 4492 cannot be counted toward the latter requirement).

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, any of the lower-division PHYS choices below will partially satisfy General Education Objective 5.

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</tbody>
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Electives to bring total to 64 cr variable

Electives to bring total to 64 cr variable

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.

Associate of Science in Physics
Students seeking an Associate of Science degree in Physics must complete the following:

General Education Objectives for the Bachelor of Science* (minimum) 36 cr

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>CHEM 1111, 1111L</td>
<td>General Chemistry I, and Lab</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 1112, 1112L</td>
<td>General Chemistry II, and Lab</td>
<td>4</td>
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</tbody>
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Calculus I and II

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<tbody>
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<td>4</td>
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<td>Differential Equations</td>
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Calculus III

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<thead>
<tr>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 3360</td>
<td>Differential Equations</td>
<td>3</td>
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</table>

Laboratory Physics Course

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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</thead>
</table>
| PHYS 1100 Essentials of Physics | 4 credits. A survey of basic physics principles; motion, gravitation, electricity and magnetism, light, atoms and nuclei. Includes lecture, demonstration and elementary problem solving. Satisfies Objective 5 of the General Education Requirements. COREQ: MATH 1108 or equivalent. F, S

PHYS 1111 Elements of Physics 3 credits. A survey of basic physics principles; motion, gravitation, electricity and magnetism, light, atoms and nuclei. Includes lecture, demonstration, elementary problem solving. Satisfies Objective 5 of the General Education Requirements. PREREQ: permission of the College of Technology. COREQ: MATH 1108 or equivalent; PHYS 1101L. F, S

PHYS 1101L Elements of Physics Laboratory 1 credit. Laboratory-based application of PHYS 1101, to demonstrate basic physics principles; motion, gravitation, electricity and magnetism, light, atoms and nuclei. Satisfies Objective 5 of the General Education Requirements. PREREQ: permission of the College of Technology. COREQ: MATH 1108 or equivalent; PHYS 1101. F, S

PHYS 1103 Tools for Scientists 1 1 credit. 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. F, S

PHYS 1111 General Physics 3 credits. Introductory physics course for students in scientific and...
technical fields, particularly the biological sciences; mechanics, wave motion, thermodynamics. Satisfies Objective 5 of the General Education Requirements. PREREQ: MATH 1143 or MATH 1147 or equivalent. F

PHYS 1112 General Physics II 3 credits. Introduction to optics, electricity and magnetism and selected topics from atomic and nuclear physics. Satisfies Objective 5 of the General Education Requirements. PREREQ: PHYS 1111 or equivalent, and MATH 1143 or MATH 1147 or equivalent. S

PHYS 1113 General Physics I Laboratory 1 credit. Demonstrating principles of physics. Satisfies Objective 5 of the General Education Requirements. COREQ: PHYS 1111. F, S

PHYS 1114 General Physics II Laboratory 1 credit. Demonstrating principles of physics. Satisfies Objective 5 of the General Education Requirements. PREREQ: PHYS 1113. COREQ: PHYS 1112. F, S

PHYS 1152 Descriptive Astronomy 3 credits. 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. Satisfies Objective 5 of the General Education Requirements. F, S, Su

PHYS 1153 Descriptive Astronomy Laboratory 1 credit. Use of astronomical equipment, telescopes, cameras, etc. Satisfies Objective 5 of the General Education Requirements. F, S, Su

PHYS 2211 Engineering Physics I 4 credits. Mechanics of particles and rigid bodies; kinetic theory and thermodynamics; electricity and magnetism; wave motion; optics. Satisfies Objective 5 of the General Education Requirements. F, S, Su

PHYS 2212 Engineering Physics II 4 credits. Mechanics of particles and rigid bodies; kinetic theory and thermodynamics; electricity and magnetism; wave motion; optics. Satisfies Objective 5 of the General Education Requirements. COREQ: MATH 1175. F, S

PHYS 2213 Engineering Physics I Laboratory 1 credit. Principles and methods of physical measurement. Satisfies Objective 5 of the General Education Requirements. PREREQ: PHYS 2211. F, S

PHYS 2214 Engineering Physics II Laboratory 1 credit. Principles and methods of physical measurement. Satisfies Objective 5 of the General Education Requirements. COREQ: PHYS 2211. F, S

PHYS 2215 Thermal Physics 1 credit. 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 credits. 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 credits. 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 1122L, MATH 1160 or MATH 1170. D

PHYS 3313 Intermediate Laboratory I 2 credits. 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 credits. 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 1122L, PHYS 1112 or permission of instructor. F, S, Su, W

PHYS 4400 Practicum in Physical Science 2 credits. 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 credits. 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 credits. 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 12 credits. 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 instructor. D

PHYS 4406 Advanced Physics Laboratory II 2 credits. 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 credits. Lecture course with computation requirements. Topics include: Error propagation, Probability Distributions, Least Squares fit, multiple regression, goodness of fit, covariance and correlations. PREREQ: MATH 3360. AS

PHYS 4409 Introductory Nuclear Physics 3 credits. Acourse 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. AF

PHYS 4410 Science in American Society 2 credits. 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 credits. 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 credits. 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. AF

PHYS 4416 Radiation Detection and Measurement 3 credits. Lecture/laboratory course emphasizing practical measurement techniques in nuclear physics. PREREQ: CHEM 1112, CHEM 1122L, and PHYS 1111 and PHYS 1113 or PHYS 2211 and PHYS 2213. S

PHYS 4421 Electricity and Magnetism I 3 credits. 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 credits each. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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, PHYS 3301. AF

PHYS 4481 Independent Problems 1-3 credits. Students are assigned to, or request assignment to, independent problems on the basis of interest. May be repeated for up to 6 credits. F, S

PHYS 4483 Theoretical Mechanics 4 credits. 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 credit. 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 4497 Workshop 1-2 credits. 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

Health Physics

The Department of Nuclear Engineering and Health Physics offers the A.S. and B.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 Physics and the student’s official transcript indicates an emphasis in 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.

Bachelor of Science in Physics (Health Physics Emphasis)

Educational Objectives for 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.

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.

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.

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.

Students completing this degree must complete 8 of the 9 General Education Objectives (a minimum of 36 credits—see the Academic Information section of this Catalog). Some of the lower-division BIOL and CHEM courses required for the degree also satisfy General Education Objective 5.

BIOI 1101, 1102 Biology I and Lab 4 cr
BIOI 3301 Anatomy and Physiology 4 cr
BIOI 3302 Anatomy and Physiology 4 cr
CHEM 1102, 1103 Introduction to Organic and Biochemistry, and Lab 4 cr
CHEM 1111, 1111L General Chemistry I, and Lab 5 cr
CHEM 1112, 1112L General Chemistry II, and Lab 4 cr
CS 1181 Computer Science and Programming I 3 cr
ENGL 3307 Professional and Technical Writing 3 cr
MATH 1147 PreCalculus 5 cr
PHYS 4416 Radiation Detection and Measurement 3 cr
HPHY 4431 Radiation Physics I 3 cr
HPHY 4432 Radiation Physics II 3 cr
HPHY 4433 External Dosimetry 3 cr
HPHY 4434 Internal Dosimetry 3 cr
HPHY 4455 Topics in Health Physics I 2 cr
HPHY 4456 Topics in Health Physics II 2 cr
HPHY 4480 Health Physics Capstone 3 cr
PHYS 4488 Advanced Radiobiology 3 cr
PHYS 4492 Colloquium 2 cr

Bioscience Track

BIOL 2209 General Ecology 3 cr
BIOL 3315 Introduction to Biometry 3 cr
MATH 1160 Applied Calculus 3 cr
PHYS 1111 General Physics I 3 cr
PHYS 1112 General Physics II 3 cr
PHYS 1113, 1114 General Physics Laboratory 2 cr

Applied Science Track

MATH 3350 Statistical Methods 3 cr
MATH 1170 Calculus I 4 cr
MATH 1175 Calculus II 4 cr
MATH 2275 Calculus III 4 cr
PHYS 2211, 2212 Engineering Physics 8 cr
PHYS 2213, 2214 Engineering Physics Laboratory 2 cr

Associate of Science in Physics (Health Physics Emphasis)

The objective of the Idaho State University program that awards an Associate of Science in Physics (Emphasis in Health Physics) is to develop an individual to assume the role of a health physics technician (sometimes referred to as Radiologic 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 earning this degree must complete 8 of the 9 General Education Objectives (a minimum of 36 credits—see the Academic Information section of this Catalog). Some of the courses required for this degree also satisfy General Education Objectives, as noted.

Curriculum

**Summer before 1st Year**

- HPHY 2217 RCT Internship I (Optional) 3 cr

**Fall 1st Year**

- BIOL 1101,1101L Biology I, and Lab 4 cr
- ENGL 1101 English Composition 3 cr
- MATH 1147 Precalculus 5 cr OR MATH 1143 College Algebra AND MATH 1144 Trigonometry 3 cr
- HPHY 2218 Fundamentals of Radiation Protection Physics 3 cr
- PSYC 1101 Introduction to General Psychology 3 cr (partially satisfies General Education Objective 6)

**Spring 1st Year**

- COMM 1101 Principles of Speech 3 cr (satisfies General Education Objective 2)
- ECON 1100 Economic Issues 3 cr (partially satisfies General Education Objective 6)
- ENGL 1102 Critical Reading and Writing 3 cr (satisfies General Education Objective 1)
- MATH 1153 Introduction to Statistics 3 cr (satisfies General Education Objective 3)
- HPHY 2226 Radiation Protection I 3 cr
- HPHY 3300 Medical Electronics 2 cr
- General Education Objective course 3 cr

**Summer following 1st Year**

- HPHY 2219 RCT Internship II 3 cr

**Fall 2nd Year**

- CHEM 1111, 1111L General Chemistry I, and Lab 5 cr
- PHYS 1111 General Physics I 3 cr (the 3 courses above satisfy General Education Objective 5)
- PHYS 1113 General Physics I Laboratory 1 cr
- HPHY 2225 Radiation Protection 3 cr
- HPHY 2227 Radiation Protection II 3 cr

**Spring 2nd Year**

- PHYS 1112 General Physics II 3 cr
- PHYS 1114 General Physics II Laboratory 1 cr
- CHEM 1112, 1112L General Chemistry II, and Lab 4 cr
- HPHY 2228 Health Physics Regulations 3 cr
- PHIL 1101 Introduction to Philosophy 3 cr (partially satisfies General Education Objective 4)
- BIOL 3307 Radiobiology 2 cr

General Education Objective course 3 cr

Total: 76 or 79 cr

### Health Physics Courses

**HPHY 2217 RCT Internship I 3 credits.** 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 credits.** 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 credits.** 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 I 3 credits.** 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 II 3 credits.** 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 III 3 credits.** 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 biosafety techniques. PREREQ: HPHY 2218. F

**HPHY 2228 Health Physics Regulations 3 credits.** Reviewing 10 CFR 19, 20, 30, 35, 853 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 credits.** 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. PRE-or-COREQ: HPHY 3321. S

**HPHY 3321 Radiologic Physics 2 credits.** 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 4411 Accelerator Health Physics 3 credits.** 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. F

**HPHY 4412 Environmental Health Physics 3 credits.** 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 credits.** 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 credits.** Lecture/laboratory course emphasizing practical measurement techniques in nuclear physics. PREREQ: CHEM 1112, and PHYS 1111 and PHYS 2211 and PHYS 2213. S

**HPHY 4417 Industrial Ventilation and Aerosol Physics 3 credits.** 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 4419 Radiological Emergency Planning 3 credits.** Radiological emergency planning for facilities ranging from reactors and other major nuclear facilities to transportation accidents and smaller-scale nuclear accidents. Topics include planning, coordination, “exercises”, exposure pathways, modeling, measurement, control, decontamination, and recovery. PREREQ: Permission of instructor. Se

**HPHY 4420 Reactor Health Physics 3 credits.** 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 credits.** 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 credits.** 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 credits. 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 credits. 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 credits. 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 credits. 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 4480 Health Physics Capstone Course 3 credits. 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 end point. PREREQ: Permission of instructor. F, S

HPHY 4488 Advanced Radiobiology 3 credits. 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 credits. A course for practicing 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
College of Technology

Scott Rasmussen, Dean
Debra Ronneburg, Interim Associate Dean

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.

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.
   • Complete the COMPASS placement test. This test enables us to place you in the appropriate classes to enhance your success in college.
   OR
   • Submit ACT/SAT scores, (valid for seven years from date of testing).
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.

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.

<table>
<thead>
<tr>
<th>Subject, and Required Courses</th>
<th>High School Credits</th>
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</thead>
<tbody>
<tr>
<td>Mathematics</td>
<td></td>
</tr>
<tr>
<td>Algebra I, Geometry, Applied Math I, II, and III, Algebra II, Trigonometry, Discrete Math, Statistics, and other higher level math courses. Two (2) mathematics credits must be taken in the 11th or 12th grade.</td>
<td>4 cr*</td>
</tr>
<tr>
<td>Natural Science</td>
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</tr>
<tr>
<td>Applied Biology/Chemistry, Principles of Technology (Applied Physics), Anatomy, Biology, Earth Science, Geology, Physiology, Physical Science, Zoology, Physics, Chemistry, Agricultural Science and Technology courses. Two credits must be lab.</td>
<td>4 cr*</td>
</tr>
<tr>
<td>English</td>
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<tr>
<td>Composition, Literature, Applied English in the Workplace.</td>
<td>8 cr</td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
<tr>
<td>Professional-technical courses including Tech Prep sequences and organized work-based learning experiences connected to the school-based curriculum are strongly recommended.</td>
<td></td>
</tr>
</tbody>
</table>

**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 necessary forms in the Student Services office for approval to return to the program. Students will enter under the current catalog.

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 disenrolled due to non-attendance.

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 student 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 in required courses.
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. Six (6) credit hours of English/Communication—ENGL 1101 (required) and ENGL 1102 OR COMM 1101;
2. Three (3) credit hours of Mathematics/Computation selected from Objective 3;
3. Three (3) credit hours of Social Science/Human Relations selected from PSYC 1101, SOC 1101, or TGE 0135.
4. Three (3) credit hours of Elective General Education selected from any Objective not previously applied.

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. Please refer to the academic 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 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.
• Postsecondary Technical Certificate
• 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 two years 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/Bachelor of Applied Technology
The Bachelor of Applied Science (BAS) and the Bachelor of Applied Technology (BAT) degrees are interdisciplinary degrees designed specifically for students who have completed Associate of Applied Science (AAS) degrees approved by the Idaho State Board of Education. The purpose of these degrees 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. These degrees build 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 and BAT degrees are 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 www.isu.edu/ctech/studentservices/BAT.shtml.
Bachelor of Science Degree with a Major in Health Science

The objective of the Bachelor of Science with a major in Health Science, known locally as the BSHS, 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 under the direction of the Division of Health Sciences. See www.isu.edu/ctech/bshealth.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 week day.

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.

Aircraft Maintenance Technology

(2½ to 4 ½ Semesters)
Program Coordinator and Advanced Instructors: Shipley, Instructors: Roberts, Stewart

One 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/aircraftmaint.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.

Technical Certificate: Airframe

(2½ Semesters)
Required Courses:
AIRM 0101 Mathematics 3 cr
AIRM 0102 Aircraft Drawing 1 cr
AIRM 0103 Truss Structures 3 cr
AIRM 0104 Materials and Processes 7 cr
AIRM 0105 Sheetmetal Structure 6 cr
AIRM 0107 Forms and Regulations 3 cr
AIRM 0108 Basic Electricity 3 cr
AIRM 0109 Fluid Systems 5 cr
AIRM 0110 Landing Gear Systems 4 cr
AIRM 0111 Utility Systems 3 cr
AIRM 0112 Electrical Systems 5 cr
AIRM 0120 Structural Welding 2 cr

TOTAL: 45 cr

Advanced Technical Certificate: Power Plant

(4½ Semesters)
Required Courses:
AIRM 0101 Mathematics 3 cr
AIRM 0102 Aircraft Drawing 1 cr
AIRM 0103 Truss Structures 3 cr
AIRM 0104 Materials and Processes 7 cr
AIRM 0105 Sheetmetal Structure 6 cr
AIRM 0107 Forms and Regulations 3 cr
AIRM 0108 Basic Electricity 3 cr
AIRM 0109 Fluid Systems 5 cr
AIRM 0110 Landing Gear Systems 4 cr
AIRM 0111 Utility Systems 3 cr
AIRM 0112 Electrical Systems 5 cr
AIRM 0120 Structural Welding 2 cr
AIRM 0121 Basic Reciprocating Engines 3 cr
AIRM 0122 Advanced Reciprocating Engines 2 cr
AIRM 0123 Basic Turbine Engines 3 cr
AIRM 0124 Advanced Turbine Engines 2 cr
AIRM 0125 Engine Lubrication Systems 2 cr
AIRM 0126 Induction and Exhaust Systems 2 cr
AIRM 0127 Engine Fuel Systems 3 cr
AIRM 0128 Ignition and Cooling Systems 5 cr
AIRM 0129 Engine Electrical and Instrument Systems 4 cr
AIRM 0130 Engine Propellers 4 cr

TOTAL: 90 cr

Associate of Applied Science Degree: Airframe and Powerplant

(5½ Semesters)

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:
AIRM 0101 Mathematics 3 cr
AIRM 0102 Aircraft Drawing 1 cr
AIRM 0103 Truss Structures 3 cr
AIRM 0104 Materials and Processes 7 cr
AIRM 0105 Sheetmetal Structure 6 cr
AIRM 0107 Forms and Regulations 3 cr
AIRM 0108 Basic Electricity 3 cr
AIRM 0109 Fluid Systems 5 cr
AIRM 0110 Landing Gear Systems 4 cr
AIRM 0111 Utility Systems 3 cr
AIRM 0112 Electrical Systems 5 cr
AIRM 0120 Structural Welding 2 cr
AIRM 0121 Basic Reciprocating Engines 3 cr
AIRM 0122 Advanced Reciprocating Engines 2 cr
AIRM 0123 Basic Turbine Engines 3 cr
AIRM 0124 Advanced Turbine Engines 2 cr
AIRM 0125 Engine Lubrication Systems 2 cr
AIRM 0126 Induction and Exhaust Systems 2 cr
AIRM 0127 Engine Fuel Systems 3 cr
AIRM 0128 Ignition and Cooling Systems 5 cr
AIRM 0129 Engine Electrical and Instrument Systems 4 cr
AIRM 0130 Engine Propellers 4 cr

TOTAL: 75 cr

AIRM Courses
AIRM 0101 Mathematics 3 credits. Mathematical theory pertaining to gear ratios, areas, power formulas, bend allowances, and weight and balances on aircraft. F
AIRM 0102 Aircraft Drawing 1 credit. Theory and lab practice in making, reading, and using drawings and blueprints on aircraft. S
AIRM 0103 Truss Structures 3 credits. 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 credits. 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 credits. Theory and lab practice in maintenance and repair of metal aircraft. S
AIRM 0107 Forms and Regulations 3 credits. Theory and lab practice in interpretation and use of the various forms and regulations pertaining to aircraft maintenance. F
AIRM 0108 Basic Electricity 3 credits. 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 credits. 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 able to troubleshoot the systems. S
AIRM 0110 Landing Gear Systems 4 credits. Theory and lab practice in operation, maintenance, and repair of landing gear systems of the aircraft. S
AIRM 0111 Utility Systems 3 credits. 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 credits. Theory and lab practice in operation, maintenance, and repair of electrical systems in aircraft. Su
AIRM 0120 Structural Welding 2 credits. Theory and lab practice in gas welding of aircraft structural components. F
AIRM 0221 Basic Reciprocating Engines 3 credits. 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 credits. Repair and overhaul of reciprocating engines, installation and test. F
AIRM 0223 Basic Turbine Engines 3 credits. Design, construction, and operation of gas turbine and turbo-prop engines. S
AIRM 0224 Advanced Turbine Engines 2 credits. Repair and overhaul of turbine engines. S
AIRM 0225 Engine Lubrication Systems 2 credits. Design and operation of oil system; its repair and installation. S
AIRM 0226 Induction and Exhaust Systems 2 credits. Design and operation of air intake, exhaust on reciprocating and jet engines. F
AIRM 0227 Engine Fuel Systems 3 credits. Design and operation of carburetor, fuel injection, and hydromechanical fuel systems on reciprocating and jet engines. F
AIRM 0228 Ignition and Cooling Systems 5 credits. Design, operation, and overhaul of magneto ignition and capacitor discharge ignition, and cooling systems. F
AIRM 0229 Engine Electrical and Instrument Systems 4 credits. Design, operation, and overhaul of the various electrical components and system indicators used on aircraft engines. S
AIRM 0230 Engine Propellers 4 credits. Design, operation, overhaul, and installation of propellers and components. S
AIRM 0295 Independent Study 1-8 credits. 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 instructor. D
AIRM 0296 Independent Study 1-8 credits. 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 instructor. D
AIRM 0297 Independent Study 1-8 credits. 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 instructor. D
AIRM 0298 Special Topics 1-8 credits. 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
AIRM 0299 Special Topics 1-8 credits. 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

Associate Degree Registered Nurse Program

Director and 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 section), and one Bachelor of Science in Health Science degree (see description under the Health Occupations Department) are available in the College of Technology. Articulation into B.S. and M.S. programs in Nursing in the Division of Health Sciences 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:

a. 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.

b. Completion of the following prerequisite courses, or equivalents, with a grade of “C” or better: ENGL 1101 and 1102; PSYC 1101; NTD 2239 or 3340 (NTD 3340 preferred); BIOL 2221 and 2221L or equivalent, 3 credits from Objective 3 (MATH 1153 preferred); COMM 1101; and BIOL 3301, 3301L, 3302, and 3302L. Options exist for transfer credit or testing. Please consult with Student Services at (208) 282-2622.

c. Accumulative grade point average (GPA) of at least 2.5 for all post-secondary education, is required.

d. Active, unrestricted licensure to practice as an LPN in the State of Idaho.

e. Current CPR certification (AHA or American Red Cross only).

f. Proof of successful completion of IV Therapy course.

g. Proof of current immunization and verified good health status per program policy, upon conditional acceptance into the program.

h. 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.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

4½ Semester 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 Academic Information section of this Catalog). Listed below are program requirements, some of which will also satisfy General Education Objectives.

| BIOL 2221,2221L | Introductory Microbiology, and Lab | 4 cr |
| BIOL 3301,3301L | Anatomy and Physiology, and Lab | 4 cr |
| BIOL 3302,3302L | Anatomy and Physiology and Lab | 4 cr |
| COMM 1101 | Principles of Speech | 3 cr |
| ENGL 1101 | English Composition | 3 cr |
| ENGL 1102 | Critical Reading and Writing | 3 cr |
| NTD 2239 | Nutrition | 3 cr |
| NTD 3340 | Nutrition for Health Professionals (preferred) | 3 cr |
| PSYC 1101 | Introduction to General Psychology | 3 cr |
| Objective 3 (MATH 1153 preferred) | | 3 cr |
| Objective 4 | | (minimum) 6 cr |
| Objective 5 (minimum) 3 cr |

Program-Specific Courses

| ADRN 2210 | Nursing Transition | 2 cr |
| ADRN 2211 | Mental Health Nursing | 3 cr |
| ADRN 2212 | Clinical Foundations of Nursing III | 2 cr |
| ADRN 2220,2220L | Health Assessment, and Lab | 3 cr |
| ADRN 2230 | Medical and Surgical Nursing | 3 cr |
| ADRN 2231 | Clinical Foundations IV | 4 cr |
| ADRN 2232 | Family Nursing | 3 cr |
| ADRN 2233 | Medical and Surgical Nursing IV | 3 cr |
| ADRN 2245 | Clinical Foundations of Nursing V | 4 cr |
| MINIMUM TOTAL FOR DEGREE: 68 cr |

Suggested Course Sequence

Prior to program acceptance:

Options exist for transfer credit or testing. Please consult with student services at (208) 282-2622.

Semester 1 (Fall)

| BIOL 2221,2221L | Introductory Microbiology, and Lab | 4 cr |
| BIOL 3301,3301L | Anatomy and Physiology, and Lab | 4 cr |
| COMM 1101 | Principles of Speech | 3 cr |
| ENGL 1101 | English Composition | 3 cr |
| PSYC 1101 | Introduction to General Psychology | 3 cr |
| Total for Fall Semester: 17 cr |

Semester 2 (Spring)

| ADRN 1105 | Nursing Applications | 1 cr |
| BIOL 3302,3302L | Anatomy and Physiology, and Lab | 4 cr |
| ENGL 1102 | Critical Reading and Writing | 3 cr |
| NTD 2239 | Nutrition | 3 cr |
| OR | | |
| NTD 3340 | Nutrition for Health Professionals (preferred) | 3 cr |
| Objective 3 (MATH 1153 preferred) | | 3 cr |
| Other Objective | | (minimum) 3 cr |
| Total for Spring Semester: 17 cr |

After acceptance into program:

Semester 3 (Summer)

| ADRN 2210 | Nursing Transition | 2 cr |
| ADRN 2211 | Mental Health Nursing | 3 cr |
| ADRN 2212 | Clinical Foundations of Nursing III | 2 cr |
| Total for Summer Semester: 7 cr |

Semester 4 (Fall)

| ADRN 2220,2220L | Health Assessment, and Lab | 3 cr |
| ADRN 2230 | Medical and Surgical Nursing III | 3 cr |
| ADRN 2231 | Clinical Foundations of Nursing IV | 4 cr |
| Two Objective courses | | 6 cr |
| Total for Fall Semester: 16 cr |

Semester 5 (Spring)

| ADRN 2232 | Family Nursing | 3 cr |
| ADRN 2233 | Medical and Surgical Nursing IV | 3 cr |
| ADRN 2245 | Clinical Foundations of Nursing V | 4 cr |
| Objective course | | 3 cr |
| Total for Spring Semester: 13 cr |

ADRN Courses

| ADRN 1105 | Nursing Applications 1 credit. | |
| ADRN 2210 | Nursing Transition 2 credits. | |
| ADRN 2211 | Mental Health Nursing 3 credits. | |
| ADRN 2212 | Clinical Foundations of Nursing III 2 credits. | |
| ADRN 2220,2220L | Health Assessment Lab 1 credit. | |
| ADRN 2230 | Medical and Surgical Nursing III 3 credits. | |

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.

ADRN 2211 Mental Health Nursing 3 credits.
Nursing assessment and care of the patient and family experiencing psycho-social and mental health disorders within acute, chronic, and community settings. PREREQ: Admission to program. Su

ADRN 2212 Clinical Foundations of Nursing III 2 credits.
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 credits.
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 credit.
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 credits.
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 2221. F

ADRN 2231 Clinical Foundations of Nursing IV 4 credits.
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 credits.
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 credits.
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 credits.
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 credits.
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 instructor. D
Automotive Collision Repair and Refinishing

(2½ to 4 Semesters)

Program Coordinator and Master Instructor: Butler
Master Instructor: Beamis

Two 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.shtml](http://www.isu.edu/ctech/automotivecollision.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.

Technical Certificate: Automotive Collision Repair

(2½ Semesters)

Required Courses:
- ACRR 0146 Introduction to Automotive Collision Repair and Refinishing 8 cr
- ACRR 0147 Minor Collision Repair and Refinishing 8 cr
- ACRR 0210 Advanced Collision Repair I 8 cr
- ACRR 0211 Advanced Collision Repair II 8 cr
- ACRR 0212 Advanced Collision Repair III 8 cr

TOTAL: 40 cr

Advanced Technical Certificate: Automotive Repair and Refinishing

(4 Semesters)

Required Courses:
- ACRR 0146 Introduction to Automotive Collision Repair and Refinishing 8 cr
- ACRR 0147 Minor Collision Repair and Refinishing 8 cr
- ACRR 0160 Advanced Refinishing I 8 cr
- ACRR 0161 Advanced Refinishing II 8 cr
- ACRR 0162 Advanced Refinishing III 8 cr
- ACRR 0252 Cooperative Work Experience 8 cr

TOTAL: 64 cr

Associate of Applied Science Degree: Automotive Collision Repair and Refinishing

(4 Semesters)

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:
- Certificate in Automotive Collision Repair and Refinishing, plus:
  - ACRR 0146 Introduction to Automotive Collision Repair and Refinishing 8 cr
  - ACRR 0147 Minor Collision Repair and Refinishing 8 cr

ACCR 0160 Advanced Refinishing I 8 cr
ACCR 0161 Advanced Refinishing II 8 cr
ACCR 0162 Advanced Refinishing III 8 cr
ACCR 0252 Cooperative Work Experience 8 cr
ACCR 0210 Advanced Collision Repair I 8 cr
ACCR 0211 Advanced Collision Repair II 8 cr
ACCR 0212 Advanced Collision Repair III 8 cr

ACCR Courses

Students have three weeks to order the tools necessary for Automotive Collision Repair and Refinishing in ACRR 0146.

ACCR 0146 Introduction to Automotive Collision Repair and Refinishing 8 credits. Theory and practice to use and care for body tools, fasteners; operation of oxyacetylene and M.I.G. welding equipment including brazing and cutting. Also, the 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, Su

ACCR 0147 Minor Collision Repair and Refinishing 8 credits. 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, Su

ACCR 0160 Advanced Refinishing I 8 credits. 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, Su

ACCR 0161 Advanced Refinishing II 8 credits. 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

ACCR 0162 Advanced Refinishing III 8 credits. Tri-coating, stripping, and variation of painting applications. Troubleshooting and corrective actions for problems encountered when painting. PREREQ: ACRR 0161. F, S

ACCR 0210 Advanced Collision Repair I 8 credits. 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

ACCR 0211 Advanced Collision Repair II 8 credits. Frame and unibody repair and alignment.
Advanced Technical Certificate: Automotive Technology

(3 Semesters)

Required Courses:

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<th>Course Title</th>
<th>Credits</th>
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<td>Introduction to Automotive Technology</td>
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<td>AUTM 0110</td>
<td>Vehicle Controls I</td>
<td>4 cr</td>
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<td>AUTM 0111</td>
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<td>AUTM 0112</td>
<td>Power Trains I</td>
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<td>AUTM 0114</td>
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<td>AUTM 0115</td>
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<td>AUTM 0116</td>
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<td>Automotive Electrical II</td>
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<td>AUTM 0118</td>
<td>Live Work I</td>
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<tr>
<td>AUTM 0201</td>
<td>Advanced Electrical Systems</td>
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</table>

TOTAL: 57 cr

Associate of Applied Science Degree: Automotive Technology

(4 Semesters)

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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<td>AUTM 0116</td>
<td>Automotive Electrical I</td>
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<td>Live Work II</td>
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<tr>
<td>AUTM 0201</td>
<td>Advanced Electrical Systems</td>
<td>8 cr</td>
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</tbody>
</table>

TOTAL: 73 cr

AUTM Courses

AUTM 0100 Introduction to Automotive Technology 1 cr. Personal and equipment safety procedures in the automotive industry, use of hand tools, component identification and function, fasteners, use of threaded materials, tubing, hydraulic tools, and familiarization with technical manuals and procedures. Graded S/U. F, S, Su, W

AUTM 0110 Vehicle Controls I 4 credits. Brakes (drum and disk, power and manual), drivelines, and front-wheel drive shafts on foreign and domestic vehicles in accordance with Automotive Service Excellence (ASE) standards. COREQ: AUTM 0111. D

AUTM 0111 Vehicle Controls II 4 credits. Front and rear suspension systems, steering systems (power and manual) alignment, balancing of wheels, and steering systems, rear differentials, rear axles, universal joints, drivelines, and front-wheel drive shafts on foreign and domestic vehicles in accordance with Automotive Service Excellence (ASE) standards. COREQ: AUTM 0110. D

AUTM 0112 Power Trains I 3 credits. Car and truck clutches, manual transmissions (4 through 6 speed) manual transaxles (4 through 6 speed), transfer cases, and manual transmissions with overdrives on foreign and domestic vehicles in accordance with Automotive Service Excellence (ASE) standards. COREQ: AUTM 0112. D

AUTM 0113 Power Trains II 3 credits. Automatic transmissions (4 through 6 speed), torque converters, automatic overdrives, transaxles, and final drives on foreign and domestic vehicles in accordance with Automotive Service Excellence (ASE) standards. COREQ: AUTM 0115. D

AUTM 0114 Automotive Engines I 3 credits. Ignition systems, electrical theory, cylinder heads, valve trains, refinishing, and air conditioning for foreign and domestic vehicles in accordance with Automotive Service Excellence (ASE) standards. COREQ: AUTM 0114. D

AUTM 0115 Automotive Engines II 3 credits. Engine troubleshooting and diagnosis, engine tune-up procedures, engine overhaul procedures and process, reassembly, engine testing procedures, and electrical theory and testing for foreign and domestic vehicles in accordance with Automotive Service Excellence (ASE) standards. COREQ: AUTM 0117. D

AUTM 0116 Automotive Electrical I 4 credits. Alternator nomenclature and testing methods. Starter motor diagnostics, troubleshooting, repair, and test procedures. Chassis wiring components, computer control fundamentals, computer control electronics and methods, monitoring systems, and air conditioning for foreign and domestic vehicles in accordance with Automotive Service Excellence (ASE) standards. COREQ: AUTM 0117. D

AUTM 0117 Automotive Electrical II 4 credits. Computerized engine controls, electronic fuel injection and carburetor standard types, computer controlled fuel solenoids and throttle body carburetors, port injection, and computer controlled ignition and timing. Blowers, turbochargers, and vehicle emission control systems in accordance with Automotive Service Excellence (ASE) standards. COREQ: AUTM 0116. D

AUTM 0118 Live Work I 8 credits. Work on customer-owned, current, and late model vehicles in a shop environment. PREREQ: AUTM 0111, AUTM 0113, AUTM 0115, and AUTM 0117. D

AUTM 0119 Live Work II 8 credits. Prepares students for ASE certification via work on customer-owned, current, and late model vehicles in a shop environment. Shop management and customer relations. PREREQ: AUTM 0118. D

Automotive Technology

(3 to 4 Semesters)

Coordinator and Instructor: Gunter

Advanced Instructor: Fisher

Instructor: Smith

One Advanced 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://www.isu.edu/ctech/automotivetech.shtml.

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.

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 credits. Automotive electrical circuitry, window and water leak diagnosis, air bags, and seatbelts. PREREQ: ACRR 0210. F, S

ACRR 0252 Internship 8 credits. An opportunity for the student to receive on-the-job work experience with an automotive body business in either collision repair or refinishing. Graded S/U. PREREQ: ACRR 0216 and ACRR 0211. D

ACRR 0296 Independent Study 1-8 credits. 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 instructor. D

ACRR 0298 Special Topics 1-8 credits. 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
AUTM 0198 Special Topics 1-8 credits. 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 credits. Multiplexing communication protocols, labscoping 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 credits. 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 instructor. D

AUTM 0298 Special Topics 1-8 credits. 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

Business Technology

2 to 5 Semester Program Options
Coordinator and Advanced Instructor: Warren
Master Instructors: Campbell, Larson

Four Certificate options, 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/tech/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 is 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.

Post-secondary Technical Certificate: Business Technology

(1½ to 2 semesters)

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<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 cr</td>
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<td>BT 0144</td>
<td>Document Processing</td>
<td>3 cr</td>
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<tr>
<td>BT 0170</td>
<td>Introduction to Computers</td>
<td>3 cr</td>
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<td>BT 0173</td>
<td>Spreadsheets</td>
<td>3 cr</td>
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<td>BT 0174</td>
<td>Records and Database Management</td>
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<tr>
<td>TGE 0158</td>
<td>Employment Strategies</td>
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TOTAL: 18 cr

Technical Certificate: Accounting Technology

(2½ Semesters)

Required Courses:

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<td>BT 0118</td>
<td>Business Communications</td>
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<td>BT 0120</td>
<td>Concepts of Accounting</td>
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<td>BT 0144</td>
<td>Document Processing</td>
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<tr>
<td>BT 0147</td>
<td>Accounting Applications</td>
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<td>BT 0148</td>
<td>Payroll Procedures</td>
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<td>BT 0154</td>
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<td>BT 0170</td>
<td>Introduction to Computers</td>
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<td>BT 0171</td>
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<td>BT 0174</td>
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TOTAL: 37 cr

Technical Certificate: Administrative Technology

3 Semesters

Required Courses:

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<td>BT 0120</td>
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<tr>
<td>BT 0172</td>
<td>Integration and Presentation</td>
<td>3 cr</td>
</tr>
<tr>
<td>BT 0173</td>
<td>Spreadsheets</td>
<td>3 cr</td>
</tr>
<tr>
<td>BT 0174</td>
<td>Records and Database Management</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

TOTAL: 40 cr

Associate of Applied Science Degree: Accounting Technology

(4 to 5 Semesters)

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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BT 0112</td>
<td>Voice Recognition</td>
<td>1 cr</td>
</tr>
<tr>
<td>BT 0115</td>
<td>Practicum</td>
<td>3 cr</td>
</tr>
<tr>
<td>BT 0118</td>
<td>Business Communications</td>
<td>3 cr</td>
</tr>
<tr>
<td>BT 0119</td>
<td>Business Communications II</td>
<td>3 cr</td>
</tr>
<tr>
<td>BT 0120</td>
<td>Concepts of Accounting</td>
<td>3 cr</td>
</tr>
<tr>
<td>BT 0123</td>
<td>Business Mathematics</td>
<td>3 cr</td>
</tr>
<tr>
<td>BT 0144</td>
<td>Document Processing</td>
<td>3 cr</td>
</tr>
<tr>
<td>BT 0147</td>
<td>Accounting Applications</td>
<td>3 cr</td>
</tr>
<tr>
<td>BT 0148</td>
<td>Payroll Procedures</td>
<td>3 cr</td>
</tr>
</tbody>
</table>
BT 0114 Introduction to Business Technology 3 credits. Introduces general organizational and administrative office skills, professional dress, etiquette, ethics, and human relations. Explore careers in the field of business information. D

BT 0115 Practicum 1-3 credits. On-the-job experience through internships, cooperative training, externships, workstudy, or other on-site work experience modalities. Graded S/U. F, S, Su

BT 0117 Advanced Business Communications I 3 credits. 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 credits. 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 0121 Digital Input and Transcription 3 credits. Use current digital input devices (digital recorders, speech recognition, personal digital assistants, and handwriting tablets) and standard transcribing equipment to produce and manage business information. Emphasis on punctuation, word study, spelling, formatting, and proofreading skills. PREREQ: BT 0118 and BT 0144. D

BT 0123 Business Mathematics 3 credits. Review of basic mathematics with emphasis on application problems in common business situations. F, S

BT 0141 Keyboarding 1 credit. This is a tutorial class covering the keyboard and basic typing skills. Develops the student’s ability to type at a minimum rate of 25 nwpm. Graded S/U. F, S, Su

BT 0144 Document Processing 3 credits. Builds word processing competencies. Emphasis on learning word processing functions, developing basic formatting skills, and producing legible letters, memos, reports, and tables. PREREQ: 25 nwpm recommended. F, S, Su

BT 0145 Advanced Document Production 3 credits. Emphasizes advanced document proficiency in word processing, spreadsheets, database, and presentation software. The project-based content simulates a real-world setting and focuses on productivity, work habits, and communication skills. PREREQ: BT 0144. F, S


BT 0148 Payroll Procedures 3 credits. 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 credits. Preparation for a broad range of administrative office management responsibilities. Collaboration skills, professional development, and career planning strategies. PREREQ: BT 0118 and BT 0144. S, F

BT 0170 Introduction to Computers 3 credit. Basic concepts, vocabulary, and working knowledge required to use a computer. Weekly lectures/labs utilizing computers to understand concepts, operating systems, and software applications such as word processing, database, spreadsheets, electronic presentations, E-mail/Internet, and integrated projects that are used in the business environment. PREREQ: 25 nwpm. F, S, Su

BT 0171 Computerized Accounting 3 credits. This course is designed to offer the student the opportunity to experience hands-on microcomputer bookkeeping procedures, generate reports, and analyze financial statements. PREREQ: BT 0120, BT 0144, and BT 0170. F, S

BT 0172 Integration and Presentation 3 credits. Introduces basic principles of design and integrates a variety of computer application skills, e.g., Adobe, MS Office, Google Apps, and basic HTML/CSS to produce and present business information in electronic and print forms. F, S

BT 0173 Spreadsheets 3 credits. 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 credits. Introduces 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 or permission of instructor; typing speed of 25 nwpm recommended. F, S

BT 0201 Office Resource Management 3 credits. 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 credits. 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 credits. 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
Civil Engineering Technology

(4 Semesters)

Instructors: Leavitt, Vahsholtz

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

Advanced Technical Certificate:
Civil Engineering Technician
(4 Semesters)

Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CET 010</td>
<td>Applied Mathematics I</td>
<td>4 cr</td>
<td></td>
</tr>
<tr>
<td>CET 011/GEMT 1111</td>
<td>Drawing with CAD</td>
<td>3 cr</td>
<td></td>
</tr>
<tr>
<td>CET 0112/GEMT 1112</td>
<td>Beginning Surveying</td>
<td>5 cr</td>
<td></td>
</tr>
<tr>
<td>CET 0115</td>
<td>Materials Testing and Specifications I</td>
<td>2 cr</td>
<td></td>
</tr>
<tr>
<td>CET 0120</td>
<td>Applied Mathematics II</td>
<td>4 cr</td>
<td></td>
</tr>
<tr>
<td>CET 0121/GEMT 1121</td>
<td>Civil Engineering Technology Drafting</td>
<td>3 cr</td>
<td></td>
</tr>
<tr>
<td>CET 0122/GEMT 1122</td>
<td>Intermediate Surveying</td>
<td>5 cr</td>
<td></td>
</tr>
<tr>
<td>CET 0125</td>
<td>Materials Testing and Specifications II</td>
<td>2 cr</td>
<td></td>
</tr>
<tr>
<td>CET 0127</td>
<td>Land Surveying Practices</td>
<td>4 cr</td>
<td></td>
</tr>
</tbody>
</table>

General Education Requirements:

COMM 1101 Principles of Speech 3 cr (contributes to AAS Communication Requirement; satisfies Objective 2)
ENGL 1101 English Composition 3 cr (contributes to AAS Communication Requirement)

TOTAL: 66 cr

Associate of Applied Science Degree:
Civil Engineering Technology
(4 Semesters)

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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>CET 0110</td>
<td>Applied Mathematics I</td>
<td>4 cr</td>
<td></td>
</tr>
<tr>
<td>CET 0111/GEMT 1111</td>
<td>Drawing with CAD</td>
<td>3 cr</td>
<td></td>
</tr>
<tr>
<td>CET 0112/GEMT 1112</td>
<td>Beginning Surveying</td>
<td>5 cr</td>
<td></td>
</tr>
<tr>
<td>CET 0115</td>
<td>Materials Testing and Specifications I</td>
<td>2 cr</td>
<td></td>
</tr>
<tr>
<td>CET 0120</td>
<td>Applied Mathematics II</td>
<td>4 cr</td>
<td></td>
</tr>
<tr>
<td>CET 0121/GEMT 1121</td>
<td>Civil Engineering Technology Drafting</td>
<td>3 cr</td>
<td></td>
</tr>
<tr>
<td>CET 0122/GEMT 1122</td>
<td>Intermediate Surveying</td>
<td>5 cr</td>
<td></td>
</tr>
<tr>
<td>CET 0125</td>
<td>Materials Testing and Specifications II</td>
<td>2 cr</td>
<td></td>
</tr>
<tr>
<td>CET 0211</td>
<td>Utility Design and Construction</td>
<td>3 cr</td>
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<tr>
<td>CET 0215</td>
<td>Materials Testing and Specifications III</td>
<td>3 cr</td>
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<tr>
<td>CET 0216/GEMT 2216</td>
<td>Route Survey and Design</td>
<td>6 cr</td>
<td></td>
</tr>
<tr>
<td>CET 0217</td>
<td>State Plane Coordinates</td>
<td>4 cr</td>
<td></td>
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<tr>
<td>CET 0220</td>
<td>Engineering Mechanics</td>
<td>3 cr</td>
<td></td>
</tr>
<tr>
<td>CET 0225</td>
<td>Materials Testing and Specifications IV</td>
<td>3 cr</td>
<td></td>
</tr>
<tr>
<td>CET 0226/GEMT 2226</td>
<td>Construction Surveying</td>
<td>6 cr</td>
<td></td>
</tr>
<tr>
<td>CET 0227</td>
<td>Land Surveying Practices</td>
<td>4 cr</td>
<td></td>
</tr>
</tbody>
</table>

CET Courses

Based on keyboarding skills, students may be required to take a 1 credit Keyboarding class in order to meet the competencies of the program.

CET 0110 Applied Mathematics I 4 credits. 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 credits. 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 GEMT 1111. F

CET 0112 Beginning Surveying 5 credits. 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 credits. Use of materials testing equipment to conduct test procedures and to verify specifications for soils and aggregates used in construction. Prepares student for WAQTC aggregate qualifications examination. F

CET 0120 Applied Mathematics II 4 credits. A continuation of CET 0110. Applied Mathematics I, studying oblique triangle trigonometry and vectors; radians, arc length, and rotations; exponents and radicals; quadratic 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 credits. 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. Computer-aided drafting (CAD) is used for drawings. Equivalent to GEMT 1121. PREREQ: CET 0111/GEMT 1111. S

CET 0122 Intermediate Surveying 5 credits. Study of land, traverses and closures, bearings, coordinates, construction surveying and stakeout. Control for surveys, topographic 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 credits. Concrete testing procedures are conducted and concrete specifications are verified. Prepares student for WAQTC concrete qualifications examination. PREREQ: CET 0115. S

CET 0211 Utility Design and Construction 3 credits. 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 0210. COREQ: CET 0216 and CET 0217. F

CET 0215 Materials Testing and Specifications III 3 credits. Soils testing procedures are conducted to verify soils specifications, culminating in a soils survey/profile drawing. Radiation and safety training using the nuclear densometer. Field trips to construction sites to collect soil samples for testing. Prepares students for WAQTC embankment and base in-place density qualification examinations. PREREQ: CET 0215. COREQ: CET 0216 and CET 0217. F

CET 0216 Route Survey and Design 6 credits. 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 0212/GEMT 1122. F

CET 0217 State Plane Coordinates 4 credits. Study of Idaho 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 0212/GEMT 1122. F

CET 0220 Engineering Mechanics 3 credits. Non-calculus course relating to the principles of plane statics and its application to engineering problems. Includes such topics as force systems, equilibrium condition, force analysis of structures. Includes study of stresses and strains, beam section properties (physical and mechanical). Computation of bending and shear forces and design of structural beams will be included. PREREQ: CET 0210. S

CET 0225 Materials Testing and Specifications IV 3 credits. 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 0227 Land Surveying Practices 4 credits. 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 0296 Independent Study 1-8 credits. 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 instructor. D

CET 0298 Special Topics 1-8 credits. 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

Computer Aided Design Drafting Technology

(8 sessions)

Coordinator and Instructor: Churba
Advanced Instructor: Holmes
Instructor: Hansen

One Advanced Technical Certificate, one Associate of Applied Science, and one Bachelor of Applied Science 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. This 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.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.

Advanced Technical Certificate:
Computer Aided Design Drafting

Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CADD 0101</td>
<td>Drafting Technology I</td>
<td>3</td>
</tr>
<tr>
<td>CADD 0102</td>
<td>Drafting Technology II</td>
<td>3</td>
</tr>
<tr>
<td>CADD 0109</td>
<td>Drafting Applied Mathematics I</td>
<td>3</td>
</tr>
<tr>
<td>CADD 0111</td>
<td>Drafting Technology II</td>
<td>2</td>
</tr>
<tr>
<td>CADD 0112</td>
<td>Drafting Technology Laboratory I</td>
<td>3</td>
</tr>
<tr>
<td>CADD 0113</td>
<td>Drafting Technology Laboratory II</td>
<td>3</td>
</tr>
<tr>
<td>CADD 0121</td>
<td>Mechanical Drafting Technology</td>
<td>1</td>
</tr>
<tr>
<td>CADD 0122</td>
<td>Mechanical Drafting Technology Laboratory I</td>
<td>3</td>
</tr>
<tr>
<td>CADD 0137</td>
<td>Mechanical Drafting Technology</td>
<td>1</td>
</tr>
<tr>
<td>CADD 0138</td>
<td>Mechanical Drafting Technology Laboratory I</td>
<td>3</td>
</tr>
</tbody>
</table>
## Associate of Applied Science Degree: Computer Aided Design Drafting Technology

### 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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CADD 0101</td>
<td>Drafting Technology Theory I 2 credits. Drafting Technology theory. Includes drafting fundamentals and theory. Includes lettering, linework, spatial visualization and multiview drawings. COREQ: CADD 0102 and CADD 0109. F</td>
<td>2</td>
</tr>
<tr>
<td>CADD 0102</td>
<td>Drafting Technology Laboratory I 3 credits. Apply Drafting Technology Theory I using drawing boards, drafting instruments, and CAD systems. COREQ: CADD 0101. F</td>
<td>3</td>
</tr>
<tr>
<td>CADD 0109</td>
<td>Drafting Applied Mathematics I 2 credits. 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</td>
<td>2</td>
</tr>
<tr>
<td>CADD 0111</td>
<td>Drafting Technology Theory II 2 credits. Additional drafting fundamentals and theory. Includes sections, auxiliaries and dimensioning. PREREQ: CADD 0101. COREQ: CADD 1112 and CADD 0119. F</td>
<td>2</td>
</tr>
<tr>
<td>CADD 0112</td>
<td>Mechanical Drafting Technology Laboratory I 3 credits. Apply Mechanical Drafting Technology Theory I including welding symbology, gearings, threads and fasteners, manufacturing processes, axonometric projection, and geometric dimensioning and tolerancing. PREREQ: CADD 0111. COREQ: CADD 0122 and CADD 0119. F</td>
<td>3</td>
</tr>
<tr>
<td>CADD 0121</td>
<td>Mechanical Drafting Theory I 2 credits. Drafting theory of welding symbology, gearings, threads and fasteners, manufacturing processes, axonometric projection, and geometric dimensioning and tolerancing using CAD systems. PREREQ: CADD 0112. COREQ: CADD 0121. F</td>
<td>2</td>
</tr>
<tr>
<td>CADD 0129</td>
<td>Drafting Applied Mathematics III 2 credits. Analytic geometry applications related to design drafting explored. PREREQ: CADD 0119. F</td>
<td>2</td>
</tr>
<tr>
<td>CADD 0137</td>
<td>Mechanical Drafting Technology Theory II 2 credits. Additional drafting fundamentals and theory. Includes sections, auxiliaries and dimensioning. PREREQ: CADD 0101. COREQ: CADD 0122 and CADD 0119. F</td>
<td>2</td>
</tr>
<tr>
<td>CADD 0138</td>
<td>Mechanical Drafting Technology Laboratory II 3 credits. Apply Mechanical Drafting Technology Theory I including welding symbology, gearings, threads and fasteners, manufacturing processes, axonometric projection, and geometric dimensioning and tolerancing using CAD systems. PREREQ: CADD 0112. COREQ: CADD 0121. F</td>
<td>3</td>
</tr>
<tr>
<td>CADD 0207</td>
<td>Architectural Design Theory I 2 credits. 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. F</td>
<td>2</td>
</tr>
<tr>
<td>CADD 0208</td>
<td>Architectural Design Theory I 3 credits. Apply Mechanically Drafting Technology Theory I including working drawings and 3D modeling using CAD systems with emphasis on drafting 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. F</td>
<td>3</td>
</tr>
<tr>
<td>CADD 0237</td>
<td>Parametric Modeling Theory 2 credits. Advanced instruction in parametric 3D modeling using CAD systems. PREREQ: CADD 0137. COREQ: CADD 0238. F</td>
<td>2</td>
</tr>
<tr>
<td>CADD 0238</td>
<td>Parametric Modeling Laboratory 3 credits. Application of Parametric Modeling Theory to create parametric 3D models using CAD systems. PREREQ: CADD 0138. COREQ: 0237. F</td>
<td>3</td>
</tr>
<tr>
<td>CADD 0295</td>
<td>Drafting Applied Mathematics IV 2 credits. Basic drafting fundamentals and theory. Includes lettering, linework, spatial visualization and multiview drawings. COREQ: CADD 0102 and CADD 0109. F</td>
<td>2</td>
</tr>
<tr>
<td>CADD 0297</td>
<td>Architectural Design Theory I 2 credits. Fundamentals of residential architectural design, floor plans, elevations, roof layout, aesthetic design, site plans, Universal Design, and an introduction to basic electrical drafting theory. PREREQ: CADD 0121. COREQ: CADD 0208 and CADD 0209. F</td>
<td>2</td>
</tr>
<tr>
<td>CADD 0208</td>
<td>Architectural Design Laboratory I 3 credits. 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</td>
<td>3</td>
</tr>
<tr>
<td>CADD 0227</td>
<td>Structural Steel Drafting Theory 2 credits. Concepts of structural steel drafting and detailing including erection drawings and detailing of steel members. PREREQ: CADD 0217. COREQ: CADD 0228. F</td>
<td>2</td>
</tr>
<tr>
<td>CADD 0228</td>
<td>Structural Steel Drafting Theory 3 credits. 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. F</td>
<td>3</td>
</tr>
<tr>
<td>CADD 0237</td>
<td>Parametric Modeling Theory 2 credits. Advanced instruction in parametric 3D modeling using CAD systems. PREREQ: CADD 0137. COREQ: CADD 0238. F</td>
<td>2</td>
</tr>
<tr>
<td>CADD 0238</td>
<td>Parametric Modeling Laboratory 3 credits. Application of Parametric Modeling Theory to create parametric 3D models using CAD systems. PREREQ: CADD 0138. COREQ: 0237. F</td>
<td>3</td>
</tr>
<tr>
<td>CADD 0295</td>
<td>CAD Internship 1-16 credits. Industrial work experience via a cooperative program for selected students. PREREQ: CADD major or permission of coordinator. F, S, Su</td>
<td>1-16</td>
</tr>
</tbody>
</table>
Computerized Machining Technology

One 3-session option, one 8-session option, two 9-session options

Coordinator/Master Instructor: Clay Instructor: Moore

One Postsecondary Technical Certificate, two Advanced Technical Certificates, one Associate of Applied Science Degree, and one Bachelor of Applied Technology 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/booktool.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.

Post-Secondary Technical Certificate: CNC Programmer

3 Sessions

Requires machining experience; a student needs instructor permission to enroll in this option.

Advanced Technical Certificate: CNC Operator

8 Sessions

<table>
<thead>
<tr>
<th>Required Courses:</th>
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<tr>
<td>MACH 0110</td>
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<tr>
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<tr>
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Advanced Technical Certificate: Machining Technology

9 Sessions

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<td>MACH 0272</td>
<td>CNC Math I 2 cr</td>
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<tr>
<td>MACH 0275</td>
<td>CAD/CAM II 2 cr</td>
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Associate of Applied Science Degree: Computerized Machining Technology

9 Sessions

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.

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<th>Required Courses:</th>
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<tr>
<td>MACH 0110</td>
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<td>MACH 0111</td>
<td>Engine Lathe Theory I 2 cr</td>
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<td>MACH 0112</td>
<td>Machine Math I 2 cr</td>
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<tr>
<td>MACH 0130</td>
<td>Engine Lathe Practice II 5 cr</td>
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<tr>
<td>MACH 0136</td>
<td>Applied Machining Geometry and Trigonometry 2 cr</td>
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<tr>
<td>MACH 0140</td>
<td>Milling Practice II 6 cr</td>
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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.

Based on keyboarding skills, students may be required to take a 1 credit keyboarding class in order to meet the competencies of the program.
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.

**MACH Courses**

**MACH 0110 Engine Lathe Practice I 5 credits.** Basic engine lathe cutting operations of turning, facing, boring, tapping and threading as required when producing machine parts. COREQ: MACH 0111. F, S

**MACH 0111 Engine Lathe Theory 12 credits.** 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 0112 Machine Math I 2 credits.** Basic math principles of fractional and decimal numbers as related to machine shop measuring, blueprint reading, taper turning, threading and cutting speeds and feeds. Course covers basic algebra. F, S

**MACH 0120 Milling Practice I 5 credits.** Basic milling cutting operations of end milling, fly cutting, drilling and boring performed on the vertical mill. Also includes surface grinder, and benchworking practices as scheduling permits. COREQ: MACH 0121. F, S

**MACH 0121 Milling Theory I 2 credits.** 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 credits.** 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 credits.** A continuation of MACH 110 machining more advanced lathe projects. PREREQ: MACH 0110. F, S

**MACH 0136 Applied Machining Geometry and Trigonometry 2 credits.** More advanced math course using geometry and trigonometry required when solving threading, tapping, chords, arcs, areas, and milling speed/feed problems in a machine shop environment. PREREQ: MACH 0112. F, S

**MACH 0140 Milling Practice II 6 credits.** A continuation of MACH 120 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 credits.** A hands-on lab utilizing computers for programming CNC machining centers for production purposes. COREQ: MACH 0221. Su

**MACH 0221 CAD and CAM I Theory 3 credits.** Introductory theory course in the utilization of CAD/CAM systems. COREQ: MACH 0220. Su

**MACH 0225 Interpreting Technical Data 2 credits.** Study of tables, charts, formulas, thread calculations, and related information as required of a machinist working in industry. Su

**MACH 0230 CNC Mill Operations 8 credits.** 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. F, S

**MACH 0240 CNC Lathe Operations 8 credits.** Set-up and operation of computer numerically controlled lathes. Set the tooling and use pre-written programs to produce CNC parts. PREREQ: MACH 0261. F, S

**MACH 0250 Advanced Machine Practice I 7 credits.** Advanced machining practices on engine lathes, grinders, drill inspection, and metal layout. PREREQ: MACH 0140. F, S

**MACH 0261 CNC Introduction to Theory 2 credits.** 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 credits.** 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 credits.** 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 credits.** 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 credits.** 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 credits.** 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 credits.** An advanced course in the programming, set-up and operations of computer numerically controlled machine tools and accessories. MACH 0281 is a continuation of MACH 0271. PREREQ: MACH 0271. COREQ: MACH 0290. F, S

**MACH 0290 CNC Machining Practice II 6 credits.** 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. PREREQ: MACH 0270. COREQ: MACH 0281. F, S

**MACH 0296 Independent Study 1-8 credits.** 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 instructor. D

**MACH 0298 Special Topics 1-8 credits.** 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**

(3½ Semesters and/or ½ Session)

Coordinator and Advanced Instructor: Fitch
Advanced Instructors: Fuger, Jackson, Wilde

Two certificates 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.shtml.

This program requires students to achieve certain grades in order to advance each semester. Specific information is avail-
able in the program’s student handbook. 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.

Post-Secondary Technical Certificate: Nail Technology
(½ Semester—Summer Only)
Required Courses:
Successful completion is required to be eligible to take the State Board Examination.

COSM 0150 Principles and Practices of Nail Technology 11 cr

Technical Certificate: Cosmetology
(3½ Semesters)
Required Courses:
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 cr
COSM 0117 Fundamental Principles and Practices of Cosmetology I 8 cr
COSM 0126 Fundamental Principles and Practices of Cosmetology II 8 credits. In a combination of lab, live work, and classroom: work, students will perform services on clientele, learn retail, customer relations, scheduling appointments, and dispense duties pertaining to all phases of cosmetology. PREREQ: COSM 0117. COREQ: COSM 0127. F, S
COSM 0127 Fundamental Principles and Practices of Cosmetology II 8 credits. In a combination of lab, live work, and classroom: work, students will perform services on clientele, learn retail, customer relations, scheduling appointments, and dispense duties pertaining to all phases of cosmetology. PREREQ: COSM 0117. COREQ: COSM 0126. F, S
COSM 0150 Principles and Practices of Nail Technology I 11 credits. 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 credits. 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 credits. 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 credits. Advanced techniques and concepts of cosmetology, including salon development, the salon business, and state laws and regulations. PREREQ: COSM 0156. COREQ: COSM 0237. F, S
COSM 0238 Cosmetology Instructor Training 14 credits. 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 Objectives 1, 2, and 6; two years of work experience as a licensed cosmetologist; and permission of program coordinator. Graded S/U. D
COSM 0279 Seminar 1-16 credits. This course is designed as a review for 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. S
COSM 0296 Independent Study 1-8 credits. 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 instructor. D
COSM 0298 Special Topics 1-8 credits. 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

Culinary Arts Technology
Acting Coordinator and Instructor: Callanan
Instructor: Peters
This program is being discontinued and new applications are not being accepted.

CUAR Courses
CUAR 0110 Culinary Foundations I 13 credits. Introduction to the food service industry through lectures and demonstrations, including principles of cooking and presentation, tools and equipment, knife skills, flavors and flavoring, stocks and sauces, soups, vegetables, potatoes, grains, pasta, and dairy products. COREQ: CUAR 0111. F, S
CUAR 0115 Applied Sanitation 2 credits. A study of sanitary regulation practices for the proper preparation and service of food. Students learn how to maintain compliance with the FDA Food Code and Unicodes through the use of the Hazard Analysis Critical Control Point (HACCP) approach. F
CUAR 0117 Dining Room, Banquet, & Catering Operations 2 credits. This course demonstrates methods of managing service in an a la carte restaurant and how to manage banquet and catering functions. F
CUAR 0119 Culinary Weights and Measures 1 credit. Hands-on application of basic math principles that are used in food service operations. F
CUAR 0120 Culinary Foundations II 3 credits. Builds on concepts taught in CUAR 0110. Through lecture and demonstration, introduces principles of meat cookery, fish and shellfish, eggs, vegetarian cooking, salad and salad dressing, fruits, sandwiches, charcuterie, hors d’oeuvre and canapés. COREQ: CUAR 0121. F, S
CUAR 0121 Culinary Skill Development II 7 credits. Continues to advance the student’s baking and food preparation skills through the different station rotations. COREQ: CUAR 0120. F, S
CUAR 0130 Culinary Foundations III 2 credits. Builds on concepts taught in CUAR 0120. Through lectures and demonstrations, introduces principles of the bake shop, including quick breads, yeast breads, pies, pastries, cookies, custards, cakes, and frostings. COREQ: CUAR 0131. Su

CUAR 0131 Culinary Skill Development III 3 credits. Continues to advance the student’s baking and food preparation skills through the different station rotations. COREQ: CUAR 0130. Su

CUAR 0135 Menu Mechanics 2 credits. This course prepares students with the techniques and knowledge to develop menus that are compatible with various types of food operations. All aspects of menu layout and development are studied. Su

CUAR 0137 Nutrition in Food Service Operations 2 credits. This course addresses the fundamental nutritional concepts for food service professionals. Su

CUAR 0198 Industry Practicum 1-8 credits. In this course students may be directed to work in one or more sites in the culinary or related industry to pick up additional job experience. PREREQ: Permission of instructor.

CUAR 0211 Entree and Sauteing Preparation 3 credits. Advanced hands-on experience in all facets of cookery and sauce preparation. Emphasis on presentation, center of plate and advanced food preparations as well as cooking methods. F

CUAR 0212 Advanced Garde-Manger and Appetizers 3 credits. Advanced hands-on preparations of salads, cold sauces, appetizers, and garnishes and their applications. Emphasis on color, texture, and temperature in preparation and presentation. F

CUAR 0214 Beverage Operations 3 credits. Practical experience and approaches in beverage operations and service. Service and storage of beverages in food service operations. F

CUAR 0221 Culinary Management 3 credits. The principles of management and supervision within a food service kitchen are studied. The importance of menu planning, cost control, purchasing, catering, and management functions is covered. S

CUAR 0222 Purchasing Controls, 3 credits. Review of methods used to budget and control costs. The course demonstrates how spreadsheet software facilitates the tasks of the manager in budgeting and assessing financial performance. PREREQ: Admitted to CUAR program or permission of instructor. F

CUAR 0223 Advanced Baking and Desserts 3 credits. Advanced hands-on preparation of baked goods, pastries and desserts will be given to the student in both theory and practice. S

CUAR 0224 Food Service Operations 3 credits. Students learn principles and practices to increase profits by maximizing service, efficiency, productivity, technology, and how to build business through effective marketing strategies. S

CUAR 0250 Career Internship 3 credits. This course is designed to provide students the opportunity to gain practical experience. Training plans are utilized to ensure maximum training opportunities for the student. F, S, Su

CUAR 0296 Independent Study 1-8 credits. 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 instructor. D

CUAR 0298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter graded. PREREQ: Permission of instructor. D

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**Advanced Technical Certificate: Diesel Technology**

(3 Semesters)

**Required Courses:**

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<tr>
<td>DESL 0107</td>
<td>Basic Diesel</td>
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<tr>
<td>DESL 0109</td>
<td>Diesel Engine Fuel Systems</td>
<td>2 cr</td>
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<td>DESL 0113</td>
<td>Diesel Hydraulics I</td>
<td>2 cr</td>
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<td>DESL 0115</td>
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<tr>
<td>DESL 0117</td>
<td>Heavy Duty Brake Systems</td>
<td>2 cr</td>
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<td>DESL 0125</td>
<td>Heavy Duty Power Trains</td>
<td>8 cr</td>
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<tr>
<td>DESL 0184</td>
<td>Diesel Engine Technology</td>
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<td>DESL 0186</td>
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<td>DESL 0190</td>
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<td>DESL 0215</td>
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<td>DESL 0217</td>
<td>Advanced Engine</td>
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<tr>
<td>DESL 0231</td>
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<tr>
<td>DESL 0232</td>
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<td>TGE 0158</td>
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**Total:** 56 cr

**General Education Requirement:**

COMM 1101 Principles of Speech (3 cr)

(Contributes to AAS English Communication Requirement and satisfies a General Education Requirement)

**E elective Courses:**

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<td>MACH 0105</td>
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<td>WELD 0105</td>
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**Advanced Technical Certificate: On-Site Power Generation Technology**

(4 Semesters)

**Required Courses:**

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<tr>
<td>DESL 0107</td>
<td>Diesel Engine</td>
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<tr>
<td>DESL 0109</td>
<td>Diesel Engine Fuel Systems</td>
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<td>DESL 0113</td>
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<tr>
<td>DESL 0115</td>
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<tr>
<td>DESL 0117</td>
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<td>DESL 0184</td>
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<td>DESL 0207</td>
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<td>DESL 0215</td>
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<td>DESL 0217</td>
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<td>4 cr</td>
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<tr>
<td>DESL 0231</td>
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</tr>
<tr>
<td>DESL 0232</td>
<td>Internship Capstone Class</td>
<td>8 cr</td>
</tr>
<tr>
<td>DESL 0241</td>
<td>On-Site Power Generation Technology</td>
<td>8 cr</td>
</tr>
</tbody>
</table>

**Total:** 64 cr

### Diesel/On-Site Power Generation Technology

**3 to 5 Semesters**

**Program Coordinator and Master Instructor:** Bullock

**Senior Instructor:** Dixon

**Advanced Instructors:** Holmes, Schwope

**Instructor:** Anderson

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/dieseltechnology.shtml
Required Courses:
DESL 0101 Introduction to Diesel Technology 2 cr
DESL 0107 Basic Diesel Electrical Systems 2 cr
DESL 0109 Cab Climate Control 2 cr
DESL 0113 Diesel Fuel Systems 2 cr
DESL 0115 Diesel Hydraulics I 2 cr
DESL 0117 Heavy Duty Brake Systems 2 cr
DESL 0125 Heavy Duty Power Trains 8 cr
DESL 0184 Diesel Engine Technology 5 cr
DESL 0186 Diesel Engine Electrical Systems 4 cr
DESL 0190 Diesel Engine Emission Systems 1 cr
DESL 0207 Advanced Diesel Electrical Systems 4 cr
DESL 0215 Advanced Hydraulics 4 cr
DESL 0217 Advanced Engine Electronics Systems 4 cr
DESL 0231 Live Work Capstone Class 8 cr
OR
DESL 0232 Internship Capstone Class 8 cr
COMM 1101 Principles of Speech 3 cr

Total: 79 cr

DESL Courses
DESL 0101 Introduction to Diesel Technology 2 credits. Review of safe practices and procedures in the diesel power industry. Theory, practice, and application will be taught in maintenance and use of lifting equipment, hand tools, power hand tools, fasteners, precision measuring devices, soldering, and safe use of welding/cutting equipment. D
DESL 0107 Basic Diesel Electrical Systems 2 credits. Theory, application, and practice in basic electricity and electronic principles to include wiring circuits, charging, and starting systems found in diesel powered vehicles. Emphasis will be given to diagnosis of electrical systems and use of diagnostic equipment. D
DESL 0109 Cab Climate Control 2 credits. Fundamentals of mobile air conditioning and heating systems including electronic climate controls and principles, basic refrigeration concepts, evacuation and recharging, and repair and testing of systems. Students will become familiar with environmental regulations and proper disposal of refrigerants. D
DESL 0113 Diesel Fuel Systems 2 credits. Introduces diesel fuel systems, mechanical fuel pumps, governors, air-to-fuel ratios, and the chemistry of combustion. Classroom theory will be followed by practical lab application including setting valve lash, adjusting injector settings, and other tune-up related procedures to increase efficiency and decrease pollution. D
DESL 0115 Diesel Hydraulics I 2 credits. Provides an introduction to diesel hydraulics and their operation. Basic principles of flow, pressure, and conversion of fluid power into mechanical power; relationship of Pascal’s law and relating it to the fundamentals of hydraulic principles; and identification of the components in a basic hydraulic circuit and variations of those circuits used in modern hydraulic systems. D
DESL 0117 Heavy Duty Brake Systems 2

Credits. Provides an introduction to air and hydraulic brakes, disassembly, hydraulic drum and disc brake maintenance, safe operation of each system, pad and shoe replacement, drum and rotor turning, and anti-lock braking systems. Instruction will cover brake system setup, safety, and final brake system adjustment. D
DESL 0125 Heavy Duty Power Trains 8 credits. Provides training in heavy duty power train components from engine flywheel through the final drives on heavy duty truck, construction equipment, and farm implements. Practical theory and application to perform repair procedures, troubleshooting, diagnosing, failure analysis, preventative maintenance, and adjustments of heavy-duty power trains. Manually operated, power-shift actuated, electronic controlled transmissions, differentials, and planetary final drives will be covered. D
DESL 0184 Diesel Engine Technology 5 credits. Instruction in diesel power theory fundamentals and operation of diesel engines in mining, agriculture, and trucking applications. Classroom theory is combined with laboratory sections consisting of overhaul procedures, repair, diagnostic testing, and final adjustment of components or systems. D
DESL 0186 Diesel Engine Electrical Systems 2 credits. Provides instruction in theory and application of computerized engine management systems, understanding the relationship of electronic components to overall engine performance, and employ diagnostic equipment to test and monitor engine systems. COREQ: DESL 0184, DESL 0190. D
DESL 0190 Diesel Engine Emission Systems 1 credit. 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. D
DESL 0207 Advanced Diesel Electrical Systems 4 credits. 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 credits. 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, DESL 0207, and DESL 0215. PREREQ: DESL 0101 and DESL 0115. D

Associate of Applied Science Degree: Diesel Technology (4 Semesters)

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:
DESL 0101 Introduction to Diesel Technology 2 cr
DESL 0107 Basic Diesel Electrical Systems 2 cr
DESL 0109 Cab Climate Control 2 cr
DESL 0113 Diesel Fuel Systems 2 cr
DESL 0115 Diesel Hydraulics I 2 cr
DESL 0117 Heavy Duty Brake Systems 2 cr
DESL 0125 Heavy Duty Power Trains 8 cr
DESL 0184 Diesel Engine Technology 5 cr
DESL 0186 Diesel Engine Electrical Systems 4 cr
DESL 0190 Diesel Engine Emission Systems 1 cr
DESL 0207 Advanced Diesel Electrical Systems 4 cr
DESL 0215 Advanced Hydraulics 4 cr
DESL 0217 Advanced Engine Electronics Systems 4 cr
DESL 0231 Live Work Capstone Class 8 cr
OR
DESL 0232 Internship Capstone Class 8 cr
COMM 1101 Principles of Speech 3 cr
(contains to AAS English/Communication Requirement; satisfies a General Education requirement)

Total: 66 cr

DESL Courses
DESL 0101 Introduction to Diesel Technology 2 credits. Review of safe practices and procedures in the diesel power industry. Theory, practice, and application will be taught in maintenance and use of lifting equipment, hand tools, power hand tools, fasteners, precision measuring devices, soldering, and safe use of welding/cutting equipment. D
DESL 0107 Basic Diesel Electrical Systems 2 credits. Theory, application, and practice in basic electricity and electronic principles to include wiring circuits, charging, and starting systems found in diesel powered vehicles. Emphasis will be given to diagnosis of electrical systems and use of diagnostic equipment. D
DESL 0109 Cab Climate Control 2 credits. Fundamentals of mobile air conditioning and heating systems including electronic climate controls and principles, basic refrigeration concepts, evacuation and recharging, and repair and testing of systems. Students will become familiar with environmental regulations and proper disposal of refrigerants. D
DESL 0113 Diesel Fuel Systems 2 credits. Introduces diesel fuel systems, mechanical fuel pumps, governors, air-to-fuel ratios, and the chemistry of combustion. Classroom theory will be followed by practical lab application including setting valve lash, adjusting injector settings, and other tune-up related procedures to increase efficiency and decrease pollution. D
DESL 0115 Diesel Hydraulics I 2 credits. Provides an introduction to diesel hydraulics and their operation. Basic principles of flow, pressure, and conversion of fluid power into mechanical power; relationship of Pascal’s law and relating it to the fundamentals of hydraulic principles; and identification of the components in a basic hydraulic circuit and variations of those circuits used in modern hydraulic systems. D
DESL 0117 Heavy Duty Brake Systems 2

Credits. Provides an introduction to air and hydraulic brakes, disassembly, hydraulic drum and disc brake maintenance, safe operation of each system, pad and shoe replacement, drum and rotor turning, and anti-lock braking systems. Instruction will cover brake system setup, safety, and final brake system adjustment. D
DESL 0125 Heavy Duty Power Trains 8 credits. Provides training in heavy duty power train components from engine flywheel through the final drives on heavy duty truck, construction equipment, and farm implements. Practical theory and application to perform repair procedures, troubleshooting, diagnosing, failure analysis, preventative maintenance, and adjustments of heavy-duty power trains. Manually operated, power-shift actuated, electronic controlled transmissions, differentials, and planetary final drives will be covered. D
DESL 0184 Diesel Engine Technology 5 credits. Instruction in diesel power theory fundamentals and operation of diesel engines in mining, agriculture, and trucking applications. Classroom theory is combined with laboratory sections consisting of overhaul procedures, repair, diagnostic testing, and final adjustment of components or systems. D
DESL 0186 Diesel Engine Electrical Systems 2 credits. Provides instruction in theory and application of computerized engine management systems, understanding the relationship of electronic components to overall engine performance, and employ diagnostic equipment to test and monitor engine systems. COREQ: DESL 0184, DESL 0190. D
DESL 0190 Diesel Engine Emission Systems 1 credit. 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. D
DESL 0207 Advanced Diesel Electrical Systems 4 credits. 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 credits. 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, DESL 0207, and DESL 0215. PREREQ: DESL 0101 and DESL 0115. D

Associate of Applied Science Degree: On-Site Power Generation Technology (5 Semesters)

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:
DESL 0243 On-Site Power Generation I 8 cr
TGE 0135 Workplace Relations 3 cr
TGE 0158 Employment Strategies 2 cr

General Education Requirement:
COMM 1101 Principles of Speech 3 cr
(contains to AAS English/Communication Requirement; satisfies a General Education requirement)

Total: 72 cr

Elective Courses:
DESL 0298 Special Topics 1-16 cr
MACH 0105 Machining Practices 1-4 cr
WELD 0105 Welding 1-4 cr

College of Technology
DESL 0217 Advanced Engine Electronics Systems 4 credits. 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. Coreqs. DESL 0109, DESL 0113, DESL 0125, DESL 0184, DESL 0186, and DESL 0190. D

DESL 0231 Live Work Capstone Class 8 credits. Synthesis of all prior learning. Provides opportunities for diagnosis, trouble-shooting, 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 credits. A continuation of DESL 0241. F, S

DESL 0296 Independent Study 1-8 credits. 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 instructor. D

DESL 0298 Special Topics 1-8 credits. 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

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.

All courses in the major and ENGL (English) 1101 and 1102, when required, must be completed with a grade of ‘C’ or better. Students must maintain a 2.0 GPA in all courses to graduate.

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.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.

### Post-Secondary Technical Certificate: Family Child Care

Program offering of this option will depend upon sufficient student interest and availability of instructor.

**Required Courses:**
- CHLD 0160 Professionalism in Family Child Care 1 cr
- CHLD 0161 Child Health and Safety 1 cr
- CHLD 0162 Environments in Family Child Care 1 cr
- CHLD 0164 Early Childhood Social and Emotional Development 2 cr
- CHLD 0166 Guidance in Early Childhood Education 1 cr
- CHLD 0168 Early Childhood Physical and Cognitive Development 2 cr
- CHLD 0170 Fostering Creativity 1 cr
- CHLD 0172 Curriculum Implementation 2 cr
- CHLD 0174 Parent Involvement and Program Management 1 cr

**TOTAL:** 12 cr

Students who have earned a Post-Secondary Technical Certificate (12 credits) need the following course to build on these credits toward the Technical Certificate (32 credits):

- CHLD 0113 Child Care and Education Practicum 20 cr*

*Students interested in this upgrade should contact program faculty prior to registering for this course.

### Technical Certificate: Early Childhood Care and Education (2 Semesters Daytime or 4 semesters Evening)

**Required Courses:**
- CHLD 0105 Introduction to Early Childhood Care and Education 3 cr
- CHLD 0110 Child Health, Safety, Nutrition, and Environments 4 cr
- CHLD 0120 Social and Emotional Development in Early Childhood Care and Education 6 cr
- CHLD 0125 Guidance in Early Childhood Care and Education 3 cr
- CHLD 0130 Physical and Cognitive Development in Early Childhood Care and Education 6 cr
- CHLD 0135 Fostering Creativity 3 cr
- CHLD 0141 Family-Centered Care and Program Management in Early Childhood Care and Education 3 cr
- CHLD 0151 Curriculum Planning and Implementation in Early Childhood Care and Education 4 cr
- ENGL 1101 English Composition (contributes to AAS Communication Requirement) 3 cr

**TOTAL:** 35 cr

### Associate of Applied Science Degree: Early Childhood Care and Education (4 Semesters)

**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:**
- BT 0170 Introduction to Computers 3 cr
- CHLD 0105 Introduction to Early Childhood Care and Education 3 cr
- CHLD 0110 Child Health, Safety, Nutrition, and Environments 4 cr
- CHLD 0120 Social and Emotional Development in Early Childhood Care and Education 6 cr
- CHLD 0125 Guidance in Early Childhood Care and Education 3 cr
- CHLD 0130 Physical and Cognitive Development in Early Childhood Care and Education 6 cr
- CHLD 0135 Fostering Creativity 3 cr
- CHLD 0141 Family-Centered Care and Program Management in Early Childhood Care and Education 3 cr
- CHLD 0151 Curriculum Planning and Implementation in Early Childhood Care and Education 4 cr
- CHLD 0210 Advanced Topics in Early Childhood Care and Education 3 cr
- CHLD 0215 Children with Exceptionalities 2 cr
- CHLD 0220 Administration and Program Management in Early Childhood Care and Education 3 cr
- CHLD 0250 Internship in Early Childhood Care and Education 1 cr

Early Childhood Care and Education (2 to 6 Semesters)

Coordinators and Instructors: Grimes, Koplin

One Post-Secondary Technical Certificate, one Technical Certificate, one Associate of Applied Science Degree and one Bachelor of Applied Technology Degree are available.

In addition, twelve (12) credits of Early Childhood Care and Education coursework may be articulated to the Bachelor of Arts in Early Childhood Education, offered in the College of Education.
CHLD 0105 Introduction to Early Childhood Care and Education 3 credits. 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 credits. Promoting/maintaining health and well-being of children, including health and nutritional guidelines, common childhood illnesses, maintaining safe and healthy learning environments, indoor/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 credits. 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. D

CHLD 0120 Social and Emotional Development in Early Childhood Care and Education 6 credits. 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 credits. 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 Care and Education 6 credits. 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. F, S

CHLD 0135 Fostering Creativity 3 credits. 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 credits. Relationships between families and programs. Emphasis on requisite skills and benefits for successfully establishing, supporting, and maintaining trustful, collaborative relationships between today’s diverse families, centers/schools, 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 credits. 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 credit. 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. D

CHLD 0161 Child Health and Safety in Family Child Care 1 credit. 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. D

CHLD 0162 Environments in Family Child Care 1 credit. 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. D

CHLD 0164 Early Childhood Social and Emotional Development in Family Child Care 2 credits. 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. D

CHLD 0166 Guidance in Early Childhood Education in Family Child Care 1 credit. 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. D

CHLD 0168 Early Childhood Physical and Cognitive Development in Family Child Care 2 credits. 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. D

CHLD 0170 Fostering Creativity in Family Child Care 1 credit. An introductory course which includes the values and 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. D

CHLD 0172 Curriculum Implementation in Family Child Care 2 credits. 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. D

CHLD 0174 Parent Involvement and Program Management in Family Child Care 1 credit. 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 individual instruction. D

CHLD 0210 Advanced Topics in Early Childhood Care and Education 3 credits. 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 credits. 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. PREREQ OR COREQ: ENGL 1102, BT 0170, and COMM 1101. F
Emergency Management
Coordinator and Instructor: Mikitish

One Associate of Science degree is 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, mikimich@isu.edu for more information.

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. 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 Courses (27 lower division credits)

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>EMGT 0101</td>
<td>Incident Command System</td>
<td>3 cr</td>
</tr>
<tr>
<td>EMGT 0110</td>
<td>Leadership and Influence</td>
<td>3 cr</td>
</tr>
<tr>
<td>EMGT 0121</td>
<td>Principles of Emergency Management</td>
<td>3 cr</td>
</tr>
<tr>
<td>EMGT 0122</td>
<td>Resources Management</td>
<td>3 cr</td>
</tr>
<tr>
<td>EMGT 0221</td>
<td>Management Operations</td>
<td>3 cr</td>
</tr>
<tr>
<td>EMGT 0222</td>
<td>Emergency Planning</td>
<td>3 cr</td>
</tr>
<tr>
<td>EMGT 0223</td>
<td>Mitigation</td>
<td>3 cr</td>
</tr>
<tr>
<td>EMGT 0224</td>
<td>for Emergency Managers</td>
<td>3 cr</td>
</tr>
<tr>
<td>EMGT 0225</td>
<td>Exercise Design</td>
<td>3 cr</td>
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Additional Requirement (for those with practitioner experience)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMGT 4403</td>
<td>Internship</td>
<td>3-6 cr</td>
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Emergency Management Electives (18-24 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>EMGT 3320</td>
<td>Public Administration</td>
<td>3 cr</td>
</tr>
<tr>
<td>EMGT 3321</td>
<td>and Emergency Management</td>
<td>3 cr</td>
</tr>
<tr>
<td>EMGT 3322</td>
<td>Sociology of Disaster</td>
<td>3 cr</td>
</tr>
<tr>
<td>EMGT 3323</td>
<td>Crisis Management</td>
<td>3 cr</td>
</tr>
<tr>
<td>EMGT 3324</td>
<td>Geologic Hazards</td>
<td>3 cr</td>
</tr>
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</table>

University General Education Requirements (36 credits minimum) will be met with the following recommended courses:

<table>
<thead>
<tr>
<th>Course</th>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 1101</td>
<td>Principles of Speech</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 1101</td>
<td>English Composition</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 1102</td>
<td>Critical Reading and Writing</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 1130</td>
<td>Finite Mathematics</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 1153</td>
<td>Introduction to Statistics</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL 1100, 1100L</td>
<td>Concepts Biology: Human Concerns, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>CHEM 1100</td>
<td>Architecture of Matter</td>
<td>4 cr</td>
</tr>
<tr>
<td>Fine Arts</td>
<td></td>
<td>3 cr</td>
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<tr>
<td>PHIL 1103</td>
<td>Introduction to Ethics</td>
<td>3 cr</td>
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<tr>
<td>HIST 1118</td>
<td>History and Culture</td>
<td>3 cr</td>
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<tr>
<td>AMST 2200</td>
<td>Introduction to American Studies</td>
<td>3 cr</td>
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<tr>
<td>ECON 1100</td>
<td>Economic Issues</td>
<td>3 cr</td>
</tr>
<tr>
<td>POLS 1101</td>
<td>Introduction to American Government</td>
<td>3 cr</td>
</tr>
<tr>
<td>PSYC 1101</td>
<td>Introduction to Psychology</td>
<td>3 cr</td>
</tr>
<tr>
<td>SOC 1101</td>
<td>Introduction to Sociology</td>
<td>3 cr</td>
</tr>
<tr>
<td>SOC 1102</td>
<td>Social Problems</td>
<td>3 cr</td>
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</table>

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</td>
<td>3 cr</td>
</tr>
<tr>
<td>EMGT 3302</td>
<td>Hazards Mitigation</td>
<td>3 cr</td>
</tr>
<tr>
<td>EMGT 3303</td>
<td>Disaster Response and Recovery - Advanced</td>
<td>3 cr</td>
</tr>
<tr>
<td>EMGT 3304</td>
<td>Integrated Systems in Emergency Management</td>
<td>3 cr</td>
</tr>
<tr>
<td>EMGT 3305</td>
<td>Political and Policy Basis</td>
<td>3 cr</td>
</tr>
<tr>
<td>EMGT 3306</td>
<td>Hazardous Materials Management</td>
<td>3 cr</td>
</tr>
<tr>
<td>EMGT 3307</td>
<td>Social Dimensions of Disaster</td>
<td>3 cr</td>
</tr>
<tr>
<td>EMGT 3308</td>
<td>Leading in Organizations</td>
<td>3 cr</td>
</tr>
<tr>
<td>EMGT 4401</td>
<td>Research and Analysis Methods</td>
<td>3 cr</td>
</tr>
<tr>
<td>EMGT 4402</td>
<td>Public-Private Issues</td>
<td>3 cr</td>
</tr>
<tr>
<td>EMGT 4404</td>
<td>Emergency Management Capstone</td>
<td>3 cr</td>
</tr>
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Additional Requirement (for those with practitioner experience)

<table>
<thead>
<tr>
<th>Course</th>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMGT 4403</td>
<td>Internship</td>
<td>3-6 cr</td>
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Emergency Management Electives (18-24 credits)

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>EMGT 3320</td>
<td>Public Administration</td>
<td>3 cr</td>
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<tr>
<td>EMGT 3321</td>
<td>and Emergency Management</td>
<td>3 cr</td>
</tr>
<tr>
<td>EMGT 3322</td>
<td>Sociology of Disaster</td>
<td>3 cr</td>
</tr>
<tr>
<td>EMGT 3323</td>
<td>Crisis Management</td>
<td>3 cr</td>
</tr>
<tr>
<td>EMGT 3324</td>
<td>Geologic Hazards</td>
<td>3 cr</td>
</tr>
</tbody>
</table>
EMGT 1101 Incident Command System Basic 3 credits. Overview of the Incident Command System (ICS) and its application as a component of the National Incident Management System (NIMS). Discussions and practical exercises cover the history and basic features of ICS; application of incident management to incidents involving natural and man-made disasters, including hazardous materials; leadership concepts; and incident action planning. D

EMGT 1110 Leadership and Influence 3 credits. Students will determine how to assess differences in personal values and interpersonal influence styles, and to apply situational leadership 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 credits. 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 credits. 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 credits. 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: Objective 5. D

EMGT 2222 Emergency Planning 3 credits. 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: Objective 5. D

EMGT 2223 Mitigation for Emergency Managers 3 credits. Programs 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: Objective 5. D

EMGT 2224 Disaster Response and Recovery 3 credits. 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 materials. Emphasis on the Incident Command System and its interaction with the Emergency Operations Center. PREREQ: EMGT 1121. PREREQ OR COREQ: Objective 5. D

EMGT 2225 Emergency Management Exercise Design 3 credits. 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 credits. 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 instructor. D

EMGT 2298 Special Topics 1-8 credits. 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 credits. 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 credits. 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 included 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 credits. 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 credits. 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 credits. 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 credits. 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 prospectively 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 credits. 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 credits. Through this course students will learn leadership environment, vision, concepts and theories to enhance effectiveness at all levels of leadership as 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 credits. 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 credits. Topics include: theoretical approaches to disaster research, theory of disaster response, and community sociological impact of disasters. PREREQ: SOC 1101. D

EMGT 3322 Agro-Terrorism 3 credits. 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 credits. 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 communication. D

EMGT 3324 Geologic Hazards and Emergency Management 3 credits. 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 credits. This course focuses on the identification and assessment of flood related hazards and vulnerabilities. Topics include: evaluation of the need 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 credits. Exploration of issues pertinent to international disasters, including the susceptibility of underdeveloped 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 credits. 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 credits. 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 credits. 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, networks 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 credits. 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 4401 Research and Analysis Methods in Emergency Management 3 credits. 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 credits. 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 credits. (Required for those with less than 2 years practical experience). 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

EMGT 4404 Emergency Management Capstone 3 credits. Building disaster resilient communities. Topics include: building resilience to hazards, developing skills in formulating programs to strengthen 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. Requires permission of the instructor and program director. D

EMGT 4420 Legal Issues in Emergency Management 3 credits. 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 credits. 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 roles and responsibilities, reliable communications systems, and integrating volunteers. PREREQ: EMGT 1121. D

EMGT 4422 Terrorism in Emergency Management 3 credits. 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 credits. 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 credits. 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
Energy Systems Technology and Education Center

Department Chair, ESTEC Executive Director: Beaty
Program Coordinator and Senior Instructor: Snarr
Program Coordinator and Advanced Instructor: Larson
Program Coordinators and Instructors: Fort, Perschon, Smith
Advanced Instructors: Maclure, Shepherd
Instructors: LaRose, Pitcher, Tauscher
Instructor Assistant: Williams

Two Technical Certificates and eight 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 electrical generation. 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 industry. Students learn through traditional classroom experience as well as through extensive laboratory exercises. Electrical generation technologies addressed include nuclear, coal, gas, and renewable technologies such as wind, solar thermal energy, solar photovoltaic, geothermal, biomass, and hydro.

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.

Program 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 power generation 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 factors such as grade point average and attendance. Students wishing to enter Energy Systems Instrumentation and Controls or Energy Systems Electrical Engineering Technology programs are admitted using a competitive application process based on their first semester grade point average in program classes.

Entry into the Energy Systems Instrumentation and Controls Engineering Technology, Energy Systems Electrical Engineering Technology, Instrumentation and Automation, and Industrial Controls Associate degree programs requires completion of ESET 0100, 0101, 0101L, 0102, 0102L, 0141, and 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 prefixed course and a cumulative 2.0 GPA in ESET courses to advance each semester and count toward an ESTEC degree or certificate. If the student fails to successfully complete any math, theory, or lab course, then that course must be repeated and a passing grade obtained before the student can advance in the program. The student must exit the program and make up the deficiency through advisor-approved methods. The student will then be allowed to repeat the course at the next available program opening. Specific information is available in the program’s student handbook.

The courses listed in each program will be taught in sequential blocks of instruction. Students must register concurrently for the lab course associated with each theory course. For a Program Information Packet, visit 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 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.

ESET 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 7 courses (ESET 0103 through 0106 and their associated labs) constitutes equivalency to ESET 0241, ESET 0101, and ESET 0101L.

Completion of the last four courses (0107 through ESET 0108L) constitutes equivalency to ESET 0142, ESET 0102, and ESET 0102L.

Completion of ESET 0121 through 0127 constitutes equivalency to ESET 0141, ESET 0153, and ESET 0155.

Completion of ESET 0133 through 0136 constitutes equivalency to ESET 0142, ESET 0154, and ESET 0156.

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 two Technical Certificates and five 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 and Controls Engineering Technology
- Energy Systems Mechanical Engineering Technology
- Energy Systems Nuclear Operations Technology
- Energy Systems Wind Engineering Technology

The Technical Certificate programs include:

- Energy Systems Technology
- Energy Systems Renewable Energy Technology

Technical Certificate: Energy Systems Technology
(2 semesters)

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<tr>
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<th>Credits</th>
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<td>ESET 0100</td>
<td>Engineering Technology Orientation</td>
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<tr>
<td>ESET 0101</td>
<td>Electrical Circuits I</td>
<td>5 cr</td>
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<td>ESET 0101L</td>
<td>Electrical Circuits I Laboratory</td>
<td>5 cr</td>
</tr>
<tr>
<td>ESET 0102</td>
<td>Electrical Circuits II</td>
<td>5 cr</td>
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<td>ESET 0102L</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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Total: 29 cr

Technical Certificate: Renewable Energy Technology
(2 semesters)

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>
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<tr>
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<tr>
<td>ESET 0101</td>
<td>Electrical Circuits I</td>
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<td>ESET 0101L</td>
<td>Electrical Circuits I Laboratory</td>
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<tr>
<td>ESET 0122</td>
<td>Electrical and Motor Controls</td>
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<tr>
<td>ESET 0122L</td>
<td>Electrical and Motor Control Laboratory</td>
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<tr>
<td>ESET 0150</td>
<td>Wind Energy Fundamentals</td>
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</tr>
<tr>
<td>ESET 0150L</td>
<td>Wind Energy Laboratory</td>
<td>1 cr</td>
</tr>
<tr>
<td>ESET 0160</td>
<td>Introduction to Renewable Energy</td>
<td>4 cr</td>
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<tr>
<td>ESET 0160L</td>
<td>Introduction to Renewable Energy Lab</td>
<td>2 cr</td>
</tr>
<tr>
<td>ESET 0161</td>
<td>Applications of Physics and Earth Science</td>
<td>3 cr</td>
</tr>
<tr>
<td>ESET 0162</td>
<td>Industrial Health and Safety</td>
<td>2 cr</td>
</tr>
<tr>
<td>ESET 0243</td>
<td>Fluid and Pneumatic Power</td>
<td>2 cr</td>
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<td>ESET 0243L</td>
<td>Fluid and Pneumatic Power Lab</td>
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<tr>
<td>ESET 0246</td>
<td>Materials and Metallurgy</td>
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</table>

Total: 33 cr

Associate of Applied Science Degree: Energy Systems Electrical Engineering Technology
(4 Semesters)

Objective:
Graduates will be able to: (1) solve technical problems typical of those encountered in the energy systems electrical 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.

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

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
<td>ESET 0100</td>
<td>Engineering Technology Orientation</td>
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<td>ESET 0101</td>
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<td>Electrical Circuits I Laboratory</td>
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<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 cr</td>
</tr>
<tr>
<td>ESET 0141</td>
<td>Applied Mathematics I</td>
<td>4 cr</td>
</tr>
<tr>
<td>ESET 0142</td>
<td>Applied Mathematics II</td>
<td>4 cr</td>
</tr>
<tr>
<td>ESET 0212</td>
<td>Electrical Systems Documentation and Standards</td>
<td>1 cr</td>
</tr>
<tr>
<td>ESET 0220</td>
<td>Electrical Systems Documentation and Transfer</td>
<td>2 cr</td>
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<tr>
<td>ESET 0221</td>
<td>Boiler, Reactor, and Turbine Principles</td>
<td>2 cr</td>
</tr>
<tr>
<td>ESET 0222</td>
<td>Process Control Theory</td>
<td>3 cr</td>
</tr>
<tr>
<td>ESET 0226</td>
<td>Process Control Devices Laboratory</td>
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<tr>
<td>ESET 0292</td>
<td>Electrical Engineering Technology I</td>
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<td>Electrical Engineering Technology I Lab</td>
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<tr>
<td>ESET 0293</td>
<td>Electrical Engineering Technology II</td>
<td>5 cr</td>
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<td>ESET 0293L</td>
<td>Electrical Engineering Technology II Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>CHEM 1100</td>
<td>Architecture of Matter OR PHYS 1101,1101L</td>
<td>4 cr</td>
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</tbody>
</table>

OR

PHYS 1101,1101L Elements of Physics, and Lab 4 cr (either option partially satisfies General Education Objective 5)

COMM 1101 Principles of Speech 3 cr (contributes to AAS English/Communication Requirement and satisfies General Education Objective 2)

ENGL 1101 English Composition 3 cr (contributes to AAS English/Communication Requirement)

MATH 1153 Introduction to Statistics 3 cr
Associate of Applied Science Degree: Energy Systems Instrumentation and Controls Engineering Technology

(4½ Semesters)

Objective:
Graduates will be able to: (1) solve technical problems typical of those encountered in the energy systems instrumentation and controls 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.

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:
- ESET 0100: Engineering Technology Orientation 1 cr
- ESET 0101: Electrical Circuits I 5 cr
- ESET 0101L: Electrical Circuits I Lab 5 cr
- ESET 0102: Electrical Circuits II 5 cr
- ESET 0102L: Electrical Circuits II Lab 5 cr
- ESET 0141: Applied Mathematics I 4 cr
- ESET 0142: Applied Mathematics II 4 cr
- ESET 0200: Applications of Electronic, Electrical, and Power Control Fundamentals and Safety 6 cr
- ESET 0220: Thermal Cycles and Heat Transfer 2 cr
- ESET 0221: Boiler, Reactor, and Turbine Principles 2 cr
- ESET 0290: Energy Systems Theory I 8 cr
- ESET 0290L: Energy System Laboratory I 5 cr
- ESET 0291: Energy Systems Theory II 8 cr
- ESET 0291L: Energy System Laboratory II 4 cr
- CHEM 1100: Architecture of Matter 4 cr
- PHYS 1101, 1101L: Elements of Physics, and Lab 4 cr

(4½ Semesters)

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.

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:
- ESET 0100: Engineering Technology Orientation 1 cr
- ESET 0102: Electrical Circuits I Lab 5 cr
- ESET 0102L: Electrical Circuits II Lab 5 cr
- ESET 0141: Applied Mathematics I 4 cr
- ESET 0142: Applied Mathematics II 4 cr
- ESET 0220: Thermal Cycles and Heat Transfer 2 cr
- ESET 0221: Boiler, Reactor, and Turbine Principles 2 cr
- ESET 0290: Energy Systems Theory I 8 cr
- ESET 0290L: Energy System Laboratory I 5 cr
- ESET 0291: Energy Systems Theory II 8 cr
- ESET 0291L: Energy System Laboratory II 4 cr
- CHEM 1100: Architecture of Matter 4 cr
- PHYS 1101, 1101L: Elements of Physics, and Lab 4 cr

(4½ Semesters)

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 multi-disciplinary 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.

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:
ESET 0100 Engineering Technology Orientation 1 cr
ESET 0101 Electrical Circuits I 5 cr
ESET 0101L Electrical Circuits I Lab 5 cr
ESET 0102 Electrical Circuits II 5 cr
ESET 0102L Electrical Circuits II Lab 5 cr
ESET 0141 Applied Mathematics I 4 cr
ESET 0142 Applied Mathematics II 4 cr
ESET 0151 Nuclear Industry Fundamentals Concepts 4 cr
ESET 0151L Nuclear Industry Fundamentals Concepts Lab 1 cr
ESET 0220 Thermal Cycles and Heat Transfer 2 cr
ESET 0221 Boiler, Reactor, and Turbine Principles 2 cr
ESET 0222 Process Control Theory 3 cr
ESET 0226 Process Control Devices Lab 1 cr
ESET 0248 Power Plant Drawings 3 cr
ESET 0249 Reactor Plant Materials 3 cr
ESET 0250 Radiation Detection and Protection 3 cr
ESET 0251 Reactor Theory, Safety and Design 3 cr
ESET 0252 Power Plant Components 3 cr
ESET 0280 Capstone/Case Studies in Nuclear Operations 2 cr
CIEM 1111,1111L General Chemistry I, and Lab 5 cr
COMM 1101 Principles of Speech 3 cr
(contains to AAS Communication Requirement; satisfies Objective 2)
ENGL 1102 Critical Reading and Writing 3 cr
(satisfies a Objective 1)
MATH 1153 Introduction to Statistics 3 cr
OR
MATH 1170 Calculus I 4 cr
(each of the 2 courses above satisfies Objective 3)
PHYS 1101,1101L Elements of Physics, and Lab 4 cr
(partially satisfies Objective 5)
ESET 0103 Introduction to Electronics 3 credits
ESET 0103L Introduction to Electronics Lab 1 credit
ESET 0104 DC Electronics Principles Theory 4 credits
ESET 0104L Electrical Circuits I 5 credits
ESET 0105L AC Electronics Principles Lab 2 credits
ESET 0106 Digital Fundamentals 2 credits
ESET 0107 Principles of Control Devices Theory 3 credits
ESET 0108 Principles of Digital Devices 2 credits

Associate of Applied Science Degree:
Energy Systems Wind Engineering Technology
(4 semesters)
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.

Energy Systems Engineering Technology Courses
ESET 0100 Engineering Technology Orientation 1 credit
ESET 0121 Basic Electricity and Electronics 4 cr
ESET 0121L Basic Electricity and Electronics Lab 4 cr
ESET 0122 Electrical System and Motor Control Theory 2 cr
ESET 0122L Electrical System and Motor Control Lab 1 cr
ESET 0123 Mechanical Power Transmission 2 cr
ESET 0123L Mechanical Power Transmission Lab 4 cr
ESET 0141 Applied Mathematics I 4 cr
ESET 0142 Applied Mathematics II 4 cr
ESET 0150 Introduction to Wind Energy Systems 2 cr
ESET 0150L Introduction to Wind Energy Systems Lab 1 cr
ESET 0212 Electrical Systems Documentation and Standards 1 cr
ESET 0231 Microcontrollers 2 cr
ESET 0231L Microcontrollers Lab 1 cr
ESET 0232 Electrical Machines 3 cr
ESET 0232L Electrical Machines Lab 3 cr
ESET 0233 Electrical Power Systems 3 cr
ESET 0233L Electrical Power Systems Lab 3 cr
ESET 0240 Pumps 3 cr
ESET 0240L Pump Applications Laboratory 3 cr
ESET 0243 Fluid and Pneumatic Power 2 cr
ESET 0243L Fluid and Pneumatic Power Lab 2 cr
ESET 0247 Wind Energy Control Systems 2 cr
ESET 0247L Wind Energy Control Systems Lab 1 cr
COMM 1101 Principles of Speech 1 cr
TGE 0158 Employment Strategies 1 cr
TGE 0257 Ethical Issues in Technology 1 cr
TOTAL (minimum): 82 cr

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:
ESET 0100 Engineering Technology Orientation 1 cr
ESET 0121 Basic Electricity and Electronics 4 cr
ESET 0121L Basic Electricity and Electronics Lab 4 cr
ESET 0122 Electrical System and Motor Control Theory 2 cr
ESET 0122L Electrical System and Motor Control Lab 1 cr
ESET 0123 Mechanical Power Transmission 2 cr
ESET 0123L Mechanical Power Transmission Lab 4 cr
ESET 0141 Applied Mathematics I 4 cr
ESET 0142 Applied Mathematics II 4 cr
ESET 0150 Introduction to Wind Energy Systems 2 cr
ESET 0150L Introduction to Wind Energy Systems Lab 1 cr
ESET 0212 Electrical Systems Documentation and Standards 1 cr
ESET 0231 Microcontrollers 2 cr
ESET 0231L Microcontrollers Lab 1 cr
ESET 0232 Electrical Machines 3 cr
ESET 0232L Electrical Machines Lab 3 cr
ESET 0233 Electrical Power Systems 3 cr
ESET 0233L Electrical Power Systems Lab 3 cr
ESET 0240 Pumps 3 cr
ESET 0240L Pump Applications Laboratory 3 cr
ESET 0243 Fluid and Pneumatic Power 2 cr
ESET 0243L Fluid and Pneumatic Power Lab 2 cr
ESET 0247 Wind Energy Control Systems 2 cr
ESET 0247L Wind Energy Control Systems Lab 1 cr
COMM 1101 Principles of Speech 1 cr
TGE 0158 Employment Strategies 1 cr
TGE 0257 Ethical Issues in Technology 1 cr
TOTAL: 75 cr

Capstone Courses:
ESET 0101 Electrical Circuits I 5 credits
ESET 0105 AC Electronics Principles Lab 2 credits
ESET 0106 Digital Fundamentals 2 credits
ESET 0107 Principles of Control Devices Theory 3 credits
ESET 0108 Principles of Digital Devices 2 credits

ESET 0101 Electrical Circuits I 5 credits
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 credits
Continuation of electrical circuit study introducing the fundamentals of semiconductors, amplifier theory, digital logic and logical devices. COREQ: ESET 0101L F, S, D
ESET 0102 Electrical Circuits II 5 credits
Laboratory applications and experiments in troubleshooting of semiconductor devices and circuits, digital logic and logic device application. COREQ: ESET 0102L F, S, D
ESET 0102L Electrical Circuits II Laboratory 5 credits
ESET 0103 Introduction to Electronics Theory I credit
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 I credit
Experiments in DC electronic circuits covered in ESET 0103; using electronic components, equipment, and tools. D
ESET 0104 DC Electronics Principles Theory 2 credits
Fundamentals of DC electronics—voltage and current, meters, network theorems, and related algebraic principles. D
ESET 0104L DC Electronics Principles Lab 2 credits
Experiments in DC electronic circuits analyzing voltage and current, meters, and network theorems. D
ESET 0105 AC Electronics Principles Theory 4 credits
Electronics AC fundamentals—magnetism, inductors, capacitors, AC-DC network analysis, and related algebraic principles. D
ESET 0105L AC Electronics Principles Lab 2 credits
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 Electronics Principles Capstone 2-8 credits
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 credits
Comprehensive study of semiconductors, power supplies, transistor amplifiers, operational amplifiers, and related algebraic principles. D
ESET 0107L Principles of Control Devices Lab 3 credits
Experiments involving semiconductors, power supplies, transistor amplifiers, and operational amplifiers. D
ESET 0108 Principles of Digital Devices 2 credits
Digital fundamentals including logic
gates, Boolean algebra, combination logic circuits, digital registers, counters, and timing circuits, and related algebraic principles. D

ESET 0108L Principles of Digital Devices Lab 2 credits. Experiments involving digital fundamentals including logic gates, Boolean algebra, combination logic circuits, digital registers, counters, and timing circuits. D

ESET 0120 Introduction to Energy Systems 2 credits. Basic terminology and functions of power generation processes, equipment, and material. Introduction to Rankin, Carnot, and Brayton cycles and principles of heat transfer and fluid flow. COREQ: ESET 0120L, F, D

ESET 0120L Introduction to Energy Systems Laboratory 1 credit. Laboratory exercises in the maintenance and function of selected power plant process equipment, primary process equipment, and their sub-components. COREQ: ESET 0120. F, D

ESET 0121 Basic Electricity and Electronics 4 credits. Fundamental principles of electricity, Ohm’s law, Kirchhoff’s laws, and circuit analysis applied to DC and AC circuits. COREQ: ESET 0121L. F, D

ESET 0121L Basic Electricity and Electronics Laboratory 4 credits. 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 credits. 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 0123 Mechanical Power Transmission 2 credits. Bearings, belt and mechanical drives, chain and chain drives, couplings, clutches, gears, and fluids in the transmission of power used in the industrial processes. PREREQ: ESET 0121 and ESET 0121L or permission of instructor. COREQ: ESET 0123. S, D

ESET 0123L Mechanical Power Transmission Laboratory 4 credits. The application of bearings, belt and mechanical drives, chain and chain drives, couplings, clutches, gears, and fluids in the transmission of power used in the industrial processes. PREREQ: ESET 0121 and ESET 0121L or permission of instructor. COREQ: ESET 0123L. S, D

ESET 0124 Mechanical Systems and Machine Design 2 credits. 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. PREREQ: ESET 0122. S, D

ESET 0141 Applied Mathematics I 4 credits. Basic math as it applies to Electrical Theory; includes algebraic and trigonometric topics as they relate to DC and AC (sine wave) circuit analysis. D

ESET 0142 Applied Mathematics II 4 credits. 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. D

ESET 0150 Introduction to Wind Energy Systems 2 credits. 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 0151 Nuclear Industry Fundamental Concepts 4 credits. 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 (OJT) 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, D

ESET 0151L Nuclear Industry Fundamental Concepts Lab 1 credit. Laboratory applications of nuclear industry operations. It includes OSHA compliance courses required by nuclear facilities. COREQ: ESET 0151. F

ESET 0160 Introduction to Renewable Energy 4 credits. 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 D

ESET 0160L Introduction to Renewable Energy Lab 2 credits. Application of principles and practical applications of wind, solar, and biomass forms of energy production. COREQ: ESET 0160. D

ESET 0161 Applications of Physics and Earth Science 3 credits. 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. D

ESET 0162 Industrial Health and Safety 2 credits. An overview of legislation, worker’s compensation, hazard recognition, and safety planning. Includes basic engineering solutions. Addresses employee safety training require-
ESET 0206 Health and Safety in Power Generation 1 credit. Regulatory and practical considerations of occupational health and safety associated with working with power generation systems. PREREQ: ESET 0141, ESET 0142, ESET 0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. F, D

ESET 0210 Principles of Power Generating Systems 2 credits. 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: ESET0141, ESET0142, ESET 0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. F, D

ESET 0211 Sensors and Control Devices 2 credits. Theory and application of control devices, sensors, timers, relays. PREREQ: ESET 0141, ESET 0142, ESET 0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. F, D

ESET 0212 Electrical Systems Documentation and Standards 1 credit. Introduction to print reading, technical specifications, print annotation, report writing and electrical codes. PREREQ: ESET0141, ESET0142, ESET0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. F, D

ESET 0213 Motors, Generators and Industrial Electrical Systems 2 credits. The construction, design aspects and theory of operation of DC, single and poly-phase motors, variable frequency motor control, electrical switching boards and electrical distribution systems. PREREQ: ESET0141, ESET0142, ESET0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. F, D

ESET 0214 Motor Control Laboratory 1 credit. Applications of AC and DC motor control theory and motor protection systems. PREREQ: ESET0141, ESET0142, ESET0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. F, D

ESET 0215 Controller Laboratory 1 credit. Applications of Programmable Logic Controls and DCS including I/O configuration, Ladder logic design and function block use. PREREQ: ESET 0141, ESET 0142, ESET 0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. F, D

ESET 0216 Sensors and Control Device Laboratory 1 credit. Laboratory applications of sensors (including photoelectric and proximity types), relay and timer circuits, and application of automation devices. PREREQ: ESET 0141, ESET 0142, ESET 0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. F, D

ESET 0217 Motor, Generator and Electrical Systems Laboratory 2 credits. Installation, setup, control, maintenance, and troubleshooting of AC and DC motors, electrical device installation and industrial safety and proper tool usage. PREREQ: ESET0141, ESET0142, ESET0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. F, D

ESET 0218 Discrete Control Systems 2 credits. Discrete control concepts of power system operation including motor operated valve control, turbine sequencing and electrical system protection. PREREQ: ESET0141, ESET0142, ESET 0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. F, D

ESET 0220 Thermal Cycles and Heat Transfer 2 credits. Introduction to the Rankin, Carnot, and Brayton cycles. Includes principles of heat transfer and fluid flow and thermodynamic principles. PREREQ: ESET0141, ESET0142, ESET 0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. F, D

ESET 0221 Boiler, Reactor, and Turbine Principles 2 credits. Survey of various boiler types and principles of combustion, overview of reactor principles and steam generation, turbine types and principles of operation. PREREQ: ESET 0141, ESET 0142, ESET 0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. S, D

ESET 0222 Process Control Theory 3 credits. Electronic instruments-sensors, indicators, transmitters, computing relays, electro-optics, electronic controllers, ratio control, cascade control, recorders, analytical equipment, troubleshooting. PREREQ: ESET0141, ESET0142, ESET0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. F, D

ESET 0223 Digital Control Theory 2 credits. Digital systems, digital control, analog-to-digital and digital-to-analog interfacing, signal conditioning, programmable controllers, computer application. PREREQ: ESET0141, ESET0142, ESET0101, ESET 0101L, ESET 0102, ESET 0102L, and ESET 0226, or permission of instructor. S, D

ESET 0224 Measurement Theory 2 credits. 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 0141, ESET 0142, ESET0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. S, D

ESET 0225 Instrument Calibration Laboratory 1 credit. 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: ESET0141, ESET0142, ESET0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. S, D

ESET 0226 Process Control Devices Laboratory 1 credit. 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. PREREQ: ESET 0141, ESET 0142, ESET 0101, ESET 0101L, ESET0102, and ESET0102L, or permission of instructor. S, D

ESET 0227 Digital Control Systems Laboratory 1 credit. Computer and programmable controller interfacing with transmitters and final elements, PID loops, auto tuning, set up to complete control loops, computer graphics. PREREQ: ESET0141, ESET0142, ESET0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. S, D

ESET 0228 Measurements Laboratory 1 credit. Calibration of transmitters, simulation of process variables, temperature, pressure, level flow, and humidity control loops. PREREQ: ESET 0141, ESET 0142, ESET 0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. S, D

ESET 0230 Communication Circuits 2 credits. 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 0231L Communications Circuits Laboratory 1 credit. Laboratory applications and explorations of various communication circuit types. Includes installation and maintenance considerations of the various types of communication available. COREQ: ESET 0230L, F, D

ESET 0231 Microcontrollers 2 credits. 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 credit. 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 0231L, F, D

ESET 0232 Electrical Machines 3 credits. 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 electromagnetic transducers. COREQ: ESET 0232L, F, D

ESET 0232L Electrical Machines Laboratory 3 credits. 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 credits. 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 credits. Applications and laboratory studies of power network principles, equipment application and device evaluation. COREQ: ESET 0233, S, D

ESET 0235 Power Electronic Circuits 2 credits. 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 credit. 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 credits. Introductory hydraulic engineering concepts that pertain to centrifugal pumps, including pump seals, packing techniques, and bearings. Operation and maintenance of various industrial pump types. Emphasis on centrifugal pump maintenance and repair. PREREQ: ESET 0123 and ESET 0123L, or permission of instructor. COREQ: ESET 0240L. F, D

ESET 0240L Pumps Applications Laboratory 3 credits. Applications in the installation, testing, and maintenance of various pump types. PREREQ: ESET 0123 and ESET 0123L, or permission of instructor. COREQ: ESET 0240L. S, D

ESET 0241 Valves and Piping 3 credits. Introduction to basic construction, components, materials, and function of valve types common to power generation systems. PREREQ: ESET 0123 and ESET 0123L, or permission of instructor. COREQ: ESET 0241L. F, D

ESET 0241L Valves and Piping Applications Lab 2 credits. Applications of valve installation and maintenance including valve disassembly, reassembly, maintenance, and quality control practices. PREREQ: ESET 0123 and ESET 0123L, or permission of instructor. COREQ: ESET 0241. F, D

ESET 0242 Process Measurements for Mechanical Engineering Technology 2 credits. 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

ESET 0243 Fluid and Pneumatic Power 2 credits. Review fluid and pneumatic power mechanics with an emphasis on symbology, circuit operation and design, pneumatic and hydraulic component operation, and terminology. PREREQ: ESET 0123 and ESET 0123L, or permission of instructor. COREQ: ESET 0243L. S, D

ESET 0243L Fluid and Pneumatic Power Laboratory 2 credits. Applications of fluid and pneumatic power mechanics with an emphasis on symbology, circuit operation and design, pneumatic and hydraulic component operation, and terminology. PREREQ: ESET 0123 and ESET 0123L, or permission of instructor. COREQ: ESET 0243. S, D

ESET 0244 Rotating Equipment Maintenance 4 credits. Predictive maintenance techniques as a tool for prolonging equipment life and preventing problems. Includes vibration, lubricant and trend analysis techniques for extending bearing life. Machine, shaft, and gear alignment practices and methods as a procedure to extend the life of bearings, couplings, seals, and to reduce vibration in equipment, components and gears. PREREQ: ESET 0123 and 0124. COREQ: ESET 0244L. S, D

ESET 0244L Rotating Equipment Maintenance Lab 3 credits. Applications and use of tools and equipment used in the reliability maintenance process. Includes use of alignment tools, vibration data collection, oil analysis and infrared testing. PREREQ: ESET 0124 or permission of instructor. COREQ: ESET 0244. S, D

ESET 0245 Fundamentals of Heat Exchangers 2 credits. Introduces construction of various heat exchanger types and their operation. Includes flow patterns, temperature profiles, and analysis techniques to determine performance and efficiency. S, D

ESET 0246 Materials and Metallurgy 2 credits. 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 credits. 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, and 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 credit. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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, and ESET 0259. PREREQ: Smart Grid major or instructor approval. F

ESET 0254 Smart Grid Design and Integration 2 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 0271 Radio Frequency and Telecommunications Systems I 7 credits. 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 credits. 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 credits. 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 credits. Practical application of radio frequency/telecommunications systems 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/Telecommunications Laboratory III 3 credits. Continuation of ESET 0274. D

ESET 0276 Coop 1-4 credits. 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 credits. 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 credits. 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. S, D

ESET 0282 Wireless Network Security 3 credits. Overview of wireless networks with a focus on threats, discussion of proposed solutions and their limitations. Topics will include authentication, secure handoffs, 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. S, D

ESET 0283 Information System Security Design 3 credits. 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 analysis of mission-critical system attributes. COREQ: ESET 0281, ESET 0282, ESET 0284, ESET 0285, and ESET 0286. S, D

ESET 0284 Risk Management for Critical Data Systems 3 credits. 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 0285, and ESET 0286. S, D


ESET 0290 Energy Systems Theory 18 credits. Theory in application of energy systems control devices, sensors, timers, relays, programmable controllers, electronic 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 1 5 credits. 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 credits. 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 0292 Electrical Engineering Technology 17 credits. 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. PREREQ: ESET 0141, ESET 0142, ESET 0101, ESET 0101L,
Fire Services Administration

Coordinator: Mikitish

One Associate of Applied Science degree (which requires 69 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 standardizes what students learn and facilitates the application of these courses toward certification goals; and
4. Collaboration between fire certification and training agencies and academic fire programs.

The Fire Service Technology program is designed to upgrade the fire fighting skills and knowledge of volunteer and paid fire fighters. In some instances, a volunteer fire fighter may use this degree as a means to enter the fire service as a paid professional. The program covers all phases of fire fighting. The intent is to provide fire fighters with the skills needed to save lives and protect property in a safe and efficient manner. Special fees apply to this program. Students must be registered at Idaho State University to apply for graduation.

Because students must complete 38 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 recommended 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/programs.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: Fire Services Administration

University General Education Requirements (36 credits minimum) will be met with the following recommended courses:

<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 Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>CHEM 1100</td>
<td>Architecture of Matter</td>
<td>4 cr</td>
</tr>
<tr>
<td>COMM 1101</td>
<td>Principles of Speech</td>
<td>3 cr</td>
</tr>
<tr>
<td>ECON 1100</td>
<td>Economic Issues</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 1101</td>
<td>English Composition</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 1102</td>
<td>Critical Reading and Writing</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHIL 1103</td>
<td>Introduction to Ethics</td>
<td>3 cr</td>
</tr>
<tr>
<td>POLS 1101</td>
<td>Introduction to American Government</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Choose one course from each of the following four sets (12 cr):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMST 2200</td>
<td>Introduction to American Studies</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIST 1118</td>
<td>U.S. History and Culture</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 1130</td>
<td>Finite Mathematics</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 1153</td>
<td>Introduction to Statistics</td>
<td>3 cr</td>
</tr>
<tr>
<td>SOC 1102</td>
<td>Social Problems</td>
<td>3 cr</td>
</tr>
<tr>
<td>SOC 1101</td>
<td>Introduction to Sociology</td>
<td>3 cr</td>
</tr>
<tr>
<td>PSYC 1101</td>
<td>Introduction to General Psychology</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

One Objective 4 or Objective 9 course (min 3 cr)

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 cr</td>
</tr>
<tr>
<td>FSA 1102</td>
<td>Fire Behavior and Combustion</td>
<td>2 cr</td>
</tr>
<tr>
<td>FSA 1103</td>
<td>Fire Prevention and Education</td>
<td>2 cr</td>
</tr>
<tr>
<td>FSA 1105</td>
<td>Fire Protection Systems</td>
<td>2 cr</td>
</tr>
<tr>
<td>FSA 1106</td>
<td>Principles of Emergency Service</td>
<td>2 cr</td>
</tr>
<tr>
<td>FSA 1107</td>
<td>Principles of Fire and Emergency Services Safety and Survival</td>
<td>2 cr</td>
</tr>
</tbody>
</table>

*Lower division credits refer to courses that are lower in the academic level than upper division courses.
Fire Services Administration Non-Core Courses (4 credits)*
Choose TWO courses:
- FSA 1104 Fire Protection Hydraulics and Water Supply 2 cr
- FSA 2201 Fire Administration I 2 cr
- FSA 2202 Legal Aspects of the Emergency Services 2 cr

Emergency Medical Technician Basic Courses (15 credits)**
- CIS 1101, CIS 1101L Digital Resources for Information Literacy, and Lab 3 cr
- OR
- BT 0170 Introduction to Computers 3 cr
- OR
- CSDT 0181 Computer Fundamentals 3 cr
- EMTB 0119 Fundamentals of Emergency Medical Care 4 cr
- EMTB 0119L Fundamentals of Emergency Medical Care Laboratory 4 cr
- EMTB 0210 Emergency Department Clinicals 2 cr
- EMTB 0212 EMS Field Practicum 2 cr

*Completion of Fire Officer I (90 hours) meets this 4-credit requirement.
**Completion of Firefighter II (200 hours), Firefighter II (90 hours), and Current EMTB Certification (must maintain throughout the program), OR Current EMTB National Certification (must maintain throughout the program) meets the 12-credit EMTB requirement that is part of this group.

Bachelor of Science Degree: Fire Services Administration

(44 upper division credits in the major)
(Lower division (AS) and upper division must total 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 Courses (42 upper division credits)
- FSA 3323 Fire and Emergency Services Administration 3 cr
- FSA 3324 Analytic Approaches to Public Fire Protection 3 cr
- FSA 3325 Personnel Management for the Fire Service Administrator 3 cr
- FSA 3326 Fire Prevention Organization and Management 3 cr
- FSA 3327 Fire-Related Human Behavior 3 cr
- FSA 3328 Disaster Planning and Control 3 cr
- FSA 3329 Political and Legal Foundations of Fire Protection 3 cr
- FSA 3330 Fire Protection Structures and Systems 3 cr
- FSA 3331 Community Risk Reduction for Fire and Emergency Services 3 cr
- FSA 3332 Fire Investigation and Analysis 3 cr
- FSA 3333 Applications of Fire Research 3 cr
- FSA 3334 Fire Dynamics 3 cr
- FSA 3335 Emergency Medical Services Administration 3 cr
- FSA 3336 Managerial Issues of Hazardous Materials 3 cr

Additional course (2 cr) chosen from the following:
- FSA 4403 Field Study 2 cr
- FSA 4409 Practicum/Internship 2 cr

Political Science Emphasis (15 credits)*
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 3 cr
- Six credits of political science core curriculum Courses (excluding POLS 4460) 6 cr
- Six credits of elective political science courses (excluding POLS 4459) 6 cr

*Note: POLS 1101 Introduction to American Government is required for the minor if coursework is not complete in Fire Services Administration Associate degree.

FSA Courses
- FSA 1101 Building Construction for Fire Protection 2 credits. 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 credits. Theories and fundamentals of fire: start, spread, and control. D
- FSA 1103 Fire Prevention 2 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 2296 Independent Study 1-8 credits. 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 instructor. D
- FSA 3323 Fire and Emergency Services Administration 3 credits. 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 credits. 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, 1105, and 1106. D
- FSA 3325 Personnel Management for the Fire Service Administrator 3 credits. Relationships and issues in personnel administration and human resource development within the context of fire-related organizations. PREREQ: FSA 1106, 1201, and 2202. D
- FSA 3326 Fire Prevention Organization and Management 3 credits. 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 1106. D
- FSA 3327 Fire-Related Human Behavior 3 credits. 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 Disater Planning and Control 3 credits. 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 credits. 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 2202. D

FSA 3330 Fire Protection Structures and Systems 3 credits. 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 1106. D

FSA 3331 Community Risk Reduction for Fire and Emergency Services 3 credits. 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 1106. D

FSA 3332 Fire Investigation and Analysis 3 credits. 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 1106. D

FSA 3333 Applications of Fire Research 3 credits. 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, and fire service applied research. PREREQ: FSA 1103 and 1106. D

FSA 3334 Fire Dynamics 3 credits. 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 1106. D

FSA 3335 Emergency Medical Services Administration 3 credits. 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. PREREQ: EMTB 1121 and FSA 1106. D

FSA 3336 Managerial Issues of Hazardous Materials 3 credits. 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, 2201, and 2202. D

FSA 4403 Field Study 2 credits. Supervised experience in fire service administration in a variety of command levels and responsibilities. Open to degree candidates only. Graded S/U.

FSA 4409 Practicum/Internship 2 credits. Supervised experience in fire service administration in a variety of professional and career-oriented situations. Open to degree candidates only. Graded S/U.

Geomatics Technology

Program Coordinator and Professor: Bajracharya
Assistant Professor: Liimakka

A Bachelor of Science degree in Geomatics Technology is available.

Program Objectives

Graduates of the Geomatics Technology program will:

1. Have the basic math and science knowledge and technical skills of the Geomatics Technology discipline appropriate to enter careers in the Geospatial Community, for example, boundary surveying, route and construction surveying, survey adjustments, Global Positioning System (GPS), photogrammetry, geodesy, and land/geographic information systems.

2. Possess the ability to execute Geomatics project activities for delivery in response to the needs of private and public industry.

3. Have appropriate understanding of standards and specifications of 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 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/geomatics/assets/bookTool.pdf.

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: Geomatics Technology

The following courses are required for a Bachelor of Science Degree.

**Required Courses:**
- CET 0111/GEMT 1111 Drawing with CAD 3 cr
- CET 0112/GEMT 1112 Beginning Surveying 5 cr
- CET 0121/GEMT 1121 Civil Engineering Tech Drafting 3 cr
- CET 0122/GEMT 1122 Intermediate Surveying 5 cr
- CET 0216/GEMT 2216 Route Survey and Design 6 cr
- CET 0226/GEMT 2226 Construction Surveying 6 cr
- ENGL 3307 Construction Surveying Professional and Technical Writing 3 cr
- GEMT 3310 Surveying Law and Boundary Description 3 cr
- GEMT 3311 Advanced Surveying 3 cr
- GEMT 3312 Public Land Surveying 3 cr
- GEMT 3313 Surveying Software Applications 3 cr
- GEMT 3314 Research and Evidence in Surveying 3 cr
- GEMT 3315 Surveying Adjustments and Coordinate Systems 3 cr
- GEMT 3317 Subdivision Planning and Platting 3 cr
- GEMT 4411 Geodesy 3 cr
- GEMT 4415 Survey Office Practice 3 cr
- GEMT 4416 Surveying Project 3 cr
- GEMT 4430 GPS Principles and Applications 3 cr
- MATH 1147 Precalculus 5 cr

**Complete either these two courses:**
- MATH 1170 Calculus I 4 cr
- MATH 1175 Calculus II 4 cr

**OR these two courses:**
- RCET 0264 Introductory Calculus 4 cr
- RCET 0372 Calculus for Advanced Electronics 4 cr

**Complete one of the following:**
- GEMT 4432 Principles of Photogrammetry 3 cr
- GEOG 4009 Remote Sensing 3 cr

**Complete one of the following:**
- GEMT 4425 Principles of Cartography 3 cr
- GEOG 4040 Advanced Geographic Information Systems 3 cr
- HIST 4490 History and Design 3 cr

**Complete one of the following:**
- GEMT 4413 Land Information System 3 cr
- GEOG 4043, 4403L Principles of Geographic Information Systems, and Lab 3 cr
- HIST 4489 GIS for Social Sciences 3 cr

**General Education Requirements:**
- COMM 1101 Principles of Speech (satisfies Objective 2) 3 cr
- ENGL 1101 English Composition 3 cr
- ENGL 1102 Critical Reading and Writing 3 cr (satisfies Objective 1)
- MATH 1153 Introduction to Statistics 3 cr (satisfies Objective 3)
- PHYS 1101, 1101L Elements of Physics, and Lab 4 cr (partially satisfies Objective 5)
- HIST 1118 U.S. History and Culture 3 cr (satisfies Objective 7)

**ECON Courses**
- ECON 1100 Economic Issues 3 cr OR ECON 2201 Principles of Microeconomics 3 cr OR ECON 2202 Principles of Macroeconomics 3 cr (each of the 3 courses above partially satisfies Objective 7)
- PHIL 1103 Introduction to Ethics 3 cr (partially satisfies Objective 4)

**Other Objective courses**
- TOTAL: 121 cr

**GEMT Courses**

**GEMT 1111 Drawing with CAD 3 credits.** 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 credits.** 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 credits.** 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 CET 0121. PREREQ: CET 0111/GEMT 1111. S

**GEMT 1122 Intermediate Surveying 5 credits.** Study 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 CET 0122. PREREQ: CET 0112/GEMT 1112. S

**GEMT 2216 Route Survey and Design 6 credits.** 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. PREREQ: CET 0212/GEMT 1122. F

**GEMT 2226 Construction Surveying 6 credits.** Intermediate GPS theory and operation in construction surveying. Construction staking procedures and use of data collection roads software. Equivalent to CET 0226. PREREQ: CET 0216/GEMT 2216. F

**GEMT 3310 Surveying Law and Boundary Descriptions 3 credits.** Riparian and littoral rights, ownership, transfer and writing of legal description, boundary law, prescriptions, easements and reversions, sequential and simultaneous conveyances, case studies, brief history of public land surveys, state laws, rules for practicing surveying, ALTA survey. PREREQ: GEMT junior status or permission of instructor. D

**GEMT 3311 Advanced Surveying 3 credits.** Discuss transverse Mercator projection and state plane coordinates, spherical trigonometry and astronomical observation, and coordinate geometry calculations. Control surveys include triangulation, precise traverse, intersection and resection. Collect data using robotic station, digital level, and precise leveling. PREREQ: CET 0226/GEMT 2226 or permission of instructor. F

**GEMT 3312 Public Land Surveying 3 credits.** Study of surveys of public land. Includes a general scheme of subdivision of U.S. public lands and legal aspects of lands surveys, riparian rights, and irregularities in subdivision. Studies of Idaho Codes and regulation of public land surveys, corner perpetuation and filing, and recording of surveys. Students do case studies and final report. PREREQ: CET 0226/GEMT 2226. F

**GEMT 3313 Surveying Software Applications 3 credits.** Civil/survey software. Topics include data download; batch file creation; editing and processing; COGO functions; field to finish functions; area and lot sizing; TINs, DTMs and contours creation; calculation of volumes and basic road design and layout. PREREQ: CET 0226/GEMT 2226 or permission of instructor. F

**GEMT 3314 Research and Evidence in Surveying 3 credits.** Survey of research sources and techniques including field, surveyors’ offices, governmental agency, courtroom procedures and practices. Local government agency permit and approval procedures. Surveyor/attorney interaction and roles. Student will work on case studies and prepare a final report. PREREQ: CET 0226/GEMT 2226. S

**GEMT 3315 Surveying Adjustments and Coordinate Systems 3 credits.** Studies matrix inverse; solution of linear equation by matrices, theory and computation of least squares adjustments, coordinate transformation, error ellipses, and statistical testing. PREREQ: MATH 1170, MATH 1153 and CET 0226/GEMT 2226. S

**GEMT 3317 Subdivision Planning and Platting 3 credits.** Land use planning; governmental regulations and permits as applied to subdivisions; subdivision planning, computations and preparation of subdivision plats. PREREQ: GEMT 3313. F

**GEMT 4400 Essentials of Surveying 2 credits.** Preparation for fundamentals of surveying exam. May not be used as a technical elective. May be repeated once for a total of 4 credits. PREREQ: Senior in Geomatics, graduate, or Civil Engineering Technology, Civil Engineering, or industry experience. Graded S/U. F, S

**GEMT 4411 Geodesy 3 credits.** Introduces geometry of ellipsoid, reference coordinate systems, local geodetic coordinate system, re- duction of observation to other geodetic values, precise leveling and orthometric height, direct and inverse geodetic position computation and gravity field of earth. PREREQ: Senior standing or permission of instructor. S
Graphic Arts/Printing Technology
Program Coordinator/Master Instructor: Hawk
Advanced Instructor: O’Neil

This course is being discontinued and new applications are not being accepted.

GART 0123 Finishing Binding 1 credit. This course will introduce the student to the binding and finishing operations that are necessary to prepare the printed job for final delivery. This will include cutting the paper before and after printing, folding, creasing, slitting, scoring, binding and other finishing operations. F, S, Su

GART 0124 Printing Mathematics 2 credits. This course applies basic mathematics related to the graphic arts industry. This includes addition, subtraction, multiplication, division, fractions, percentages and appropriate conversions used in the graphic arts industry. F, S, Su

GART 0128 Intermediate Press Operation 7 credits. Complex offset press work to produce multicolor printing requiring close register. F, S, Su

GART 0129 Beginning Desktop Publishing/Print Media 8 credits. Basic theory, industry standards, and layout skills. Introduction to typography and to desktop publishing equipment and software as used in the graphic arts industry. F, S, Su

GART 0130 Intermediate Desktop Publishing/Print Media 8 credits. Produce artwork for print production using graphic manipulation software. Theory for design, color, and digital imaging combined with typography skills. F, S, Su

GART 0131 Advanced Press Operation 6 credits. This course is designed to train the student in the operation of larger sheet-fed offset presses. The student will produce single and multicolor close register printing on larger format presses. PREREQ: GART 0128. F, S, Su

GART 0132 Advanced Desktop Publishing/Print Media 8 credits. Advanced training in more complex desktop publishing and electronic graphic applications. PREREQ: GART 0130. F, S, Su


GART 0135 Graphic Arts Production 8 credits. Produce live work from concept to completion, layout, typeset, produce negatives for masking and platemaking, print and complete the bindery work on small and large printing projects for the University. May include supervised internships and job shadowing. F, S, Su

GART 0137 Screen Printing 7 credits. Provide first hand experience in the varied aspects of screen printing processes and enable students to confidently produce quality, multi-colored and registered prints. F, S, Su

GART 0138 Introduction to Design/Print Media 8 credits. Introductory course exploring visual elements in design, color relationships, and effective communication through design. In-depth understanding of design and production as it relates to print media. F, S, Su

GART 0139 Digital Design Techniques and Emerging Technologies 8 credits. Digital application of design techniques. Using design in collaborating marketing packages and displays. Study of emerging technologies and trends in the graphic communications industry. F, S, Su

GART 0140 Advanced Digital Design and Multiple Media 8 credits. Production of digital design for application in print and on-line digital media. Application of production techniques in file editing and manipulation for multimedia output. F, S, Su

GART 0296 Independent Study 1-8 credits. 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 instructor. D

GART 0298 Special Topics 1-8 credits. 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

4 Semester Program for full time students. Part time program also available. This program can be taken fully online.

Coordinator and Master Instructor: Young
Advanced Instructor: Lowry

The program is accredited by the Commission on Accreditation of Allied Health Educational Programs 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).

One Associate of Applied Science Degree, one Bachelor of Science in Health Science Degree, and one Bachelor of Applied Science Degree are available.
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.shtml](http://www.isu.edu/ctech/healthinfo.shtml).

Associate of Applied Science Degree:

Health Information Technology

(4 Semesters)

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:

All required courses must be completed with a grade of “C” or better.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HO 0105</td>
<td>Introduction to Allied Health Careers</td>
<td>2 cr</td>
</tr>
<tr>
<td>HO 0106</td>
<td>Medical Terminology</td>
<td>2 cr</td>
</tr>
<tr>
<td>HO 0107</td>
<td>Medical Law and Ethics</td>
<td>3 cr</td>
</tr>
<tr>
<td>HO 0111</td>
<td>Introduction to Anatomy and Physiology</td>
<td>4 cr</td>
</tr>
<tr>
<td>HO 0208</td>
<td>Introduction to Pathology</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL 3301</td>
<td>Anatomy and Physiology, and Labs</td>
<td>8 cr</td>
</tr>
<tr>
<td>BIOL 3305</td>
<td>Introduction to Pathobiology</td>
<td>3 cr</td>
</tr>
<tr>
<td>HO 0209</td>
<td>Principles of Drugs and Their Uses</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIT 0201</td>
<td>Supervised Professional Practice I</td>
<td>2 cr</td>
</tr>
<tr>
<td>HIT 0202</td>
<td>Health Information I</td>
<td>4 cr</td>
</tr>
<tr>
<td>HIT 0203</td>
<td>Health Statistics and Quality Improvement</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIT 0204</td>
<td>Health Information II</td>
<td>4 cr</td>
</tr>
<tr>
<td>HIT 0207</td>
<td>Supervised Professional Practice II</td>
<td>4 cr</td>
</tr>
<tr>
<td>HIT 0208</td>
<td>ICD-10 Coding</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIT 0209</td>
<td>CPT Coding</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIT 0213</td>
<td>Advanced Coding</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL 1101, 1101L</td>
<td>Biology I, and Lab (partially satisfies Objective 5)</td>
<td>4 cr</td>
</tr>
<tr>
<td>ENGL 1102</td>
<td>Critical Reading and Writing</td>
<td>3 cr</td>
</tr>
<tr>
<td>PSYC 1101</td>
<td>Introduction to General Psychology</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

HIT 0201 Supervised Professional Practice I 2 credits. Directed clinical practice in various health information sites under the preceptorship of a practicing professional for 4 hours per week for eight weeks. PREREQ: All first year courses must be completed. Graded P/NP. F, S

HIT 0202 Health Information I 4 credits. 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 credits. 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 credits. Theory, practice and skills in managing health information and personnel. F, S

HIT 0207 Supervised Professional Practice II 4 credits. Directed clinical practice in a health information department under the preceptorship of a practicing professional for 40 hours per week for four weeks. PREREQ: HIT 0201, HIT 0202, HIT 0208, and HIT 0209. COREQ: HIT 0203, HIT 0204, and HIT 0213. Graded S/U. F, S

HIT 0208 ICD-10 Coding 3 credits. Principles and application of coding for statistical and reimbursement purposes utilizing the International Classification of Diseases. PREREQ: HO 0106, BIOL 1101, BIOL 1101L, and HO 0111 or BIOL 3301 and BIOL 3302. F, S

HIT 0209 CPT Coding 3 credits. 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 credits. 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 0208 and HIT 0209. F, S

HIT 0296 Independent Study 1-8 credits. 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 instructor. D

HIT 0298 Special Topics 1-8 credits. 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 Occupations Department

Chair: Peterson
Advanced Instructor: Flint
Instructor: Allen

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
- Bachelor of Science in Health Sciences
- Early Childhood Care and Education
- Fire Services Administration
- Emergency Management
- Health Information Technology
- Massage Therapy
- Medical Assisting
- Physical Therapist Assistant
- Practical Nursing
- Respiratory Therapy

This department offers programs to prepare students for a variety of health and human service occupations. The programs offer Certificates, Associate of Applied Science, Associate of Science, and Bachelor’s Degrees.

In each of these programs that offers an Associate degree, the student may elect to earn a Bachelor of Applied Technology (B.A.T.) or Bachelor of Science in Health Science (BSHS) degree. 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. More detailed information is provided under Academic Information in the General Information section of this Catalog.

The Department offers a Prehealth option for students who wish to explore the variety of health professions. Those courses are
listed below. Students who wish to enroll in any of the Health Occupations programs should review the specific program requirements listed in the College of Technology.

For a list of links to programs in this department, go online to http://www.isu.edu/ctech/healthdepartment.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.

**Prehealth Requirements:**

- **HO 0105** Introduction to Allied Health Careers 2 cr
- **HO 0106** Medical Terminology 2 cr
- **HO 0107** Medical Law and Ethics 3 cr
- **HO 0111** Introduction to Anatomy and Physiology 4 cr OR
- **BIOL 3301** Anatomy and Physiology 4 cr
- **BIOL 3302** Anatomy and Physiology 4 cr
- **HO 0208** Introduction to Pathology 3 cr
- **HO 0209** Principles of Drugs and their Uses 3 cr

**Bachelor of Science in Health Science**

**Concentration 3: Health Occupations**

The Bachelor of Science in Health 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 Courses; and Associate Degree/Health Occupations Concentration Requirements.

1) **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 currency. If the associate degree is over five years old, the degree must be evaluated for currency in the technical field.

2) **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 Academic Information section of this Catalog). Specific requirements may be listed under individual health occupations program curricula (choose programs above).

3) **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.

4) **Associate Degree/Health Occupations Concentration Requirements (20 credits minimum)**

| BIOL 3302, 3302L Anatomy and Physiology, and Lab | 4 cr |
| MATH 1153 Introduction to Statistics | 3 cr |
| PSYC 3369 AIDS | 1 cr |

**Chemistry—choose one set (9 credits or 7 credits):**

- **CHEM 1111, 1111L General Chemistry I, and Lab 5 cr** AND
- **CHEM 1112, 1112L General Chemistry II, and Lab 4 cr** OR
- **CHEM 1101 Introduction to General Chemistry 3 cr** AND
- **CHEM 1102, 1103L Introduction to Organic and Biochemistry, and Lab 4 cr**

**Physics—choose one combination (4 or 8 credits):**

- **PHYS 1111, 1113 General Physics I, and Lab 4 cr** AND
- **PHYS 1112, 1114 General Physics II, and Lab 4 cr** OR
- **PHYS 1100 Essentials of Physics 4 cr**

**Choose one:**

- **BIOL 3305 Introduction to Pathobiology 3 cr**
- **HE 3383 Epidemiology 3 cr**
- **RESP 2214 Introduction to Pulmonary Disease 4 cr**

**Choose one course (3 credits):**

- **HE 3340 Health Careers 2 credits**
- **HCA 3350 Human Resource Management in Healthcare 3 cr**
- **HCA 3384 Management of Healthcare Organizations 3 cr**
- **NTD 3340 Nutrition for Health Professionals 3 cr**
- **PE 3300 Movement Theory and Motor Development 3 cr**
- **PE 3370 Care and Prevention of Athletic Injuries 3 cr**
- **PSYC 3301 Abnormal Psychology I 3 cr**
- **PSYC 3341 Social Psychology 3 cr**
- **RESP 3310 Case Management II 2 cr**
- **RESP 3325 Clinical Practice of Therapeutic Procedures II 3 cr**
- **RESP 2231, 2232 Patient Assessment I and II 4 cr**
- **SOC 3330 Sociology of Health and Illness 3 cr**

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 Academic Information section of this Catalog), BSHS Core requirements (20-24 credits), and Associate Degree Concentration requirements (20 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.

**HO Courses**

- **HO 0105 Introduction to Allied Health Careers 2 credits**. Introduction to allied health careers emphasizing the interrelationships and the team approach to health care. F, S, Su
- **HO 0106 Medical Terminology 2 credits**. Body systems approach to theory and application of medical terms including anatomical, pathological, surgical and diagnostic as well as appropriate abbreviations. F, S, Su
Department of Human Resource Training and Development

Chair and Professor: Scott Johnson
Associate Professor: McNeil
Assistant Professors: Lindbeck, Lion Emeriti: Bobell, Croker, Humphrey

The Department of Human Resource Training and Development (HRTD) offers courses to prepare students for a bachelor of science degree in Human Resource Training and Development with options in Corporate Training or Professional-Technical Teacher Education. The Master of Training and Development is described in the Graduate Catalog.

The baccalaureate program in Human Resource Training and Development, 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.

For Program information showing descriptions of each option and course descriptions, go online to: http://www.isu.edu/academic-info/current/technology/shumres.html.

A course grade of “C-“ is the minimum acceptable grade in a Human Resource Training and Development (HRD prefix) course and/or required course. A course grade of “D” or lower in any HRD course and/or required course is unacceptable towards graduation and should be repeated.

Bachelor of Science Degree: Human Resource Training and Development

Credit Requirements
Credit toward the Professional-Technical Teacher Education or Corporate Training option must be earned in three specific areas:

1. Competency-Based Experience—Credit may be granted for occupational competency based on demonstration of competency in a field of specialization. Portfolios will be accepted after the student’s sophomore year. A minimum of 24 months of professional-technical, proprietary, or military education successfully completed in an approved program may be applied. All applicable work experience and technical education must be documented, verified, and evaluated by a review committee prior to granting of 24 credits. The credit granted may be applied toward the Professional-Technical Teacher Education or Corporate Training option only.

2. General Education—University requirements for a B.S. Degree: 36 credits minimum (see the Academic Information section of catalog).

3. Option Core and Electives coursework—See requirements.

Professional-Technical Teacher Education Option
The Professional-Technical Teacher Education Option prepares learners 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 postsecondary institutions.

Technical Specialization Coursework

Students enrolled in the PTE option must possess coursework leading to a technical specialization in at least one occupational area recognized as a specialization offered in a post-secondary professional-technical system.

Minimum Requirements: Professional-Technical Teacher Education Option

General Education requirements
for a B.S. Degree (minimum) 36 cr
Option Core 30 cr
Competency-Based Experience (HRD 2210/3310) 24 cr
Technical specialization (maximum of 18) and electives 30 cr
TOTAL: 120 cr

Required Courses: Professional-Technical Teacher Education Option

HRD 4401 Foundations of Professional-Technical Education 3 cr
HRD 4402 Occupational Analysis and Course Construction 3 cr
HRD 4403 Methods of Teaching Professional-Technical Education 3 cr
HRD 4404 Evaluation in Corporate Training and Professional-Technical Education 3 cr
HRD 4405 Learning Styles Fundamentals 3 cr
HRD 4431 Workforce Leadership 3 cr
HRD 4444 Career Guidance and Special Needs in Professional-Technical Education 3 cr
HRD 4457 Facilitating Adult Learning 3 cr
HRD 4464 Instructional Facilities Management 3 cr
HRD 4467 Practicum in Professional-Technical Education 3-8 cr

Electives: Professional-Technical Teacher Education Option

HRD 3320 Selected Topics 1-3 cr
HRD 4406 Grantwriting in Human Resource Training and Development 3 cr
HRD 4409 Professional Readings and Writing 3 cr
HRD 4410 Principles of Leadership and Change 3 cr
HRD 4431 Workforce Leadership 3 cr
HRD 4450 Principles of Adult Education 3 cr
HRD 4461 Directed Studies 1-4 cr

Corporate Training Option

The Corporate Training Option 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 postsecondary technical program, the military, or continuing education evaluated by the American Council of Education Guide.

Minimum Requirements: Corporate Training Option
General education requirements for a B.S. Degree (minimum) 36 cr
Option Core 30 cr
Competency-Based Experience (HRD 2210/3310) 24 cr
Electives 30 cr
TOTAL: 120 cr

Required Courses: Corporate Training Option
HRD 4401 Foundations of Professional-Technical Education 3 cr
HRD 4402 Occupational Analysis and Course Construction 3 cr
HRD 4403 Methods of Teaching Professional-Technical Education 3 cr
HRD 4404 Evaluation in Corporate Training and Professional-Technical Education 3 cr
HRD 4407 Instructional Technology in HRD 3 cr
HRD 4409 Professional Readings and Writing 3 cr
HRD 4431 Workforce Leadership 3 cr
HRD 4450 Principles of Adult Education 3 cr
HRD 4457 Facilitating Adult Learning 3 cr
HRD 4465 Practicum in Corporate Training 3 cr

Electives: Corporate Training Option
HRD 3320 Selected Topics 1-3 cr
HRD 4406 Grantwriting in Human Resource Training and Development 3 cr
HRD 4410 Principles of Leadership and Change 3 cr
HRD 4444 Career Guidance and Special Needs in Professional-Technical Education 3 cr
HRD 4461 Directed Studies 1-4 cr
HRD 4468 Teaching Cooperative Education and School-to-Work 3 cr

HRD Courses
HRD 2210 Competency-Based Equivalency I 12 credits. Credit, unique to the corporate training and vocational teacher education majors, for technical competence gained through verified employment evaluated by review committee. PREREQ: Sophomore standing and 6 required credits in the major. Graded S/U. F, S, Su
HRD 2220 Technical Education Equivalency 1-18 credits. Credit, unique to the corporate training and professional teacher 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
HRD 2296 Independent Study 1-8 credits. 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 instructor. D
HRD 2298 Special Topics 1-8 credits. 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
HRD 3310 Competency-Based Equivalency II 12 credits. Credit, unique to the corporate training and vocational teacher education majors, for technical competence gained through verified employment evaluated by review committee. PREREQ: Sophomore standing and 6 required credits in the major. Graded S/U. F, S, Su
HRD 3320 Selected Topics 1-3 credits. Examination and analysis of special topics for professional-technical education teachers/trainers. PREREQ: Permission of instructor. D
HRD 3397 Professional Education Development 1-3 credits. A course for the practicing occupational educator aimed at the development and improvement of educational skills. Various sections will have different subtitles. May be repeated up to four times. Graded S/U. D
HRD 4401 Foundations of Professional-Technical Education 3 credits. Acquaints the student with the various aspects of professional-technical (formerly vocational) education: history, legislation, philosophy and organization of professional-technical education. D, W
HRD 4402 Occupational Analysis and Course Construction 3 credits. Analysis of components of occupations to determine instructional content. Development of instructional materials based on performance objectives and competency identification. F, S
HRD 4403 Methods for Teaching Professional-Technical Education 3 credits. Teaching methods and techniques applicable to professional-technical education. F, S
HRD 4404 Evaluation in Corporate Training and Professional-Technical Education 3 credits. Designing and conducting evaluations at four levels in professional-technical education, and in business and industry training, including data analysis and preparation of evaluation reports. F, S
HRD 4405 Learning Styles Fundamentals 3 credits. Examination of the research related to learning styles and implications for curriculum and instruction. Includes presentation of an eight-step approach for teaching pedagogical content. F, S
HRD 4406 Grantwriting in Human Resource Training and Development 3 credits. 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
HRD 4407 Instructional Technology in HRD 3 credits. Applying evidence-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
HRD 4409 Professional Readings and Writing 3 credits. Exposure to the professional literature and websites of professional-technical education and corporate training, including practice in writing abstracts of journal articles using APA Style. D
HRD 4410 Principles of Leadership and Change 3 credits. 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 and leading change. D
HRD 4431 Workforce Leadership 3 credits. 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
HRD 4444 Career Guidance and Special Needs in Professional-Technical Education 3 credits. Examine career guiding concepts, specialist services, special needs legislation, abilities and inabilities (both mental and physical), job seeking skills, and information sources. D
HRD 4450 Principles of Adult Education 3 credits. 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
HRD 4457 Facilitating Adult Learning 3 credits. Study of the needs and interests of adult learners in business and industry using andragogy. Planning of conferences and workshops for adult learners. F, S
HRD 4461 Directed Studies 1-4 credits. Individual work under staff guidance. Field research on specific occupational advances in technology. PREREQ: Permission of instructor. D
HRD 4464 Instructional Facilities Management 3 credits. Organization, safety, and management of professional-technical education training facilities. An in-depth study of laboratory requirements and total facility planning. D
HRD 4465 Practicum in Corporate Training 3 credits. Development of training competencies applicable to business and industry settings. Actual supervised participation as a trainer is required. PREREQ: Permission of instructor. Graded S/U. F, S
HRD 4467 Practicum: Student Teaching 3-8 credits. Development of teaching competencies applicable to professional-technical (formerly vocational) education settings at the secondary and post-secondary levels. Actual participation as an associate teacher is required. PREREQ: Permission of instructor. Graded S/U. F, S
HRD 4468 Teaching Cooperative Education and School-to-Work 3 credits. Coordinating cooperative education and school-to-work programs, occupational and job analysis, using professional-technical advisory committees, organizing and advising vocational student organizations. S
Information Technology Systems

(2 to 4½ Semesters)

Coordinator and Senior Instructor: Hill
Instructor: Hunt

One Technical Certificate, one Advanced Technical Certificate, one Associate of Applied Science degree, and one Bachelor of Applied Science degree are available.

Information technology systems technicians maintain, service, and repair computer equipment and computer peripherals. They also install, troubleshoot and maintain computer networks.

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.

Program length will vary depending on student’s academic qualifications at time of acceptance.

For a Program Information Packet, go to the URL http://www.isu.edu/ctech/its/assets/bookTool.pdf 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.

Technical Certificate: Computer Network Technician

(2 Semesters)

Required Courses:
- ITS 0100 Computer System
- ITS 0110 Networking Basics 3 cr
- ITS 0120 Introduction to Unix 3 cr
- ITS 0130 Basic Electronic Concepts 3 cr
- ITS 0150 Networking I 4 cr
- ITS 0160 Networking II 3 cr
- ITS 0170 Computer Peripheral Equipment 3 cr
- ITS 0180 Network Operating Systems 3 cr
- ITS 0200 Data Cabling 3 cr
- ITS 0210 Workplace Relations Practicum 2 cr
- ITS 0220 Networking III 3 cr
- ITS 0230 Wireless Technologies 3 cr
- ITS 0240 Securing the LAN 4 cr
- TGE 0135 Work Place Relations 3 cr

TOTAL: 31 cr

Advanced Technical Certificate: Computer Network Technician

(4½ Semesters)

Required Courses:
- ITS 0100 Computer System
- ITS 0110 Networking Basics 3 cr
- ITS 0120 Introduction to Unix 3 cr
- ITS 0130 Basic Electronic Concepts 3 cr
- ITS 0150 Networking I 4 cr
- ITS 0160 Networking II 3 cr
- ITS 0170 Computer Peripheral Equipment 3 cr
- ITS 0180 Network Operating Systems 3 cr
- ITS 0200 Data Cabling 3 cr
- ITS 0210 Workplace Relations Practicum 2 cr
- ITS 0220 Networking III 3 cr
- ITS 0230 Wireless Technologies 3 cr
- ITS 0240 Securing the LAN 4 cr
- ENG 1101 English Composition 3 cr
- TGE 0135 Work Place Relations 3 cr

TOTAL: 53 cr

Associate of Applied Science Degree: Information Technology Systems

(4 ½ Semesters)

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:
- ITS 0100 Computer System
- ITS 0110 Networking Basics 3 cr
- ITS 0120 Introduction to Unix 3 cr
- ITS 0130 Basic Electronic Concepts 3 cr
- ITS 0150 Networking I 4 cr
- ITS 0160 Networking II 3 cr
- ITS 0170 Computer Peripheral Equipment 3 cr
- ITS 0180 Network Operating Systems 3 cr
- ITS 0200 Data Cabling 3 cr
- ITS 0210 Workplace Relations Practicum 2 cr
- ITS 0220 Networking III 3 cr
- ITS 0230 Wireless Technologies 3 cr
- ITS 0240 Securing the LAN 4 cr
- TGE 0135 Work Place Relations 3 cr
- TGE 0158 Employment Strategies 2 cr

COMM 1101 Principles of Speech 3 cr

(contributes to AAS English/Communication Requirement; satisfies a General Education requirement)

TOTAL: 66 cr

ITS Courses

ITS 0100 Computer Systems and Troubleshooting 4 credits. 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 credits. 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 credits. 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 0130 Basic Electronic Concepts 3 credits. Introduction to basic electricity and electronics, including simple DC circuits, use of a Volt–Ohm–Meter, resistors, capacitors, conductors, insulators, Ohm’s law, diodes, and transistors. Math applications related to basic electronics include decimals, metrics and algebra formulas. Lecture/laboratory. F, S


ITS 0160 Networking II 3 credits. Introduces and extends the student’s knowledge and practical experience with configuring LANs, IP networks, switching theory and technologies, and network troubleshooting. Lecture/Laboratory. PREREQ: ITS 0110. F, S

ITS 0170 Computer Peripheral Equipment 3 credits. Operation of laser and digital printers including connections, theory of electronics, supplies, troubleshooting, repair, adjustments, cleaning methods and safety. Lecture/laboratory. Driver management, operation of input, output, and storage devices including security. PREREQ: ITS 0100. F, S
Instrumentation and Automation Engineering Technology

Program Coordinator and Master Instructor: Snarr
Instructors: Larson, Maclure, Shepherd, Tauscher

One Postsecondary Technical Certificate, two Associate of Applied Science Degrees, and two Bachelor of Applied Science Degree are available. This program offers two lines of study; one is instrumentation and automation engineering technology; the other is industrial controls.

Graduates will be able to: (1) solve technical problems typical of those encountered in the instrumentation and automation 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 hands-on experience setting up and troubleshooting three-phase motor controls, variable frequency drives, programmable logic controllers, sensors, relays, timers, solenoids, and HMI (Human Machine Interface) stations. They will be able to install and troubleshoot electronic devices that measure and control temperature, level, flow, pressure, motion, force, humidity, and acidity.

Students must have COMPASS test scores of 45 in Algebra and 68 in English to be accepted into the Instrumentation and Automation Engineering Technology program. Students wishing to enter Instrumentation and Automation are admitted using a competitive application process based on their first semester grade point average in program classes. 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 courses listed will be taught in sequential blocks of instruction. Successful completion of a course is required before the student may progress in the program. 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 may advance in the program.

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 Idaho State University and will count equally toward graduation.

Upon successful completion of ESET 0141, Applied Mathematics I, and ESET 0142, Applied Mathematics II, a student may enroll directly into an academic math course which requires MATH 1147 as a prerequisite. Students will receive five credits that apply toward the 120 credits required for a bachelor’s degree.

The Program Information Packet at http://www.isu.edu/ctech/programs.shtml shows descriptions of each program, course descriptions, course sequences, and cost of books, tools, uniforms, fees, and other estimated expenses.

Students receiving a AAS degree in Industrial Controls must concurrently receive an Electrical Journeyman AAS or have previously received an ISU Electrical Technician certificate or Electrical Journeyman AAS.

Postsecondary Technical Certificate: Instrumentation and Automation Assistant (1½ Semesters)

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>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESET 0103</td>
<td>Introduction to Electronics Theory</td>
<td>1 cr</td>
</tr>
<tr>
<td>ESET 0103L</td>
<td>Introduction to Electronics Laboratory</td>
<td>1 cr</td>
</tr>
<tr>
<td>ESET 0104</td>
<td>DC Electronics</td>
<td>2 cr</td>
</tr>
<tr>
<td>ESET 0104L</td>
<td>DC Electronics Laboratory</td>
<td>2 cr</td>
</tr>
<tr>
<td>ESET 0105</td>
<td>AC Electronics</td>
<td>4 cr</td>
</tr>
<tr>
<td>ESET 0105L</td>
<td>AC Electronics Laboratory</td>
<td>2 cr</td>
</tr>
<tr>
<td>ESET 0106</td>
<td>Electronics Principles</td>
<td>2 cr</td>
</tr>
<tr>
<td>INST 0140</td>
<td>Introduction to Motors and Motor Control</td>
<td>2 cr</td>
</tr>
<tr>
<td>INST 0220</td>
<td>Introduction to Programmable Logic Controllers</td>
<td>3 cr</td>
</tr>
<tr>
<td>INST 0240</td>
<td>Instrumentation Theory</td>
<td>2 cr</td>
</tr>
<tr>
<td>INST 0250</td>
<td>Laboratory</td>
<td>1 cr</td>
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<tr>
<td>INST 0251</td>
<td>Laboratory</td>
<td>1 cr</td>
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<tr>
<td>INST 0253</td>
<td>Laboratory</td>
<td>1 cr</td>
</tr>
<tr>
<td>INST 0254</td>
<td>Laboratory</td>
<td>1 cr</td>
</tr>
<tr>
<td>INST 0260</td>
<td>Electrical Systems Documentation and Standards</td>
<td>2 cr</td>
</tr>
</tbody>
</table>

**TOTAL: 77 or 78 cr**

### Associate of Applied Science Degree: Industrial Controls

**Industrial Controls**

(2 Semesters)

Industrial Controls is offered as a second AAS degree following completion of Program and General Education requirements in an Electrical Apprenticeship program. Students must have completed a minimum of 30 credits (or first three years of the Apprenticeship Program) towards the first AAS degree before being accepted into the Industrial Controls program.

**Required Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IC 0291</td>
<td>Industrial Controls Theory</td>
<td>8 cr</td>
</tr>
<tr>
<td>IC 0292</td>
<td>Industrial Controls Lab</td>
<td>5 cr</td>
</tr>
<tr>
<td>INST 0296</td>
<td>Process Measurement and Control Laboratory</td>
<td>8 cr</td>
</tr>
<tr>
<td>INST 0297</td>
<td>Process Measurement and Control Laboratory</td>
<td>5 cr</td>
</tr>
</tbody>
</table>

**Courses**

**IC Courses**

**IC 0291 Industrial Controls Theory 8 credits.** Students will study active electronic devices, power supplies, op amps, transistors, thyristor phase control, digital electronics, motor control, PLCs, variable frequency drives, print reading, timers, sensors, and relays. PREREQ: Electrical Technician Certificate or 2 years’ apprenticeship. COREQ: IC 0292.

**IC 0292 Industrial Controls Laboratory 5 credits.** Students will learn practical applications and exercises in electronic circuits, automated control, PLCs, timers, sensors, relays, and motor controls. PREREQ: Electrical Technician Certificate or 2 years’ apprenticeship. COREQ: IC 0291.

**INST Courses**

**INST 0140 Introduction to Motors and Motor Control Theory 2 credits.** 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. Su

**INST 0220 Introduction to Programmable Logic Controllers 3 credits.** Ladder format, I-O instructions, external devices, operating cycle, relays, timers, counters, sequencers, shift registers, analog applications, math blocks, and troubleshooting. F, S 14-18-59 Reactivate INST 0236 201410

**INST 0236 Applications of Electronic, Electrical, and Industrial Process Control Fundamentals 6 credits.** Application of electronic sensors, thyristor circuits, and networks. Electrical motor controls, 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 credits.** Basic concepts of process control devices, calibration and test equipment, diagrams and symbols. F, S, Su

**INST 0242 Theory 2 credits.** 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 credit.** 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 credit.** Setup, 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 credit.** 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 credit.** 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 credits.** Introduction to print reading, technical specifications, print annotation, report writing and electrical codes. F

**INST 0281 Electrical Automation Theory 8 credits.** Theory in application of control devices, sensors, timers, relays, programmable controllers, electrical code, print reading, single phase, split phase, three phase and variable frequency motor control, interfacing with devices used in automated manufacturing and process facilities. COREQ: INST 0282.

**INST 0282 Electrical Automation Laboratory 5 credits.** 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, adapting relay logic circuits to programmable controllers. COREQ: INST 0281.

**INST 0288 Directed Studies 1-8 credits.** 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. D
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/etch/lawenforcement.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.

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 15 deadline.

Physical Agility
Students must pass a physical agility test to be accepted into the program. This test includes running, push-up, sit-ups, and jumping.

Technical Certificate: Law Enforcement

Required Courses:
All courses must be completed with a minimum grade of “C-” to continue in the program.

LAWE 0170 Detention Procedures 1 3 cr
LAWE 0171 Cadet Practicum 3 cr
LAWE 0172 Health and Fitness I 3 cr
LAWE 0174 Human Relations 2 cr
LAWE 0175 Health and Fitness II 1 cr
LAWE 0176 Investigations I 3 cr
LAWE 0177 Investigations II 3 cr
LAWE 0178 Law I 3 cr
LAWE 0179 Law II 3 cr
LAWE 0180 Patrol Procedures I 3 cr
LAWE 0181 Patrol Procedures II 3 cr
LAWE 0182 Detention Procedures II 1 cr
LAWE 0183 Detention Procedures III 2 cr
LAWE 0188 Scenario Training 1 cr

TOTAL: 34 cr

Associate of Applied Science Degree:
Law Enforcement

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:
All Law Enforcement courses must be completed with a minimum grade of “C-” to continue in the program.

LAWE 0170 Detention Procedures I 3 cr
LAWE 0171 Cadet Practicum 3 cr
LAWE 0172 Health and Fitness I 3 cr
LAWE 0174 Human Relations 2 cr
LAWE 0175 Health and Fitness II 1 cr
LAWE 0176 Investigations I 3 cr
LAWE 0177 Investigations II 3 cr
LAWE 0178 Law I 3 cr
LAWE 0179 Law II 3 cr
LAWE 0180 Patrol Procedures I 3 cr
LAWE 0181 Patrol Procedures II 3 cr
LAWE 0182 Detention Procedures II 1 cr
LAWE 0183 Detention Procedures III 2 cr
LAWE 0188 Scenario Training 1 cr

TOTAL: 34 cr

Law Enforcement
2 to 4½ Semester Program
Program Coordinator and Master Instructor: Edwards

One Technical Certificate, an 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
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 credits.**
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 credits.**
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 credit.**
This course is a continuation of LAWE 0172. PREREQ: LAWE 0172. S, Su

**LAWE 0176 Investigations 13 credits.** 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 credits.** This course is a continuation of LAWE 0176. PREREQ: LAWE 0176. S, Su

**LAWE 0178 Law I 13 credits.** 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 credits.** This course is a continuation of LAWE 0178. PREREQ: LAWE 0178. S, Su

**LAWE 0180 Patrol Procedures I 3 credits.** 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 credits.** This course is a continuation of LAWE 0180. PREREQ: LAWE 0180. F, S

**LAWE 0182 Detention Procedures I 1 credit.**
Detention 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 credits.** 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 credit.**
Covers a study of crimes against property, crimes against persons, traffic stops, family disturbances, and introduction to modern law enforcement. F, S, Su

**LAWE 0185 Police Procedures 2 credits.**
Radio procedures, jail procedures, booking, fingerprinting, report writing and note taking, courtroom testimony, searching suspects and handling prisoners, and building searches. F, S, Su

**LAWE 0186 Firearms Proficiency 3 credits.**
Covers firearms training both in the classroom and on the firing range. Also covers use of deadly force. Su

**LAWE 0187 Enforcement Skills 1 credit.**
Curriculum components include hazardous materials, weapon retention, defensive tactics, and the Emergency Vehicle Operations course. Su

**LAWE 0188 Scenario Training 1 credit.**
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 credits.** 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 1 Officer.

**LAWE 0201 Law Enforcement Internship II 3 credits.** This course is a continuation of LAWE 0200. PREREQ: LAWE 0200.

**LAWE 0296 Independent Study 1-8 credits.** 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 credits.** 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

**Massage Therapy (3 1/2 Semesters)**
Coordinator/Instructor: Beck
Instructor: Gower

The Massage Therapy Program provides classroom and laboratory experiences, and on-site and offsite supervised practicum clinicals which prepare graduates to sit for the Federation of State Licensing Boards Massage and Bodywork Licensing Exam or the National Certification Board for Therapeutic Massage and Bodywork (NCBTMB) licensing exam or Massage and Bodywork Licensing Exam (MBLEX). Both allow students to apply for the State of Idaho Massage License through the Idaho Bureau of Occupational Licenses.

One Certificate, one Associate of Applied Science Degree (see Associate of Applied Science Degree in Business Technology), a Bachelor of Applied Technology Degree, and a Bachelor of Science in Health Science 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/massagetherapy.shtml](http://www.isu.edu/ctech/massagetherapy.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. The Technical Certificate curriculum represents 1199 hours of educational training.

### Technical Certificate: Massage Therapy

**Prerequisite Courses:**
(Courses must be completed prior to acceptance into the program.)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HO 0111</td>
<td>Introduction to Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>MTH 0100</td>
<td>Introduction to Massage Therapy</td>
<td>2</td>
</tr>
</tbody>
</table>

**Required Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HO 0106</td>
<td>Medical Terminology</td>
<td>2</td>
</tr>
<tr>
<td>HO 0208</td>
<td>Introduction to Pathology</td>
<td>3</td>
</tr>
<tr>
<td>MTH 0104</td>
<td>Introduction to Kinesiology</td>
<td>3</td>
</tr>
<tr>
<td>MTH 0105</td>
<td>Principles of Therapeutic Massage</td>
<td>2</td>
</tr>
<tr>
<td>MTH 0107</td>
<td>Professional Massage Techniques</td>
<td>6</td>
</tr>
<tr>
<td>MTH 0121</td>
<td>Massage Therapy Practicum*2</td>
<td>2</td>
</tr>
<tr>
<td>MTH 0140</td>
<td>Clinical Techniques and Assessment</td>
<td>4</td>
</tr>
<tr>
<td>MTH 0160</td>
<td>Advanced Therapeutic Massage Techniques</td>
<td>4</td>
</tr>
<tr>
<td>MTH 0170</td>
<td>Spa Techniques</td>
<td>2</td>
</tr>
<tr>
<td>MTH 0203, 0203L</td>
<td>Asian Bodywork</td>
<td>2</td>
</tr>
<tr>
<td>MTH 0210</td>
<td>Theory and Techniques</td>
<td>1</td>
</tr>
<tr>
<td>MTH 0211</td>
<td>Business Skills for Massage</td>
<td>2</td>
</tr>
<tr>
<td>MTH 0221</td>
<td>Massage Therapy Internship</td>
<td>2</td>
</tr>
<tr>
<td>DAAC and/or PEAC Body/Mind Integrative Classes (see list of recommended classes below)</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

*This is a 1-credit course that is repeated for a total of 2 credits.*
**Associate of Applied Science Degree:**

**Massage Therapy**

**Prerequisite Courses:**

(Courses must be completed prior to acceptance into the program.)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HO 0111</td>
<td>Introduction to Anatomy and Physiology</td>
<td>4 cr</td>
</tr>
<tr>
<td>MSTH 0100</td>
<td>Introduction to Massage Therapy</td>
<td>2 cr</td>
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</table>

**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:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HO 0106</td>
<td>Medical Terminology</td>
<td>2 cr</td>
</tr>
<tr>
<td>HO 0208</td>
<td>Introduction to Pathology</td>
<td>3 cr</td>
</tr>
<tr>
<td>MSTH 0104</td>
<td>Introduction to Kinesiology</td>
<td>3 cr</td>
</tr>
<tr>
<td>MSTH 0105</td>
<td>Principles of Therapeutic Massage</td>
<td>2 cr</td>
</tr>
<tr>
<td>MSTH 0107</td>
<td>Professional Massage Techniques</td>
<td>6 cr</td>
</tr>
<tr>
<td>MSTH 0121</td>
<td>Massage Therapy Practicum*</td>
<td>2 cr</td>
</tr>
<tr>
<td>MSTH 0140</td>
<td>Clinical Techniques and Assessment</td>
<td>4 cr</td>
</tr>
<tr>
<td>MSTH 0160</td>
<td>Advanced Therapeutic Massage Techniques</td>
<td>4 cr</td>
</tr>
<tr>
<td>MSTH 0170</td>
<td>Spa Techniques</td>
<td>2 cr</td>
</tr>
<tr>
<td>MSTH 0203, 0203L</td>
<td>Asian Bodywork Theory and Techniques</td>
<td>1 cr</td>
</tr>
<tr>
<td>MSTH 0210</td>
<td>Business Skills for Massage 1 credit</td>
<td>2 cr</td>
</tr>
<tr>
<td>MSTH 0221</td>
<td>Massage Therapy Internship 2 credits</td>
<td>2 cr</td>
</tr>
<tr>
<td>DAAC and/or PEAC Body/Mind Integrative Classes</td>
<td></td>
<td>2 cr</td>
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</table>

**Choose 3 credits from the following:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BT 0120</td>
<td>Concepts of Accounting</td>
<td>3 cr</td>
</tr>
<tr>
<td>BT 0144</td>
<td>Document Processing</td>
<td>3 cr</td>
</tr>
<tr>
<td>BT 0170</td>
<td>Introduction to Computers</td>
<td>3 cr</td>
</tr>
<tr>
<td>BT 0171</td>
<td>Computerized Accounting</td>
<td>3 cr</td>
</tr>
<tr>
<td>HO 0107</td>
<td>Medical Law and Ethics</td>
<td>3 cr</td>
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</tbody>
</table>

**Total: 59 cr**

*This is a 1-credit course that is repeated for 2 credits.

**Choose 2 CREDITS from the following Body/Mind Integrative Fitness Classes:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAAC 0175</td>
<td>Dance Conditioning I - Pilates-Based</td>
<td>1 cr</td>
</tr>
<tr>
<td>DAAC 0176</td>
<td>Pilates - Dance Conditioning II</td>
<td>1 cr</td>
</tr>
<tr>
<td>PEAC 0120</td>
<td>Introduction to Pilates-Based Method</td>
<td>1 cr</td>
</tr>
<tr>
<td>PEAC 0121A</td>
<td>Beginning Pilates Matwork</td>
<td>1 cr</td>
</tr>
<tr>
<td>PEAC 0121B</td>
<td>Intermediate Pilates Matwork</td>
<td>1 cr</td>
</tr>
<tr>
<td>PEAC 0122A</td>
<td>Beginning Yoga</td>
<td>1 cr</td>
</tr>
<tr>
<td>PEAC 0122B</td>
<td>Intermediate Yoga</td>
<td>1 cr</td>
</tr>
<tr>
<td>PEAC 0132</td>
<td>Individualized</td>
<td>1 cr</td>
</tr>
<tr>
<td>PEAC 0133</td>
<td>Physical Education</td>
<td>1 cr</td>
</tr>
</tbody>
</table>

**Choose 2 CREDITS from the following:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEAC 0134A</td>
<td>Beginning Weight Training</td>
<td>1 cr</td>
</tr>
<tr>
<td>PEAC 0134B</td>
<td>Intermediate Weight Training</td>
<td>1 cr</td>
</tr>
<tr>
<td>PEAC 0135A</td>
<td>Introduction to Hatha Yoga</td>
<td>1 cr</td>
</tr>
<tr>
<td>PEAC 0135B</td>
<td>Intermediate Hatha Yoga</td>
<td>1 cr</td>
</tr>
<tr>
<td>PEAC 0136</td>
<td>Target Fit (TM) Conditioning</td>
<td>1 cr</td>
</tr>
<tr>
<td>PEAC 0143A</td>
<td>Beginning Judo</td>
<td>1 cr</td>
</tr>
<tr>
<td>PEAC 0143B</td>
<td>Intermediate Judo</td>
<td>1 cr</td>
</tr>
<tr>
<td>PEAC 0143C</td>
<td>Advanced Judo</td>
<td>1 cr</td>
</tr>
</tbody>
</table>

**MSTH Courses**

- **MSTH 0100 Massage Therapy Career Exploration 2 credits.** 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 credits.** 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 credits.** 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 4 credits.** Classification of movements, body mechanics, exercise for the practitioner, draping, basic and professional massage routines, hydrotherapy, and working with special populations. Foundations for developing massage practitioner skills. PREREQ: Admission to MSTH program. F

**MSTH 0121 Massage Therapy Practicum I 1 credit.** Students perform massage in a supervised clinical setting. May be repeated for up to 2 credits. PREREQ: Admission to MSTH program. F, S

**MSTH 0140 Clinical Techniques and Assessment 4 credits.** Clinical massage techniques and assessment. PREREQ: Admission to MSTH program. S

**MSTH 0160 Advanced Therapeutic Massage Techniques 4 credits.** Exploration of various advanced massage techniques. PREREQ: Admission to MSTH program. S

**MSTH 0170 Spa Techniques 2 credits.** Introduction to spa techniques and the spa environment. PREREQ: Admission to MSTH program. Su

**MSTH 0211 Massage Therapy Practicum II 1 credit.** Students perform massage in a supervised clinical setting. May be repeated for up to 2 credits. PREREQ: Admission to MSTH program. F, S

**MSTH 0212 Massage Therapy Internship 2 credits.** Students are supervised in an actual massage therapy environment 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 0221 Massage Therapy Internship 2 credits.** Students are supervised in an actual work environment performing massage therapy skills to gain work readiness skills. Su

**MSTH 0296 Independent Study 1-8 credits.** 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 instructor. D

**MSTH 0298 Special Topics 1-8 credits.** 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.

**Medical Assisting**

Program Coordinator and Master Instructor: Bird

Instructor: Terrell

5 Semester Program for full-time students.

One Associate of Applied Science Degree, one Bachelor of Science in Health Science Degree, and one Bachelor of Applied Technology Degree are available.

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 Educational Programs (CAAHEP, www.caahep.org), upon the recommendation of the Curriculum Review Board of the American Association of Medical Assistants Endowment (AAMAE). The program’s accreditation status is current until September, 2016.

Commission on Accreditation of Allied Health Education Programs
1361 Park St Clearwater FL 33756
(727) 210-2350 Fax: (727) 210-2354
NOTE: Graduates will be eligible to take the national certification exam for the Certified Medical Assistant (CMA). Individuals who have been found guilty of a felony, or pleaded guilty to a felony, are not eligible to take the CMA Exam. However, the Certifying Board may grant a waiver based upon mitigating circumstances.

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 descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to http://www.isu.edu/cetech/medicalassisting.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 Applied Science Degree:**

**Medical Assisting**

**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. The General Education courses taken in conjunction with a bachelor’s degree must have an accumulated GPA of 2.0 or better.

**Required Courses:**

The following courses must be completed with a “C” or better in each course.

- HIT 0208  ICD-10 Coding 3 cr
- HIT 0209  CPT Coding 3 cr
- HO 0106  Medical Terminology 2 cr
- HO 0107  Medical Law and Ethics 3 cr
- HO 0208  Introduction to Pathology 3 cr
- HO 0209  Basic Principles of Drugs and their Uses 3 cr
- MA 0104  Introduction to Medical Assisting: Administrative 4 cr
- MA 0200  Clinical Medical Assisting I 4 cr
- MA 0202  Phlebotomy and Administration of Medications 4 cr
- MA 0203  Computers in Medical Assisting: Administrative 2 cr
- MA 0204  Medical Externship 6 cr
- MA 0204S  Clinical Externship Seminar 1 cr
- MA 0205  Clinical Medical Assisting II 4 cr
- MA 0206  Administrative Externship 2 cr
- MA 0206S  Administrative Seminar 1 cr
- MA 0207  Professional Development 1 cr

- MA 0208  Clinical Medical Assisting III 4 cr
- HO 0111  Introduction to Anatomy and Physiology 4 cr
- BIOL 3301, 3301L, 3302, 3302L  Anatomy and Physiology, and Labs 8 cr
- BIOL 1101, 1101L, Biology I and Lab 4 cr
- (partially satisfies General Education Objective 5)
- ENGL 1101  English Composition 3 cr
- (contributes to AAS Communication requirement)
- ENGL 1102  Critical Reading and Writing 3 cr
- MATH 1123  Mathematics in Modern Society 3 cr
- (satisfies General Education Objective 3)
- PSYC 1101  Introduction to General Psychology 3 cr
- (partially satisfies General Education Objective 6)

**TOTAL:** 72-77 cr

**MA Courses**

**MA 0041 Introduction to Medical Assisting: Administrative 4 credits.** 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.

**MA 0202 Administration of Medications and Phlebotomy 4 credits.** 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.

**MA 0203 Computers in Medical Assisting: Administrative 6 credits.** 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.

**MA 0204 Clinical Externship 6 credits.** 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 business management staff. Graded S/U. PREREQ: All other MA required courses (including general education and HO courses).

**MA 0205 Clinical Medical Assisting II 4 credits.** 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.

**MA 0206 Administrative Externship 2 credits.** Application of the principles and practice of the administrative clinical 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).

**MA 0206S Externship Seminar 1 credit.** 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).

**MA 0207 Professional Development 1 credit.** Preparation for transition from school to the workplace. PREREQ: Previous semester course sequence, and BT 0170.

**MA 0208 Clinical Medical Assisting III 4 credits.** Vital signs, aspesis, 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.

**MA 0209 Independent Study 1-8 credits.** 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.

**MA 0209S Special Topics 1-8 credits.** 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.
Paralegal Studies
4 Semesters

Interim Program Coordinator
and Instructor: Huneycutt

An Associate of Applied Science Degree in Paralegal Studies and a Bachelor of Applied Technology 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.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. A grade of “C” or better in all courses of a chosen option is required for graduation. If a “C” or better is not achieved in a required class, the student may repeat the class only one time.

Associate of Applied Science Degree: Paralegal Studies
(4 Semesters)

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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 1101</td>
<td>Digital Resources</td>
<td>3 cr</td>
</tr>
<tr>
<td>BT 0170</td>
<td>Introduction to Computers</td>
<td>3 cr</td>
</tr>
<tr>
<td>PARA 0110</td>
<td>Introduction to Paralegal Studies</td>
<td>3 cr</td>
</tr>
<tr>
<td>PARA 0111</td>
<td>Ethics and Professionalism</td>
<td>3 cr</td>
</tr>
<tr>
<td>PARA 0113</td>
<td>Contract Law</td>
<td>3 cr</td>
</tr>
<tr>
<td>PARA 0115</td>
<td>Property Law</td>
<td>3 cr</td>
</tr>
<tr>
<td>PARA 0116</td>
<td>Tort Law</td>
<td>3 cr</td>
</tr>
<tr>
<td>PARA 0117</td>
<td>Criminal Law and Procedure</td>
<td>3 cr</td>
</tr>
<tr>
<td>PARA 0121</td>
<td>Law Office Management</td>
<td>3 cr</td>
</tr>
<tr>
<td>PARA 0122</td>
<td>Legal Research, Analysis, and Writing I</td>
<td>3 cr</td>
</tr>
<tr>
<td>PARA 0212</td>
<td>Pre-Trial Civil Litigation and Procedure</td>
<td>3 cr</td>
</tr>
<tr>
<td>PARA 0222</td>
<td>Legal Research, Analysis, and Writing II</td>
<td>3 cr</td>
</tr>
<tr>
<td>PARA 0230</td>
<td>Paralegal Internship</td>
<td>4 cr</td>
</tr>
<tr>
<td>COMM 1101</td>
<td>Principles of Speech</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 1102</td>
<td>Critical Reading and Writing</td>
<td>3 cr</td>
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</tbody>
</table>

Plus Six Credits from the Following Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PARA 0112</td>
<td>Estates, Wills, and Trusts</td>
<td>3 cr</td>
</tr>
<tr>
<td>PARA 0114</td>
<td>Family Law</td>
<td>3 cr</td>
</tr>
<tr>
<td>PARA 0118</td>
<td>Business Organizations</td>
<td>3 cr</td>
</tr>
<tr>
<td>PARA 0213</td>
<td>Post-Trial Civil Litigation and Procedure</td>
<td>3 cr</td>
</tr>
<tr>
<td>PARA 2015</td>
<td>Debtor/Creditor Rights and Bankruptcy Law</td>
<td>3 cr</td>
</tr>
<tr>
<td>PARA 0223</td>
<td>Legal Research, Analysis, and Writing III</td>
<td>3 cr</td>
</tr>
<tr>
<td>PARA 0298</td>
<td>Independent</td>
<td>1-8 cr</td>
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</table>

TOTAL: 61 cr

PARA Courses

PARA 0110 Introduction to Paralegal Studies
3 credits
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.

PARA 0111 Ethics and Professionalism
3 credits
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.

PARA 0112 Estates, Wills and Trusts
3 credits
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.

PARA 0113 Contract Law
3 credits
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.

PARA 0114 Family Law
3 credits
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.

PARA 0115 Property Law
3 credits
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.

PARA 0116 Tort Law
3 credits
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. Defense to and damages recoverable for a tort claim. Personal injury litigation and worker’s compensation will be discussed in depth.

PARA 0117 Criminal Law
3 credits
Statutory and common law crimes against person, property, and society; the elements required to prove a crime; and the defenses available to defendants. Criminal procedure and statutory standards for law enforcement practices, plea negotiation, trial, sentencing, and appeal. Conducting preliminary factual investigation and other pre-trial work.

PARA 0118 Business Organizations
3 credits
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.

PARA 0211 Law Office Management
3 credits
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.

PARA 0212 Legal Research, Analysis, and Writing
3 credits
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 and drafting.

PREREQ: BT 0170 or CIS 1101, ENGL 1101, and PARA 0110.

PARA 0213 Pre-Trial Civil Litigation and Procedure
3 credits
Based on a fictional civil lawsuit, students perform tasks of a paralegal at every stage of pre-trial litigation, including initial client contact, investigation and identification of claims and issues, legal research, preparation and filing of all appropriate documents.

PREREQ: PARA 0212.

The role of the paralegal in the area of domestic law is emphasized.

PARA 0215 Property Law
3 credits
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.

PARA 0216 Tort Law
3 credits
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. Defense to and damages recoverable for a tort claim. Personal injury litigation and worker’s compensation will be discussed in depth.

PARA 0217 Criminal Law
3 credits
Statutory and common law crimes against person, property, and society; the elements required to prove a crime; and the defenses available to defendants. Criminal procedure and statutory standards for law enforcement practices, plea negotiation, trial, sentencing, and appeal. Conducting preliminary factual investigation and other pre-trial work.

PARA 0218 Business Organizations
3 credits
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.

PARA 0219 Law Office Management
3 credits
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.

PARA 0220 Legal Research, Analysis, and Writing
3 credits
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 and drafting.

PREREQ: BT 0170 or CIS 1101, ENGL 1101, and PARA 0110.

PARA 0221 Pre-Trial Civil Litigation and Procedure
3 credits
Based on a fictional civil lawsuit, students perform tasks of a paralegal at every stage of pre-trial litigation, including initial client contact, investigation and identification of claims and issues, legal research, preparation and filing of all appropriate documents.

PREREQ: PARA 0212.
Physical Therapist Assistant

4½ Semesters
Coordinator/Advanced Instructor: Jernigan
Instructor: Lippiello

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, they 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 graduate might also assist the therapist in performing tests and 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). Graduates of the program will be eligible to sit for the national examination for registration/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/physicaltherapistassistant.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 Applied Science Degree: Physical Therapist Assistant

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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HO 0106</td>
<td>Medical Terminology</td>
<td>2 cr</td>
</tr>
<tr>
<td>HO 0107</td>
<td>Medical Law and Ethics</td>
<td>3 cr</td>
</tr>
<tr>
<td>HO 0111</td>
<td>Introduction to Anatomy and Physiology</td>
<td>4 cr</td>
</tr>
<tr>
<td>BHL 3301,3301L</td>
<td>Anatomy and Physiology, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BHL 3302,3302L</td>
<td>Anatomy and Physiology, and Lab*</td>
<td>4 cr</td>
</tr>
<tr>
<td>HO 0208</td>
<td>Introduction to Pathology</td>
<td>3 cr</td>
</tr>
<tr>
<td>BHL 3305</td>
<td>Introduction to Pathobiology</td>
<td>3 cr</td>
</tr>
<tr>
<td>PTA 0104</td>
<td>Introduction to Kinesiology</td>
<td>2 cr</td>
</tr>
<tr>
<td>PTA 0105</td>
<td>Introduction to Physical Therapy</td>
<td>1 cr</td>
</tr>
<tr>
<td>PTA 0106</td>
<td>Applied Kinesiology</td>
<td>4 cr</td>
</tr>
<tr>
<td>PTA 0107</td>
<td>Procedures I</td>
<td>5 cr</td>
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<tr>
<td>PTA 0201</td>
<td>Procedures II</td>
<td>5 cr</td>
</tr>
<tr>
<td>PTA 0202</td>
<td>Physical Therapy Assessment</td>
<td>4 cr</td>
</tr>
<tr>
<td>PTA 0203</td>
<td>Therapeutic Exercise</td>
<td>5 cr</td>
</tr>
<tr>
<td>PTA 0204</td>
<td>Seminar</td>
<td>3 cr</td>
</tr>
<tr>
<td>PTA 0213</td>
<td>Clinical Affiliation I</td>
<td>7 cr</td>
</tr>
<tr>
<td>PTA 0214</td>
<td>Clinical Affiliation II</td>
<td>7 cr</td>
</tr>
<tr>
<td>BHL 1101,1101L</td>
<td>Biology I, and Lab</td>
<td>4 cr</td>
</tr>
</tbody>
</table>

(Partially satisfies Objective 5)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENGL 1102</td>
<td>Critical Reading and Writing</td>
<td>3 cr</td>
</tr>
<tr>
<td>PSYC 1101</td>
<td>Introduction to General Psychology</td>
<td>3 cr</td>
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</tbody>
</table>

(Total: 71 or 75 cr)

PTA Courses

For course descriptions of the academic courses required by the Physical Therapist Assistant A.A.S. Degree, see the College of Arts and Letters.

PTA Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTA 0104</td>
<td>Introduction to Kinesiology</td>
<td>2 cr</td>
</tr>
</tbody>
</table>

(Fundamental principles of anatomical terminology, osteology, arthrology. Basic observation and palpation skills required. Equivalent to MSTM 0104. PREREQ: Admission to the MSTH or PTA program.)
PTA 0105 Introduction to Physical Therapy 1 credit. 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. PREREQ: PTA 0104 or permission of instructor. F

PTA 0106 Applied Kinesiology 4 credits. 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 credits. Procedures related to physical therapy treatment, including universal precautions, principles of physics, anatomy, kinesiology, thermal agents, ultrasound, vital signs and their use in therapeutics. Also, transfer training, ROM, ultrasound, wheelchair, and wound management. PREREQ: Second year student in good standing, and PTA 0105. S

PTA 0201 Procedures II 5 credits. A continuation of PTA0107, 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 credits. 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 credits. Therapeutic exercise principles and practices related to patient treatment. Includes stretching, proprioceptive neuromuscular facilitation, other rehab techniques like NDT, Rood, Brunnstrom, 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 credits. 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, PTA 0104, PTA 0105, PTA 0106, PTA 0107, PTA 0201, and PTA 0202. S

PTA 0213 Clinical Affiliation I 7 credits. 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 credits. 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, Second year student in good standing, PTA 0201, PTA 0202, PTA 0203, PTA 0204, and PTA 0213. S

PTA 0296 Independent Study 1-8 credits. 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

PTA0298 Special Topics 1-8 credits. 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

Practical Nursing

2½ Semester Program

Director and Assistant Professor: Pearce Faculty: Benedetti, Briggs, Jensen, McBride

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.

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/practicalnursing.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.

Advanced Technical Certificate: Practical Nursing

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>
</tr>
</thead>
<tbody>
<tr>
<td>BT 0170</td>
<td>Introduction to Computers</td>
<td>3 cr</td>
</tr>
<tr>
<td>CIS 1101,1101L</td>
<td>Digital Resources for Information Literacy, and Lab</td>
<td>3 cr</td>
</tr>
<tr>
<td>HO 0106</td>
<td>Medical Terminology</td>
<td>2 cr</td>
</tr>
<tr>
<td>HCA/HE 2210</td>
<td>Medical Terminology and Communication</td>
<td>2 cr</td>
</tr>
<tr>
<td>HO 0111</td>
<td>Introduction to Anatomy and Physiology</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 3301, 3301L, and BIOL 3302, 3302L</td>
<td>Anatomy and Physiology, and Labs</td>
<td>8 cr</td>
</tr>
<tr>
<td>NTD 3340</td>
<td>Nutrition</td>
<td>3 cr</td>
</tr>
<tr>
<td>PNUR 0124</td>
<td>Nutrition and Diet Therapy for the Practical Nurse</td>
<td>2 cr</td>
</tr>
<tr>
<td>PSYC 1101</td>
<td>Introduction to General Psychology</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Program Requirements:

PREREQUISITES TOTAL: 14, 15, 18 or 19 cr

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PNUR 0113</td>
<td>Medication Administration for Nursing</td>
<td>1 cr</td>
</tr>
<tr>
<td>PNUR 0114</td>
<td>Clinical Foundations of Nursing</td>
<td>3 cr</td>
</tr>
<tr>
<td>PNUR 0115</td>
<td>Professional Development Seminar</td>
<td>1 cr</td>
</tr>
<tr>
<td>PNUR 0123</td>
<td>Drug Therapy for the Practical Nurse</td>
<td>4 cr</td>
</tr>
<tr>
<td>PNUR 0125</td>
<td>Family Nursing for the Practical Nurse</td>
<td>3 cr</td>
</tr>
<tr>
<td>PNUR 0126, 0126L</td>
<td>Medical Surgical Nursing II, and Lab</td>
<td>5 cr</td>
</tr>
<tr>
<td>PNUR 0131</td>
<td>Clinical Foundations of Nursing III</td>
<td>2 cr</td>
</tr>
<tr>
<td>PNUR 0133, 0133L</td>
<td>Intravenous Therapy for the Practical Nurse, and Lab</td>
<td>2 cr</td>
</tr>
<tr>
<td>PNUR 0137</td>
<td>Clinical Foundations of Nursing IV</td>
<td>1 cr</td>
</tr>
<tr>
<td>PNUR 0139</td>
<td>Nursing Care of the Aged and Community-Based Nursing</td>
<td>3 cr</td>
</tr>
<tr>
<td>PNUR 0140</td>
<td>Management for the Practical Nurse</td>
<td>2 cr</td>
</tr>
</tbody>
</table>

TOTAL (minimum): 53 cr
PNUR Courses

Every student is required to earn a grade of “C-” or better in every class to be eligible for a certificate.

PNUR 0110 Basic Foundations of Nursing 3 credits. 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 PNUR Program. COREQ: PNUR 0110L. F

PNUR 0110L Basic Foundations of Nursing Lab 1 credit. Practical application of the nursing process and basic clinical skills which provide the foundation for nursing practice. COREQ: PNUR 0110 or permission of instructor. F

PNUR 0112 Medical Surgical Nursing I 3 credits. Principles of practical nursing care for the ill adult. COREQ: PNUR 0110L or permission of instructor. F

PNUR 0113 Medication Administration for Practical Nursing 1 credit. The basics of safe medication administration, including math calculations and proper procedures. The medication calculation 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. Su

PNUR 0114 Clinical Foundations of Nursing I 3 credits. 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 I 1 credit. Professional development to increase understanding of the practical nurse’s role and responsibilities. COREQ: PNUR 0110 or permission of instructor. F

PNUR 0121 Clinical Foundations of Nursing II 4 credits. 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 credits. 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 credits. Basic nutrition principles and the application of diet therapy for health promotion. D


PNUR 0126 Medical Surgical Nursing II 4 credits. Principles of practical nursing care for the ill adult. PREREQ OR COREQ: PNUR 0112. COREQ: PNUR 0126L. S

PNUR 0126L Medical Surgical Nursing Lab I 1 credit. 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 credits. 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 credit. 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 0135L. S

PNUR 0135L Intravenous Therapy Lab for the Practical Nurse I 1 credit. 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 credit. 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 credits. 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 credits. 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 0296 Independent Study I 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U; or may be letter-graded. PREREQ: Permission of the instructor. D

PNUR 0298 Special Topics I 1-8 credits. 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

Respiratory Therapy

Semester Program

Coordinator/Instructor: Blakeman
Clinical Director/Instructor: Pratoomratana

7 Semester Program for full-time students. 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 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.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.

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:

   BIOL 2221,2221L. Introduction to Microbiology, and Lab 4 cr
   CHEM 1101. Introduction to General Chemistry 3 cr
   CHEM 2301,2301L. Anatomy and Physiology, and Lab 4 cr
   CHEM 3302,3302L. Anatomy and Physiology, and Lab 4 cr

   (prerequisite courses satisfy Objective 5)
RESP Courses
RESP 2200 Introduction to Respiratory Care 3 credits. Introduction to the care of pulmonary patients. Focus on skills required and methods to manage cardiopulmonary problems. Includes clinical practice of procedures and skills. PREREQ: HE/HCA 2210 and permission of instructor. COREQ: RESP 2200L. F
RESP 2200L Introduction to Respiratory Care Lab 1 credit. Introduction to the care of pulmonary patients utilizing skills and methods required to manage cardiopulmonary problems. PREREQ: CPR Healthcare Provider course.; HO 0106; and acceptance into RESP program. COREQ: RESP 2200. F
RESP 2211 Pharmacotherapy for Respiratory Therapists 2 credits. Study of therapeutic drug administration for respiratory therapists. Special emphasis on safety issues, sources of drug information, and application to respiratory care practice. PREREQ: Permission of instructor. COREQ: RESP 2200. F
RESP 2214 Introduction to Pulmonary Disease 4 credits. 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 credits. Holistic approach to assessment of adult and pediatric patients in acute care settings. Special emphasis on assessment of the cardiopulmonary function. PREREQ: RESP 2200 and RESP 2214. Su
RESP 2232 Patient Assessment II 2 credits. 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 credits. Holistic approach to the management of adult and pediatric patients in sub-acute settings. Special emphasis on management of cardiopulmonary problems. PREREQ: RESP 2211 and RESP 2214. F
RESP 2296 Independent Study 1-8 credits. 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 credits. 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 credits. Exploration of operational characteristics of critical care, home care, transport, and neonatal ventilators. Includes clinical practice of procedures and skills. PREREQ: RESP 2200 and RESP 2200L. COREQ: RESP 2214 and RESP 3301L. S
RESP 3301L Mechanical Ventilators Lab 1 credit. 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 and RESP 2200L. COREQ: RESP 3301. S
RESP 3310 Case Management II 2 credits. 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 credits. 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 credits. Focus on conducting respiratory care in the acute setting. PREREQ: RESP 3320. Su
RESP 3330 Clinical Practice of Therapeutic Procedures IV 5 credits. Focus on conducting respiratory care in the acute and intensive care settings. PREREQ: RESP 3330. S

Associate of Science Degree: Respiratory Therapy

Additional General Education and Other Courses:
- BIOL 3301, 3301L Anatomy and Physiology, and Lab* 4 cr
- BIOL 3302, 3302L Anatomy and Physiology, and Lab* 4 cr
- ENGL 101 Critical Reading and Writing 3 cr (satisfies Objective 1)
- Objective 3 3 cr
- Objective 4 (min) 6 cr
- One Objective 6 course with different prefix from that chosen earlier 3 cr
- Objective 9 (min) 3 cr
*If not taken prior to admission--both 3301 and 3302 are required.

Respiratory Therapy Courses
RESP 2200, 2200L Introduction to Respiratory Care and Lab 4 cr
RESP 2211 Pharmacotherapy for Respiratory Therapists 2 cr
RESP 2214 Introduction to Pulmonary Disease 4 cr
RESP 2231 Patient Assessment I 2 cr
RESP 2232 Patient Assessment II 2 cr
RESP 2280 Case Management I 2 cr
RESP 3301, 3301L Mechanical Ventilators, and Lab 4 cr
RESP 3310 Case Management II 2 cr
RESP 3320 Clinical Practice of Therapeutic Procedures I 5 cr
RESP 3325 Clinical Practice of Therapeutic Procedures II 3 cr
RESP 3330 Clinical Practice of Therapeutic Procedures III 5 cr
RESP 3335 Clinical Practice of Therapeutic Procedures IV 5 cr
TOTAL: 87 to 94 cr

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.

College of Technology

309
### Robotics and Communication Systems Engineering Technology

**6 to 6½ Semesters**

Coordinator and Instructor: Slack
Assistant Professor: Norton
Master Instructor: Womack
Senior Instructor: Dutschke
Instructors: Call, Larson, Shroll

One Advanced Technical Certificate, 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.

### Technical Certificate: Laser/Electro-Optics Technology

The following courses are required in addition to the completion of either the Advanced Technical Certificate or the Associate of Applied Science Degree for a certificate under the Robotics and Communication Systems Engineering Technology Program:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCET 0331</td>
<td>Laser Systems/Optics Theory</td>
<td>4 cr</td>
</tr>
<tr>
<td>RCET 0332</td>
<td>Laser Systems/Optics Laboratory</td>
<td>4 cr</td>
</tr>
</tbody>
</table>

**TOTAL:** 8 cr

The courses listed above 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.

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.

### Advanced Technical Certificate: Robotics and Communication Systems Engineering Technology

**6 Semesters**

**Required Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCET 0141</td>
<td>Applied Mathematics I</td>
<td>4 cr</td>
</tr>
<tr>
<td>RCET 0142</td>
<td>Applied Mathematics II</td>
<td>4 cr</td>
</tr>
<tr>
<td>RCET 0153</td>
<td>Electronic Theory</td>
<td>5 cr</td>
</tr>
<tr>
<td>RCET 0154</td>
<td>Electronic Control Devices Theory</td>
<td>5 cr</td>
</tr>
<tr>
<td>RCET 0155</td>
<td>Electronic Lab</td>
<td>5 cr</td>
</tr>
<tr>
<td>RCET 0156</td>
<td>Electronic Control Devices Lab</td>
<td>5 cr</td>
</tr>
<tr>
<td>RCET 0271</td>
<td>Introduction to Lab Simulation</td>
<td>2 cr</td>
</tr>
<tr>
<td>RCET 0251</td>
<td>Systems Analog and Digital Theory</td>
<td>7 cr</td>
</tr>
<tr>
<td>RCET 0253</td>
<td>Systems Analog and Digital Laboratory</td>
<td>5 cr</td>
</tr>
<tr>
<td>RCET 0264</td>
<td>Introductory Calculus</td>
<td>4 cr</td>
</tr>
<tr>
<td>RCET 0265</td>
<td>Computer Fundamentals and Introduction to Programming</td>
<td>4 cr</td>
</tr>
<tr>
<td>RCET 0267</td>
<td>Radio Frequency Transmission Theory</td>
<td>7 cr</td>
</tr>
<tr>
<td>RCET 0268</td>
<td>Radio Frequency Transmission Laboratory</td>
<td>5 cr</td>
</tr>
<tr>
<td>RCET 0270</td>
<td>Electronic Drafting II</td>
<td>2 cr</td>
</tr>
<tr>
<td>RCET 0371</td>
<td>Advanced Math for Electronics</td>
<td>4 cr</td>
</tr>
<tr>
<td>RCET 0372</td>
<td>Calculus (satisfies a General Education Requirement)</td>
<td>4 cr</td>
</tr>
<tr>
<td>RCET 0373</td>
<td>Advanced Digital Theory (satisfies a General Education Requirement)</td>
<td>5 cr</td>
</tr>
<tr>
<td>RCET 0374</td>
<td>Advanced Pulse Theory</td>
<td>5 cr</td>
</tr>
<tr>
<td>RCET 0375</td>
<td>Advanced Digital Laboratory</td>
<td>5 cr</td>
</tr>
<tr>
<td>RCET 0376</td>
<td>Advanced Pulse Laboratory</td>
<td>5 cr</td>
</tr>
<tr>
<td>TGE 0158</td>
<td>Employment Strategies</td>
<td>2 cr</td>
</tr>
<tr>
<td>ENGL 1101</td>
<td>English Composition</td>
<td>3 cr</td>
</tr>
<tr>
<td>COMM 1101</td>
<td>Principles of Speech</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHYS 1101</td>
<td>Essentials of Physics, and Lab</td>
<td>4 cr</td>
</tr>
</tbody>
</table>

**TOTAL:** 104 cr

### Associate of Applied Science Degree: Robotics and Communication Systems Engineering Technology (6 Semesters)

**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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<tr>
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<th>Credits</th>
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<tr>
<td>RCET 0141</td>
<td>Applied Mathematics I</td>
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<td>Electronic Theory</td>
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<td>RCET 0154</td>
<td>Electronic Control Devices Theory</td>
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<td>RCET 0155</td>
<td>Electronic Lab</td>
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<td>TGE 0158</td>
<td>Employment Strategies</td>
<td>2 cr</td>
</tr>
</tbody>
</table>

**TOTAL:** 107 cr

### RCET Courses

Official articulation agreements have been established with other Idaho 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 at Idaho State University and will count equally toward graduation.

Based on keyboarding skills, students may be required to take a 1 credit Keyboarding class in order to meet the competencies of the program.
RCET 0141 Applied Mathematics I 4 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. 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 credits. Computer-aided drafting with emphasis on schematic capture with component information system, and printed circuit board layout. F, S

RCET 0271 Introduction to Lab Simulation Software 2 credits. Introduction to lab simulation software environments used to build data acquisition and instrument control applications. F, S

RCET 0296 Independent Study 1-8 credits. 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 the instructor. D

RCET 0298 Special Topics 1-8 credits. 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 0332 Laser Systems/Optics Laboratory 4 credits. 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 credits. 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. PREREQ: RCET 0264. F, S

RCET 0373 Advanced Digital Theory 5 credits. 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 credits. 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 credits. Practical application of topics covered in RCET 0371 and 0373 while building, programming, and troubleshooting microprocessor and microcontroller based systems. F, S

RCET 0376 Advanced Pulse Laboratory 5 credits. 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 0384 Advanced Laser Systems/Optics Laboratory 3 credits. Practical application of advanced theory and analysis in analyzing laser/optics systems. PREREQ: RCET 0331 and RCET 0332. D
## Welding

(2 to 4 Semester Program Options)

Program Coordinator and Master Instructor: Humphreys

Advanced Instructors: Bloxham, Erickson Emeritus Faculty: Rost

One 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.shtml.

This program requires students to achieve a grade of no less that a C (2.0) before continuing in the program.

### Technical Certificate:

**Welder General**

(2 Semesters)

<table>
<thead>
<tr>
<th>Required Courses:</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD 0131 Welding Practice I 12 cr</td>
</tr>
<tr>
<td>WELD 0132 Welding Practice II 12 cr</td>
</tr>
<tr>
<td>WELD 0140 Welding Theory 2 cr</td>
</tr>
<tr>
<td>WELD 0141 Mechanical Drawing 2 cr</td>
</tr>
<tr>
<td>WELD 0142 Blueprint Reading 2 cr</td>
</tr>
<tr>
<td>WELD 0143 Shop Math 2 cr</td>
</tr>
<tr>
<td>WELD 0231 Welding Practice III 13 cr</td>
</tr>
<tr>
<td>WELD 0232 Welding Practice IV 13 cr</td>
</tr>
<tr>
<td>WELD 0241 Metal Layout 3 cr</td>
</tr>
<tr>
<td>WELD 0243 Shop Math II 3 cr</td>
</tr>
</tbody>
</table>

**TOTAL: 64 cr**

### Associate of Applied Science Degree:

**Welder-Fitter**

### 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:

<table>
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<tr>
<th>Course</th>
<th>Description</th>
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<tbody>
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<td>WELD 0131</td>
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<tr>
<td>WELD 0132</td>
<td>Welding Practice II 12 cr</td>
</tr>
<tr>
<td>WELD 0140</td>
<td>Welding Theory 2 cr</td>
</tr>
<tr>
<td>WELD 0141</td>
<td>Mechanical Drawing 2 cr</td>
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<tr>
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<td>WELD 0143</td>
<td>Shop Math 2 cr</td>
</tr>
<tr>
<td>WELD 0231</td>
<td>Welding Practice III 13 cr</td>
</tr>
<tr>
<td>WELD 0232</td>
<td>Welding Practice IV 13 cr</td>
</tr>
<tr>
<td>WELD 0241</td>
<td>Metal Layout 3 cr</td>
</tr>
<tr>
<td>WELD 0243</td>
<td>Shop Math II 3 cr</td>
</tr>
<tr>
<td>COMM 1101</td>
<td>Principles of Speech 3 cr</td>
</tr>
</tbody>
</table>

(contributes to AAS English/Communication Requirement; satisfies a General Education Requirement) **TOTAL: 79 cr**

### Elective Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MACH 0105</td>
<td>Machining Practices 1-4 cr</td>
</tr>
<tr>
<td>WELD 0105</td>
<td>Welding 1-4 cr</td>
</tr>
</tbody>
</table>

**WELD Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD 0105</td>
<td>Welding 1-4 credits. Introduction to and practice of arc welding. Metals and various types of welds. D</td>
</tr>
<tr>
<td>WELD 0131</td>
<td>Welding Practice I 12 credits. 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</td>
</tr>
<tr>
<td>WELD 0132</td>
<td>Welding Practice II 12 credits. 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</td>
</tr>
<tr>
<td>WELD 0140</td>
<td>Welding Theory 2 credits. 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, S</td>
</tr>
<tr>
<td>WELD 0141</td>
<td>Mechanical Drawing 2 credits. 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</td>
</tr>
<tr>
<td>WELD 0142</td>
<td>Blueprint Reading 2 credits. Study of trade math, dimensioning from working drawings of the trade. Identification of lines, views, materials and dimensions; study of basic drawings of welding trade. S</td>
</tr>
</tbody>
</table>

WELD 0143 Shop Math 12 credits. 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, S

WELD 0159 Arc Welding 1-8 credits. 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 C Tech counselor. (This is a special certificate option.) F, S

WELD 0231 | Welding Practice III 13 credits. Low hydrogen, stainless steel, and pipe welding techniques in shop applications. PREREQ: WELD 0132. F |
| WELD 0232 | Welding Practice IV 13 credits. 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 credits. Introduction to geometric construction, principles of metal layout, and special trade charts and tables. PREREQ: WELD 0141. F |
| WELD 0243 | Shop Math II 3 credits. Continuation of WELD 143, with introduction to specific trade formulas, basic algebra, proportions, right triangle math, trigonometry, and special trade charts and tables. PREREQ: WELD 0143. F, S |
| WELD 0290 | Independent Study 1-8 credits. 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 credits. 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 |

### Advanced Technical Certificate:

**Welder-Fitter**

(4 Semesters)

<table>
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</tr>
<tr>
<td>WELD 0140 Welding Theory 2 cr</td>
</tr>
<tr>
<td>WELD 0141 Mechanical Drawing 2 cr</td>
</tr>
<tr>
<td>WELD 0142 Blueprint Reading 2 cr</td>
</tr>
<tr>
<td>WELD 0143 Shop Math 2 cr</td>
</tr>
</tbody>
</table>

**TOTAL: 32 cr**
General Education Department
Chair: Rhoads

Technical General Education
Coordinator and Master Instructor: Allen
Senior Instructors: Barclay, Lambert
Instructors: Clarke, Frandsen,
Taylor-Edwards
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 their occupational content courses of their programs. These students enroll for 1-16 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/technical writing, oral communication, building job search skills, 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 programs’ 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://www.isu.edu/ctech/studentservices/tge.pdf.

This program requires students to achieve certain grades in order to advance each semester. Specific information is available in the program’s student handbook.

TGE Basic Courses
TGE 0100A Algebra 1 4 credits. Topics include linear equations, factoring, graphing, functions, and quadratic equations with an emphasis on practical and technical problems. Equivalent to MATH 0025. Not eligible for academic credit. D
TGE 0100C Critical Thinking 3 credits. 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 credits. Course is designed to meet individual student needs. D
TGE 0100M Math 4 credits. Course provides an overview of complex fractions, decimals, and percents with an emphasis on practical application. Equivalent to MATH 1005. Not eligible for academic credit. D
TGE 0100P Personal and Professional Effectiveness 1-2 credits. 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. Registration restriction: Permission of instructor. D
TGE 0100R Reading 3 credits. 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 credits. 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 credits. 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 credits. Clear writing in standard, edited American English. Equivalent to ENGL 0090. Not eligible for academic credit. D

TGE Core Courses
COMM 1101 Principles of Speech 3 credits. (see description in the Department of Communication and Rhetorical Studies, in the College of Arts and Letters section of this Catalog.)
ENGL 1101 English Composition, and ENGL 1102 Critical Reading and Writing (see descriptions in the Department of English and Philosophy, in the College of Arts and Letters section of this Catalog.)
MATH 1123 Mathematics in Modern Society (see description in the Department of Mathematics, in the College of Science and Engineering section of this Catalog.)
TGE 0135 Workplace Relations 3 credits. 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 credits. 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 credits. Course provides instruction in application of formal technical report writing strategies and fundamentals of research. D
TGE 0158 Employment Strategies 1-2 credits. Comprehensive study and practice of job search activities, including company research, networking strategies, interviewing behavior, and writing the resume and business correspondence. Course 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 0162 Orientation to Computer Technology 1 credit. Use of instructor software (Moodle) and on-line library services, Internet research, use of BengalWeb 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 0257 Applied Ethics in Technology 1 credit. Ethical issues in engineering and contemporary technology that engineering technicians may face in professional practice. 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. S
Adult Basic Education
Coordinator: Jacob
Instructors: Burton, Gooch, Graham, Hunt, Lish, Ray, Serpa, Watts
(208) 282-2468
http://www.isu.edu/ctech/cotgened/abe_main.shtml

The program offers free assistance for people 16 and older who are not enrolled in K-12 and are performing at the nonreader through twelfth-grade levels. Services are provided at the Adult Success Center on the third floor of the Roy F. Christensen Building (building #48) and at outreach sites in southeastern Idaho counties.

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. An Internet option is available.

General Educational Development (GED®). -- This service assists people who have not received a high school diploma. In addition to assessment and instruction, the program administers Official Practice Tests as preparation for the GED®. Some scholarships are available for the GED® Tests, 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
Director: Brower
Counselors: Brydon, Christensen, Darling, Norton
(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 College of Technology single-parent students and 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, Preston, Soda Springs, and in the Shoshone-Bannock Education Center.

Student Resource Center
Coordinator: Byington
(208) 282-3208
www.isu.edu/ctech/cotgened/resource

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.

Successful Transitions and Retention Track (START)
Coordinator: Nix
Instructors: Allen, Byington
Counselor: Christensen
(208) 282-4159
http://www.isu.edu/START/

The START program is for those who have achieved or are working toward a Certificate of General Education Development (GEDC) and wish to enter postsecondary education. During Phase I, participants enroll in the College Success Course for 1 credit. In conjunction with the course, students attend career workshops in which they learn program oriented and applied math as well as academic writing and reading content.

In Phase II of START, participants begin coursework as degree-seeking students. START staff, tutors, and counselors maintain regular contact with Phase II enrollees to ensure sustainable futures. START tracks students from the time of acceptance into the program, throughout their educations in the interest of providing opportunities for success.

Workforce Training
Jeff S. Hough, Interim Director
Kathy Hayes, Assistant Director

WORKFORCE TRAINING
College of Technology
Continuing Education Building
921 S 8th Ave Stop 8076
Pocatello, ID 83209-8076
(208) 282-3372
http://workforcetraining.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.

In addition to short-term courses, WORKFORCE TRAINING verifies the experiential credits for two A.A.S. Degrees, the Electrical Apprenticeship and Plumbing Apprenticeship.

**Associate of Applied Science Degree: Electrical Apprenticeship**

This Associate of Applied Science Degree is designed for the student who has a current Idaho journeyman license, has proof of completed apprenticeship, and proof of registration with the Electrical Division, 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 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:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELAP 0100</td>
<td>Electrical Internship – Year 1</td>
<td>10 cr</td>
</tr>
<tr>
<td>ELAP 0101</td>
<td>Electrical Theory – Year 1</td>
<td>3 cr</td>
</tr>
<tr>
<td>ELAP 0150</td>
<td>Electrical Internship – Year 2</td>
<td>10 cr</td>
</tr>
<tr>
<td>ELAP 0151</td>
<td>Electrical Theory – Year 2</td>
<td>3 cr</td>
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<tr>
<td>ELAP 0200</td>
<td>Electrical Internship – Year 3</td>
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<td>ELAP 0201</td>
<td>Electrical Theory – Year 3</td>
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<tr>
<td>ELAP 0250</td>
<td>Electrical Internship – Year 4</td>
<td>10 cr</td>
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<tr>
<td>ELAP 0251</td>
<td>Electrical Theory – Year 4</td>
<td>3 cr</td>
</tr>
<tr>
<td>Total: 67 cr</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Electrical Apprenticeship Courses**

**ELAP 0100 Electrical Internship – Year 1** 10 credits. First year (2,000 hours) of documented on-the-job work experience. The student must be working under the supervision of a journeyman electrician and these hours must be documented through the Electrical Division, Idaho Department of Labor and Industrial Services. D

**ELAP 0101 Electrical Theory – Year 1** 3 credits. Theory and instruction in orientation to the electrical trade, safety, basic math, electrical DC theory through combined circuits, introduction to the National Electric Code, and general wiring methods. D

**ELAP 0150 Electrical Internship – Year 2** 10 credits. Second year (2,000 hours) of documented on-the-job work experience. The student must be working under the supervision of a journeyman electrician and these hours must be documented through the Electrical Division, Idaho Department of Labor and Industrial Services. D

**ELAP 0151 Electrical Theory – Year 2** 3 credits. Theory and instruction in safety, electrical AC theory through R.L.C., advanced math, motors/generators basics, transformer basics, overcurrent protection, and grounding. D

**ELAP 0200 Electrical Internship – Year 3** 10 credits. Third year (2,000 hours) of documented on-the-job work experience. The student must be working under the supervision of a journeyman electrician and these hours must be documented through the Electrical Division, Idaho Department of Labor and Industrial Services. D

**ELAP 0201 Electrical Theory – Year 3** 3 credits. Theory and instruction in safety, blueprint reading, motor control bases, advanced grounding, advanced transformers/motors/generators, and special occupancy and wiring methods. D

**ELAP 0250 Electrical Internship – Year 4** 10 credits. Fourth year (2,000 hours) of documented on-the-job work experience. The student must be working under the supervision of a journeyman electrician and these hours must be documented through the Electrical Division, Idaho Department of Labor and Industrial Services. D

**ELAP 0251 Electrical Theory – Year 4** 3 credits. Theory and instruction in safety, advanced motor controls, load calculations, leadership skills, high voltage, and National Electrical Code review. D

**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 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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<tbody>
<tr>
<td>PLAP 0100</td>
<td>Plumbing Internship – Year 1</td>
<td>10 cr</td>
</tr>
<tr>
<td>PLAP 0101</td>
<td>Plumbing Theory – Year 1</td>
<td>3 cr</td>
</tr>
<tr>
<td>PLAP 0150</td>
<td>Plumbing Internship – Year 2</td>
<td>10 cr</td>
</tr>
<tr>
<td>PLAP 0151</td>
<td>Plumbing Theory – Year 2</td>
<td>3 cr</td>
</tr>
<tr>
<td>PLAP 0200</td>
<td>Plumbing Internship – Year 3</td>
<td>10 cr</td>
</tr>
<tr>
<td>PLAP 0201</td>
<td>Plumbing Theory – Year 3</td>
<td>3 cr</td>
</tr>
<tr>
<td>PLAP 0250</td>
<td>Plumbing Internship – Year 4</td>
<td>10 cr</td>
</tr>
<tr>
<td>PLAP 0251</td>
<td>Plumbing Theory – Year 4</td>
<td>3 cr</td>
</tr>
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<td>Total: 67 cr</td>
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</tr>
</tbody>
</table>

**Plumbing Apprenticeship Courses**

**PLAP 0100 Plumbing Internship – Year 1** 10 credits. This course covers the first year (2,000 hours) of documented on-the-job work experience. The student must be working under the supervision of a journeyman plumber and these hours must be documented through the Plumbing Division, Idaho Department of Labor and Industrial Services. D

**PLAP 0101 Plumbing Internship – Year 1** 10 credits. This course covers the first year (2,000 hours) of documented on-the-job work experience. The student must be working under the supervision of a journeyman plumber and these hours must be documented through the Plumbing Division, Idaho Department of Labor and Industrial Services. D

**PLAP 0150 Plumbing Internship – Year 2** 10 credits. This course covers the second year (2,000 hours) of documented on-the-job work experience. The student must be working under the supervision of a journeyman plumber and these hours must be documented through the Plumbing Division, Idaho Department of Labor and Industrial Services. D

**PLAP 0151 Plumbing Internship – Year 2** 10 credits. This course covers the second year (2,000 hours) of documented on-the-job work experience. The student must be working under the supervision of a journeyman plumber and these hours must be documented through the Plumbing Division, Idaho Department of Labor and Industrial Services. D

**PLAP 0200 Plumbing Internship – Year 3** 10 credits. This course covers the third year (2,000 hours) of documented on-the-job work experience. The student must be working under the supervision of a journeyman plumber and these hours must be documented through the Plumbing Division, Idaho Department of Labor and Industrial Services. D

**PLAP 0250 Plumbing Internship – Year 4** 10 credits. This course covers the fourth year (2,000 hours) of documented on-the-job work experience. The student must be working under the supervision of a journeyman plumber and these hours must be documented through the Plumbing Division, Idaho Department of Labor and Industrial Services. D

**PLAP 0251 Plumbing Internship – Year 4** 10 credits. This course covers the fourth year (2,000 hours) of documented on-the-job work experience. The student must be working under the supervision of a journeyman plumber and these hours must be documented through the Plumbing Division, Idaho Department of Labor and Industrial Services. D

**PLAP 0201 Plumbing Theory – Year 3** 3 credits. This course provides theory and instruction in orientation to the plumbing trade, safety, math, hand tools, blueprints, rigging, fittings and piping systems. D

**PLAP 0251 Plumbing Theory – Year 4** 3 credits. This course provides theory and instruction in orientation to the plumbing trade, safety, math, hand tools, blueprints, rigging, fittings and piping systems. D
PLAP 0150 Plumbing Internship - Year 2
10 credits. This course covers the second year (2,000 hours) of documented on-the-job work experience. The student must be working under the supervision of a journeyman plumber and these hours must be documented through the Plumbing Division, Idaho Department of Labor and Industrial Services. D

PLAP 0151 Plumbing Theory - Year 2
3 credits. This course provides theory and instruction in drawings, math, installation, joining, connecting, testing, faucets, valves, water heaters and meters, and fixtures. D

PLAP 0200 Plumbing Internship - Year 3
10 credits. This course covers the third year (2,000 hours) of documented on-the-job work experience. The student must be working under the supervision of a journeyman plumber and these hours must be documented through the Plumbing Division, Idaho Department of Labor and Industrial Services. D

PLAP 0201 Plumbing Theory - Year 3
3 credits. This course provides theory and instruction in commercial drawings, plumbing codes, math, vents, sewer and sewage, backflow, handling water (filtering, softening, cleaning, disinfecting, installing, etc.) fixtures, solar heating systems, and natural gas systems. D

PLAP 0250 Plumbing Internship - Year 4
10 credits. This course covers the fourth year (2,000 hours) of documented on-the-job work experience. The student must be working under the supervision of a journeyman plumber and these hours must be documented through the Plumbing Division, Idaho Department of Labor and Industrial Services. D

PLAP 0251 Plumbing Theory - Year 4
3 credits. This course provides theory and instruction in plumbing theory, drainage. vents, waste, water supplies, swimming pools, hot tubs, compressed air piping systems, medical gas systems, mobile homes, and private waste disposal and water supply systems. D

Note: Federal Financial Aid does NOT apply to these courses.

Southeast Idaho
Region 5 Tech Prep

Coordinator: Thomas 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 postsecondary 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, there are more than 90 high school programs that articulate credit to 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.
Idaho Museum of Natural History

Faculty:
Director, Research Curator and Anthropology Division Head; Director, Idaho Virtualization Laboratory; Director, Center for Archaeology, Materials, and Applied Spectroscopy, and Anthropology Research Professor: Maschner
Research Curator and Earth Sciences Division Head: Tapanila
Research Curator Ray J. Davis Herbarium and Life Science Division Head: Williams
Affiliate Research Curators: R. Holmer, Betts, Dudgeon, Rountree, Schou, Crosby, Thackray, Holte, Peterson, Keeley, Anderson, Ray, Fortsch, Link, Misarti
Emeriti: Akersten, Holte, Trost

Museum Staff:
Registrar: Thompson
Education Resources Coordinator: Pokorny
Anthropology Collections Manager: Tews
Earth Sciences Collections Manager: Thompson
Life Sciences and Ray J. Davis Herbarium Collections Manager: Bala
Earl R. Swanson Archaeological Repository Manager: Commendador-Dudgeon
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 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 affiliated Idaho State University departments. See course descriptions in the College of Arts and Letters section of the catalog.

The Idaho Museum of Natural History gallery is open from 12:30 - 5 p.m., Wednesday through Friday, 10-5pm Saturday, except for Federal and State holidays. There is currently no admission fee.

Museum Courses

MUSE 4411 Introduction to Museum Studies 2 credits. 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 credits. 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 credits. 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 for up to 6 credits. PREREQ: MUSE 4411 or permission of instructor. D

MUSE 4451 Internship in Museum Studies 3-6 credits. 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: practice 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 credits. 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. PREREQ: Permission of instructor. F, S, Su
Institutes

Biomedical Research Institute

Director and Associate Professor: Bearden

Established in 2005 to increase the collaboration, efficiency and focus of the University’s biomedical research activities, the Biomedical Research Institute will provide additional resources for faculty to improve research capabilities.

The long-term vision of the Institute is to establish a nationally and internationally recognized interdisciplinary biomedical research environment where scientists, engineers, and health professionals can interact synergistically, without the restrictions of traditional discipline barriers.

The Institute’s four major focus areas are: behavioral and neuroscience; bio-signaling and communication; functional genomics and biotechnology; and health science and engineering.

For more information, see IBRI.isu.edu.

Informatics Research Institute

Director and Professor: Schou
Associate Director and Professor: Lohse
Research Professor: Schmidt
Associate Professors: Cady, Sammons, J. Strickland
Research Associate Professor: Laxminarayan
Research 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, master 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, master, 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 prerequisites 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 CIS 4411, a minimum of 6 hours of 4419 (Informatics Practicum) or 4493 (Internship) and two additional courses in Information Assurance. Students in the CIS 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 CIS 4411, CIS 4412, CIS 4413, CIS 4414, CIS 4415.
- CNSS 4013 – Students certifying for 4013 must complete CIS 4411, CIS 4413, and CIS 4485.
- CNSS 4014 – Students certifying for 4014 must complete CIS 4411, CIS 4413 and CIS 4414.
- CNSS 4015 – Students certifying for 4015 must complete CIS 4411, CIS 4414 and CIS 4415.

Institute of Emergency Management
Director: Mikitish

The Institute of Emergency Management, (IEM) located on the Idaho State University Meridian Campus, was approved by the Idaho State Board of Education in July 2003. The purpose of the Institute is to offer workshops, courses, certificates, and in the future degrees, to meet the professional and career development needs of Idahoans employed in or planning a career in Emergency Management. The Institute delivers courses statewide at various sites in Idaho communities to meet the needs of local first responders. Here is the internet address of the IEM registration website: www.idahoprepares.com

Institute of Nuclear Science and Engineering
Director and Professor: Lineberry
Assistant 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 public/private partnership comprised of the three Idaho public universities, 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 and a scholarship application, visit the Institute’s scholarship web page at http://www.isu.edu/departments/inse/tntp.html
# Idaho State University Administration

**Arthur C. Vailas, Ph.D.** .................................................. President of the University .................................................. (208) 282-3440

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Scott Turner .................................................................. Interim Associate Vice President for Development ................. (208) 282-3470
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Rod Lewis ....................................................................................... Member
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Milford Terrell ............................................................................... Member
Richard Westerberg ...................................................................... Member

Idaho State University Faculty Roster

Asterisks denote members of the Graduate Faculty. The date in parentheses is the date of first appointment at Idaho State University. Adjunct faculty, Affiliate faculty, Emeritus faculty, and Athletics coaches are shown at the end of this section.

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)

Adamick, Barbara, A.* Interim Provost and Vice President for Academic Affairs; Professor, Pharmacy Practice and Administrative Sciences; Affiliate Faculty, Sociology, Social Work, and Criminal Justice. B.A. 1974, University of California at Los Angeles; M.A. 1981, Ph.D. 1984, University of Southern California. (1985)


Agado, Brooke E., Assistant Professor, Dental Hygiene. RDH, B.S. 2002, Idaho State University. (2005)


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)


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, 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, 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)

Bassett, Tamra A., Assistant Lecturer, Languages and Literatures.


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)

Beaty, 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)

Benson, Marc A.,* Assistant Professor, Biological Sciences. B.S. 2000, University of Puget Sound; Ph.D. 2010, Medical College of Wisconsin. (2012)

Beran, Mary Lou, Database Manager, Library (equivalent rank, Professor). B.S. 1963, Mankato State College; M.Libr. 1968, University of Washington. (1968)


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)

Bion, 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)


Brunley, 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.


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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)


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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)
Adjunct Faculty

Adams, George, Music
Adams, Michelle, Music
Alexander, Linda, Mathematics
Allen, Syndie, English
Attebery, Brian, Music
Axford, Ed, Health Care Administration
Babcock, Ryan, Art
Banyas, Thomas P., Music
Barclay, Bryan, Mathematics
Benedict, Hope, History
Bennett, Lindsi, Counseling
Bergett, Eric, Physics

Blair, Charlotte, Mass Communication
Bolinger, Patti, Counseling
Bono, Leciel, Dental Hygiene
Brindusa, Sergiu, Theatre and Dance
Brinthurst, Eric L., Dental Hygiene
Brinthurst, G. Louis, Dental Hygiene
Brooks, Debbie J., English
Brown, Bruce B., Finance
Brumfield, Amy K., English
Call, Bradley A., Marketing
Call, Whitney Lin, Sport Science and Physical Education
Callis, Jeffery, History
Charles, Tonya A., English
Christensen, Keith, Sport Science and Physical Education
Christensen, Tony D., Mathematics (also Affiliate Faculty, Education)
Christensen, Vickie J., English
Cleveland, Joanna, Art
Colby, Don, Music
Collins, Danielle, Teacher Education
Crepeau, John C., Mechanical Engineering
Curtis, Carri P., Sport Science and Physical Education
Dean, Patricia A., Anthropology
Dewey, David Neal, Mathematics
Dineen, Jeremy D., English
Drake, James, Music
Drecksel, Jacqueline A., Sport Science and Physical Education
Eckert, Thomas, Political Science
Eisenhauer, Laurie, Dental Hygiene
Emfield, Scott, History
Erickson, Lance, Counseling
Espinosa, Stefan, Theatre and Dance
Espy, Michelle, Physics
Evans, Valerie, Theatre and Dance
Farrar, Richard, Biological Sciences
Feige, Juliet, Art
Flowers, Terron L., Dance
Francis, James, History
Friedley, Geoffrey, Music

Frost, Amber Nuckols, Dance
Gesell, Thomas, Physics
Gibson, Lyn, Psychology
Giso, Chris, Dental Hygiene
Godfrey, Dwight, Dental Hygiene
Godfrey, Michael, Dental Hygiene
Gonzalez-Aller, Carolina M., Chemistry
Gould, Drusilla, Native Language Instructor, Anthropology
Graham, Janna M., English
Gregson, Mary, Dental Hygiene
Grisè, Tiana L., Music
Haan, Brenda, Communication and Rhetorical Studies
Haerbele, Jacob, English
Halpenny-Weathersby, Anne, Chemistry
Hamilton, LaChelle, Sport Science and Physical Education
Hardy, James H., Philosophy
Harker, Dana, English
Harker, Yale, Physics
Harmon, Kenneth S., Mathematics
Harris, Jason, Physics
Harris, Matthew T., Counseling
Hatch, John, English
Hauser, Anna Marie, Dental Hygiene
Hawkley, McKenzie K., Sport Science and Physical Education
Head, Lori J., Theatre and Dance
Heldwein, Richelle, Health Care Administration
Helman, Michael, Music
Heyneman, Nicholas E., Psychology
Hill, Chelsie A., Sport Science and Physical Education
Hill, Tony, Physics
Hilvers, Kristen L., Nutrition and Dietetics
Hinds, Megan, Sport Science and Physical Education
Hofeldt, Sarah Marea, Sport Science and Physical Education
Hooker, Brandy, Dental Hygiene
Hooper, Jennifer J., Education
Horrocks, Daniel T., Theatre
Hughes, Susan, Music
Hunter, Stevan, Electrical Engineering & Computer Science
Ivanjac, Jelena, Marketing
Janikowski, Cliff R., Biological Sciences
Jantz, Jolie O., Pharmacy Practice and Administrative Sciences
Jenson, Jonathan, Electrical Engineering & Computer Science
Johns, Benjamin Lee, Communication and Rhetorical Studies
Johnsen, Sanae Y., Languages and Literatures
Johnston, Mark, Pharmacy Practice and Administrative Sciences
Jolley, Sharlene, Chemistry
Jones, James, Physics
Jorgensen, Molly Suzanne, Theatre and Dance
Judd, Brett M., Sociology
Judy, Kathleen D., Mathematics
Kane, Kathleen A., Teacher Education
Kase, Troy, Counseling
Keeler, Helen, English
Ketner, Deanna, Mathematics
Kindler, Diana G., Sport Science and Physical Education
Klinger, Carroll M., Sport Science and Physical Education
Landers, John, Psychology
Larish, Janalyn Richards, Mathematics
Larsen, Debra, Psychology
Larsen, Larry D., Sport Science and Physical Education
Law, Lellie Kae, Accounting
Leavitt, Philip N., Jr., Sport Science and Physical Education
LeFevre, Brian, Electrical Engineering & Computer Science
Leibert, Karen, History
Lindsay, Tonya Lee, Sport Science and Physical Education
LoPiccolo, John F., Music
Mayes, William R., Mathematics
McIsaac, Chrystal A., Dance
McJunkin, Timothy, Electrical Engineering & Computer Science
Morrison, Holly Chase, Sport Science and Physical Education
Nagata, Tsutomu, Languages and Literatures
Neiwirth, Mark, Music
Ney, John A., Management
Nield, Tracy, Sport Science and Physical Education
Nielsen, Steven F., Idaho Dental Education Program
Nigg, David, Physics
O’Brien, William J., Music
Ogden, T. Heath, Biological Sciences
Olsen, Greg, English
Pan, Wei, Electrical Engineering & Computer Science
Parker, Lynne, Art
Patton, Robert C., Political Science
Peterson, Jason, Dental Hygiene
Peterson, Mandy Mae, Nutrition and Dietetics
Phelps, Sheena, Theatre and Dance
Phippen, Earl F., Political Science
Pirro, Louis M., Art
Pongratz, Rick, Psychology
Potter, Diana G., Theatre and Dance
Powell, Richard B., Geosciences
Primrose, Robert, Communication and Rhetorical Studies
Pugmire, Brooke A., Pharmacy
Rahmg, Michelle, Dental Hygiene
Reddix, Lee R., Dental Hygiene
Reedy, Penelope M., English
Reinke, Darrell, History
Renlund, Gary, Electrical Engineering & Computer Science
Robinson, Carol, Counseling
Romine, Jamie, Theatre and Dance
Roney, Tim, Physics
Ruchti, Wendy Perry, Education
Rude, Eric P., Mathematics
Rush, Julian R., Jr., Mass Communication
Ruth, Eileen, Dental Hygiene
Schiers, Cheryl L., Special Education
Schleusener, Debra, Mathematics
Schmidt, Jim Leroy, Counseling
Schradert, Brad, Health Physics
Scott, Darrell E., Management
Shepard, Ron, Dental Hygiene
Sherwin, Joann, Geosciences
Siahpushk, Ali S., Mechanical Engineering
Simonson, Randy H., Psychology
Smith, Norman Randy, Finance
Smith, Whitney J., Sport Science and Physical Education
Snyder, James, Radiographic Science
Sommer, Heath J., Psychology
Spain, Luann, Dental Hygiene
Stabler, Jack C., Economics
Stander, Michael D., Pharmacy Practice and Administrative Sciences
Steffler, Susan L., Sport Science and Physical Education
Stephens, Steven A., Psychology
Stephenson, Monical Colleen, Dental Hygiene
Stevens, Susan, Dental Hygiene
Storms, Honore, History
Stringfellow-Brookman, Anne, Languages and Literatures
Swann, Brad, Radiographic Science
Swanson, Ann, Health Care Administration
Tadehara, Ajax, Sport Science and Physical Education
Tadehara, Sami, Sport Science and Physical Education
Tatarova, Valia, Languages and Literatures
Thomas, Evan, Public Health
Thompson, Diane, Sport Science and Physical Education
Thompson, Julie, Counseling
Tighe, Heidi, English
Tivis, Rick D., Public Health
Tolman, Gregory C., Sport Science and Physical Education
Tucker, Lindsay, Theatre and Dance
VanBezooyen, Keith, English
Walker, Amy S., Theatre
Wall, Nancy D., English
Wang, Jing, Nuclear Engineering
Watts, Barry, Counseling
Welsh, Peter, Psychology
Wertz, Christopher, Radiographic Science
White, Timothy, Physics
Wilker, John, Health Care Administration
Williams, Paul, Dental Hygiene
Wood, Tamara, English
Wright, Steve, Health Care Administration
Wu, Di, Geosciences
Yik, King, Economics; Finance
York, Molly, Music
Zahn, Laurie L.B., Health Professions
Zmolek, Paul, Theatre and Dance

Affiliate Faculty
Abel, Grace, Nursing
Aggers, Patricia, Pharmacy Practice and Administrative Sciences
Albrecht, Mark J., Sociology, Social Work, and Criminal Justice
Alexander, Coraly n J., Physician Assistant Studies
Alexander, Martha, Pharmacy Practice and Administrative Sciences
Alexis, George, Pharmacy Practice and Administrative Sciences
Allen, Arthur, Pharmacy Practice and Administrative Sciences
Allerman, Angela, Pharmacy Practice and Administrative Sciences
Amiel, Terry, Nursing; Physician Assistant Studies
Anderson, David Howard, Pharmacy Practice and Administrative Sciences
Andrus, Joseph M., Pharmacy Practice and Administrative Sciences
Apel, William A., Biological Sciences
Armour, William, Physician Assistant Studies
Arredondo, Roel A.,* Pharmacy Practice and Administrative Sciences
Aumeier, Steven, Engineering
Babb, Kris, Nursing; Physician Assistant Studies
Bailey, Corrine, Pharmacy Practice and Administrative Sciences
Baines, David, Family Medicine
Baker, Clay, Pharmacy Practice and Administrative Sciences
Baker, Michael, Family Medicine; Pharmacy Practice and Administrative Sciences; Physician Assistant Studies
Ballard, JoEtte, Pharmacy Practice and Administrative Sciences
Banks, Todd,* Pharmacy Practice and Administrative Sciences
Barefoot, Joseph L., Nursing
Barrett, Paul, Pharmacy Practice and Administrative Sciences
Bartels, Cathy, Pharmacy Practice and Administrative Sciences
Bartschi, Terrell E., Pharmacy Practice and Administrative Sciences
Bateman, J. Michael, Family Medicine; Physician Assistant Studies
Beard, Michelle, Radiographic Science
Bearden, Trudy, Pharmacy Practice and Administrative Sciences
Beardsley, Paul, Biological Sciences
Bechtel, Randy L.,* Pharmacy Practice and Administrative Sciences
Beckman, Jon P., Biological Sciences
Beig, Jacqueline, Nursing
Belau, Frederick W., Nursing; Physician Assistant Studies
Belzer, Sharolyn, Biological Sciences
Bennett, Barry, Nursing
Bennett, Jack, Nursing
Berger, Joel, Biological Sciences
Bergett, Eric, Physics
Bergmeier, Terri, Sociology, Social Work, and Criminal Justice
Berheim, Dawn Stiley, Pharmacy Practice and Administrative Sciences
Berlant, Jeffrey, Pharmacy Practice and Administrative Sciences
Billings, Patricia Collins, Nursing
Bird, Breezy, Radiographic Science
Birkenhagen, W. Kurt, Family Medicine
Bitton, Shannon, Radiographic Science
Black, Catherine, Biological Sciences
Black, Paul, Pharmacy Practice and Administrative Sciences
Blackburn, Brandon, Physics
Blacker, Paul B., Research
Blacksher, Jay, Physician Assistant Studies
Blair, Benjamin, Family Medicine; Physician Assistant Studies
Blair, Paula, Pharmacy Practice and Administrative Sciences
Bleich, Vernon, Biological Sciences
Blew, Roger, Biological Sciences
Boe, Roger W., Family Medicine
Boehme, Sabrina, Pharmacy Practice and Administrative Sciences
Bohus, Robert, Family Medicine; Physician Assistant Studies
Bokelmann, Jean M., Pharmacy Practice and Administrative Sciences
Bolding, Jennifer,* Pharmacy Practice and Administrative Sciences
Bolinger, Patricia Marion, Counseling
Bond, Diana, Pharmacy Practice and Administrative Sciences
Borchert, Beverly K., Pharmacy Practice and Administrative Sciences
Bosley, Craig Lynn, Family Medicine
Boston, Robert, Engineering
Bouts, Bruce A.,* Pharmacy Practice and Administrative Sciences
Bradbury, Andrew R., Family Medicine; Nursing; Physician Assistant Studies
Bradford, V. Susan, Pharmacy Practice and Administrative Sciences
Branahl, James E., Pharmacy Practice and Administrative Sciences
Brandon, Maureen, Biological Sciences
Brinburst, Michael Ken, Pharmacy Practice and Administrative Sciences
Britain, Elizabeth, Nursing
Broadhead, Mark Hall, Family Medicine; Pharmacy Practice and Administrative Sciences; Physician Assistant Studies
Broberg, Jennifer, Radiographic Science
Brooke, Peter, Sociology, Social Work, and Criminal Justice
Brown, Douglas, Physician Assistant Studies
Bruce, Steve, Dental Sciences
Bryant, John P., Biological Sciences
Brydon, William, Family Medicine; Physician Assistant Studies
Bubalo, Joseph S.,* Pharmacy Practice and Administrative Sciences
Buchin, Daniel, Pharmacy Practice and Administrative Sciences
Buffington, Daniel, Pharmacy Practice and Administrative Sciences
Buitrago, Martha, Family Medicine Residency Program
Burch, John B., Biological Sciences
Burns-Youren, Barbara, Nursing
Burr, Randall, Nursing
Burton, Brad, Family Medicine
Byington, Shawna Lee, Pharmacy Practice and Administrative Sciences
Byron, James, Pharmacy Practice and Administrative Sciences
Calasso, Louis C., Pharmacy Practice and Administrative Sciences
Calis, Karim, Pharmacy Practice and Administrative Sciences
Call, Benjamin, Family Medicine; Physician Assistant Studies
Call, Gary D., Family Medicine
Call, Lloyd, Family Medicine
Call, Richard Roy, Education
Callaghan, Cheryl M., Family Medicine
Callaghan, Michael T., Family Medicine
Calley, David, Pharmacy Practice and Administrative Sciences
Cameron, Robert, Family Medicine
Campbell, Clay Ian, Nursing
Cannon, H. Eric, Pharmacy Practice and Administrative Sciences
Cantrell, Wendy C., Pharmacy Practice and Administrative Sciences
Cardinal, Jean Marc (Donald), Family Medicine
Carlson-Lammers, Rena, Biological Sciences
Carmichael, Janett, Pharmacy Practice and Administrative Sciences
Carrigan, Brian, Nursing
Casabonne, Francois, Pharmacy Practice and Administrative Sciences
Casperson, Angela, Pharmacy Practice and Administrative Sciences
Castles, Laverta A., Sociology, Social Work and Criminal Justice
Chan, Miriam M.,* Pharmacy Practice and Administrative Sciences
Chapman, Brent, Dental Sciences
Chelenes, John,* Pharmacy Practice and Administrative Sciences
Cherayil, Geeta Ann,* Pharmacy Practice and Administrative Sciences
Christensen, Keith, Sport Science and Physical Education
Christon, James, Family Medicine; Physician Assistant Studies
Clifford, Jerry H., Pharmacy Practice and Administrative Sciences
Clifford, Linda, Pharmacy Practice and Administrative Sciences
Clough, Karl, Pharmacy Practice and Administrative Sciences
Cogan, Richard, Pharmacy Practice and Administrative Sciences
Coker, Steven Lloyd, Family Medicine
Colledge, Pat, Nursing; Physician Assistant Studies
Colwell, Frederick S., Biological Sciences
Comstock, Stephen, Pharmacy Practice and Administrative Sciences
Condie, JoAn, Pharmacy Practice and Administrative Sciences
Connelly, Cheryl, Sociology, Social Work and Criminal Justice
Connelly, Jack, Biological Sciences
Conner, John, Family Medicine
Cook, Darryl B., Family Medicine; Physician Assistant Studies
Cook, Joseph A., Biological Sciences
Cook, Judy, Nursing
Cook, Marcus, Pharmacy Practice and Administrative Sciences
Coray, Robert, Family Medicine
Cordi, Susan L. Burgoyne, Pharmacy Practice and Administrative Sciences
Cording, Margaret, Pharmacy Practice and Administrative Sciences
Cornell, Joseph, Biological Sciences
Cornwall, Thomas, Physician Assistant Studies
Cortez, Lisa, Pharmacy Practice and Administrative Sciences
Cox, Kim L., Family Medicine; Physician Assistant Studies
Crandall, Monte, Physician Assistant Studies
Cummings, Rick, Health Physics
Cusack, Barry J., Pharmacy Practice and Administrative Sciences
Cussler, Richard, Nursing
DaBell, Jeff, Dental Sciences
Darrah, Suzanne Lee, Pharmacy Practice and Administrative Sciences
Davis, Keith, Nursing
Davis, Thomas V., Physician Assistant Studies
Dean, Patricia, Research Affiliate Faculty, Anthropology
DeChristoforo, Robert,* Pharmacy Practice and Administrative Sciences
Degnan, Robert D., Nursing
Dehler, Carol M., Geosciences
Denny, Eve, Pharmacy Practice and Administrative Sciences
Denny, Kevin, Pharmacy Practice and Administrative Sciences
Denton, Amy, Biological Sciences
Denton, David Miles, Pharmacy Practice and Administrative Sciences
Dero, Douglas P., Family Medicine
DeSano, Edward A., Family Medicine; Physician Assistant Studies
Desmond, Kevin, Pharmacy Practice and Administrative Sciences
Dettloff, Richard W.,* Pharmacy Practice and Administrative Sciences
DeWall, Kevin, Engineering
Dickens, Michael D., Pharmacy Practice and Administrative Sciences
DiGrazia, Robert, Dental Sciences
Distefano, Salvatore, Pharmacy Practice and Administrative Sciences
Dolence, Larrran, Pharmacy Practice and Administrative Sciences
Dowding, Brady, Pharmacy Practice and Administrative Sciences
Doyle, Ryan, Dental Sciences
Driver, Paul, Pharmacy Practice and Administrative Sciences
Duncan, Ed, Dental Sciences
Dye, Bruce, Radiographic Science
Dye, Joel, Family Medicine
Dyer, Donald A., Family Medicine
Eaton, Judy, Health Care Administration
Eder, William R., Nursing
Her, Peter Michael, Dental Sciences
Hearn, Lepa, Family Medicine; Physician Assistant Studies
Heilman, June E., Family Medicine; Physician Assistant Studies
Henbest, Michael, Nursing
Herout, Peter Michael, Pharmacy Practice and Administrative Sciences
Hersh, Andrew, Pharmacy Practice and Administrative Sciences
Hershberger, Bruce, Dental Sciences
Hershberger, Matthew, Dental Sciences
Herrington, Anna Marie,* Pharmacy Practice and Administrative Sciences
Hetrick, Brian, Sport Science and Physical Education
Hill, Kevin S., Family Medicine
Hill, Tony, Physics
Hines, Alan, Pharmacy Practice and Administrative Sciences
Hobbs, Ross, Sociology, Social Work, and Criminal Justice
Hogan, William E., Pharmacy Practice and Administrative Sciences
Hogenauer, Alfred F., Pharmacy Practice and Administrative Sciences
Hogenauer, Alfred F., Pharmacy Practice and Administrative Sciences
Holland, David, Nursing
Holland, Jerry, Pharmacy Practice and Administrative Sciences
Holman, Richard, Engineering
Holman, Robert, Family Medicine
Hopkins, Isabell, Radiographic Science
Hopkins, Tim, Dental Sciences
Horton, Jon D.*, Pharmacy Practice and Administrative Sciences
Hubler, Gary L.*, Pharmacy Practice and Administrative Sciences
Hulisz, Darrell, Pharmacy Practice and Administrative Sciences
Hunt, Winslow Robert, Family Medicine
Hyde, E. F., Family Medicine
Ingram, Lachlan, Biological Sciences
Irwin, James, Family Medicine
Isaacs, Lori, Pharmacy Practice and Administrative Sciences
Jackman, Troy, Pharmacy Practice and Administrative Sciences
Jackson, Cary Vincent, Family Medicine; Physician Assistant Studies
Jackson, Melissa, Physical and Occupational Therapy
Jacobsen, Benjimin, Radiographic Science
Jensen, Lloyd R., Pharmacy Practice and Administrative Sciences
Jepsen, Shawn, Dental Sciences
Jeter, Charisse, Biological Science
Jett, Gail M., Nursing
Johakin, William L., Nursing
Johnson, Eric, Counseling
Johnson, Eric, Dental Sciences
Johnson, Rodney, Sociology, Social Work and Criminal Justice
Jones, James L., Physics
Jones-Howard, Hope, Biological Sciences
Judd, Victoria, Physician Assistant Studies
Kang-Kimm, Esther, Pharmacy Practice and Administrative Sciences
Katz, Sharon,* Physician Assistant Studies
Keeling, Lanny, Radiographic Science
Keener, William K.*, Biological Sciences
Kelly, Deborah, Pharmacy Practice and Administrative Sciences
Kempers, Kevin, Dental Sciences
Kennedy, Robert Michael, Family Medicine; Physician Assistant Studies
Kent, Robin, Pharmacy Practice and Administrative Sciences
Keys, Dell, Nursing
Khartain, Kenneth, Pharmacy Practice and Administrative Sciences
Killian, Scott, Pharmacy Practice and Administrative Sciences
Kim, Kukhee, Physics
King, Janet, Nursing
Kintzoglu, Alexander,* Pharmacy Practice and Administrative Sciences
Kittridge, Shawna L., Pharmacy Practice and Administrative Sciences
Knouf, Jerry, Physician Assistant Studies
Koenig, Steve, Pharmacy Practice and Administrative Sciences
Konrad, Donald, Family Medicine; Physician Assistant Studies
Kottkey, Diana L., Nursing
Krasner, Charles, Pharmacy Practice and Administrative Sciences
Kuhl, David E.,* Pharmacy Practice and Administrative Sciences
Kuo, Grace, Pharmacy Practice and Administrative Sciences
Kuyumjian, Arpi G.,* Pharmacy Practice and Administrative Sciences
Lackey, John M., Family Medicine
Lamintina, Sheryl, Biological Sciences
Langley, Karen, Health Physics
LaPatra, Scott E., Biological Sciences
LaPlante, Gedeon W., Pharmacy Practice and Administrative Sciences
Lapolla, Vincent N., Dental Hygiene
Larson, Zann, Military Science
Lassere, John, Family Medicine; Physician Assistant Studies
Lawless, Charles P., Family Medicine
Lawless, Chuck D., Pharmacy Practice and Administrative Sciences
Lawless, Julie, Pharmacy Practice and Administrative Sciences
Lawrence, Grace, Pharmacy Practice and Administrative Sciences
Leach, Victoria, Pharmacy Practice and Administrative Sciences
Lee, Brent, Dental Sciences
Lee, Carlton K.K.,* Pharmacy Practice and Administrative Sciences
Lee, David K., Pharmacy Practice and Administrative Sciences
Lee, Edith K., Pharmacy Practice and Administrative Sciences
Lee, Hope, Biological Sciences
Lee, Susan Clarke, Family Medicine
Leibrock, Larry R., Informatics Research Institute
Lemon, Chris, Pharmacy Practice and Administrative Sciences
Lenington, Michael, Biological Sciences
Lile, James Michael,* Pharmacy Practice and Administrative Sciences
Livingston, John M., Physician Assistant Studies
Lobb, Robert S., Physician Assistant Studies
Long, Robert, Pharmacy Practice and Administrative Sciences
Longley, Dennis, Informatics Research Institute
Lovegrove, Michael D., Pharmacy Practice and Administrative Sciences
Loeserman, Janet, Biological Sciences
Luedtke, Karla, Dental Hygiene
Luke, Sally Louise, Nursing
Lyons, Heidi Lynn, Education
Macbeth, Tamzen, Biological Sciences
Mack, Maureen C., Family Medicine; Pharmacy Practice and Administrative Sciences
Mackenzie, Deborah, Pharmacy Practice and Administrative Sciences
Magdanz, Stephanie, Pharmacy Practice and Administrative Sciences
Mahn, James, Geosciences
Malm, Cynthia, Law Enforcement
Malm, Scott, Physician Assistant Studies
Maloff, Stephen M., Family Medicine; Communication Sciences & Disorders, and Education of the Deaf
Malone, Richard E.,* Pharmacy Practice and Administrative Sciences
Mambourg, Scott E., Pharmacy Practice and Administrative Sciences
Mansfield, Mark, Family Medicine
Manske, Thomas, Pharmacy Practice and Administrative Sciences
Marchetti, Debbie, Pharmacy Practice and Administrative Sciences
Marecek-Kuwahara, Lynda J., Nursing
Marsh, Frederick, Pharmacy Practice and Administrative Sciences; Physician Assistant Studies
Martel, Edward James,* Pharmacy Practice and Administrative Sciences
Martens, Laurence, Physician Assistant Studies
Mathis, Lisa Crowley, Pharmacy Practice and Administrative Sciences
Matocq, Marjorie, Biological Sciences
Matunas, John, Dental Sciences
Maxwell, Preston, Pharmacy Practice and Administrative Sciences
May, Michael B., Education
Maynard, Richard M., Family Medicine; Physician Assistant Studies
McAndrews Jr., Kenneth L., Pharmacy Practice and Administrative Sciences
McComas, Bruce, Physician Assistant Studies
McCormack, John C., Pharmacy Practice and Administrative Sciences; Physician Assistant Studies
McDowell, Eric, Pharmacy Practice and Administrative Sciences
McEvoy, Barbara,* Pharmacy Practice and Administrative Sciences
McGee, Kara, Physician Assistant Studies
McGee, Kraig C., Family Medicine; Physician Assistant Studies
McGonigle, Terry, Biological Sciences
McGrath, Holly, Pharmacy Practice and Administrative Sciences
McInally, Jamey, Physician Assistant Studies
McInturff, Don E., Pharmacy Practice and Administrative Sciences
McKee, Deborah K., Pharmacy Practice and Administrative Sciences
McKie, Robert, Pharmacy Practice and Administrative Sciences
McKinlay, Kirt M., Physician Assistant Studies
McMinn, Jeff, Dental Sciences
McMurray, John, Dental Sciences
McRoberts, Andrew, Physician Assistant Studies
McRoberts, Drew, Family Medicine
Meadors, Larry, Dental Sciences
Meadows, Joan, Nursing
Mecham, Joshua, Pharmacy Practice and Administrative Sciences
Mello, James, Physician Assistant Studies
Merrill, Frank, Physics
Meyer, Larry, Pharmacy Practice and Administrative Sciences
Miano, Giovanni (John), Pharmacy Practice and Administrative Sciences
Mickelson, Michael R., Family Medicine, Physician Assistant Studies
Middlebrooks, Mark,* Pharmacy Practice and Administrative Sciences
Mikesell, Gail R., Nursing
Milford, Gordon, Pharmacy Practice and Administrative Sciences
Miller, A. E., Nursing
Miller, Allen, Pharmacy Practice and Administrative Sciences
Miller, Ronald E., Physician Assistant Studies
Mills, Allan, Pharmacy Practice and Administrative Sciences
Millward, Steven, Physics
Minich, Brian, Pharmacy Practice and Administrative Sciences
Minshall, Judy N., Biological Sciences
Mokaddem, Samir, Pharmacy Practice and Administrative Sciences
Moore, Diane, Sociology, Social Work and Criminal Justice
Morello, Candis M., Pharmacy Practice and Administrative Sciences
Morreale, Suzanne, Pharmacy Practice and Administrative Sciences
Morrill, Patricia, Military Science/ U.S. Army ROTC
Morrison, Bruce, Dental Sciences
Moulton, Ethan, Dental Sciences
Moulton, Rolf T., Informatics Research Institute
Moyer, Judith A., Nursing
Murphy, Patti, Nursing
Murray, David, Physician Assistant Studies
Murray, William Hugh, Informatics Research Institute
Naftz, Rhonda, Education
Nash, Barbara, Sociology, Social Work, and Criminal Justice
Nelson, David, Pharmacy Practice and Administrative Sciences
Nelson, Eric, Dental Sciences
Nelson, Kathleen, Nursing
Newby, Deborah, Biological Sciences
Newcombe, Edward H., Nursing
Newhouse, Kenneth E., Family Medicine; Physician Assistant Studies
Newkirk, Sue, Nursing
Newsom, Robert D., Pharmacy Practice and Administrative Sciences
Newsom, Teresa J., Pharmacy Practice and Administrative Sciences
Newton, Joel, Dental Sciences
Nguyen, Buu-An Ngoc, Pharmacy Practice and Administrative Sciences
Nguyen, Jim, Pharmacy Practice and Administrative Sciences
Nguyen, Mong Tu Pham, Pharmacy Practice and Administrative Sciences
Nielsen, Diane, Physician Assistant Studies
Nigg, David, Physics
Norman, Douglas, Family Medicine
O’Byrne, Brian E., Physician Assistant Studies
O’Neil, Jan, Pharmacy Practice and Administrative Sciences
Ogden, Heath, Biological Sciences
Olgivie, Anne, Nursing
Olsen, Richard, Biomedical and Pharmaceutical Sciences
Olsen-Fisher, Myrna, Nursing
Olyaei, Ali,* Pharmacy Practice and Administrative Sciences
O’Rear, Jim, Health Physics
Ostrom, Mary Beth, Pharmacy Practice and Administrative Sciences; Physician Assistant Studies
Otis, Mark, Health Physics
Otto, Paul, Pharmacy Practice and Administrative Sciences
Overstreet, Renee, Pharmacy Practice and Administrative Sciences
Owens, Kathy, Nursing
Pallini, Christine, Pharmacy Practice and Administrative Sciences
Panter, Liz, Sport Science and Physical Education
Parmley, Willis, Family Medicine
Parrish, William, Dental Hygiene
Parry, David, Family Medicine; Physician Assistant Studies
Patchin, Gary, Pharmacy Practice and Administrative Sciences
Patel, Gita, Pharmacy Practice and Administrative Sciences
Pattie, Ryan, Chemistry
Payne, Anne, Nursing
Pehrsson, Dale, Counseling
Perkel, Jeffrey M., Biological Sciences
Peterson, David A., Nursing
Peterson, Grant, Physician Assistant Studies
Pierce, Becky, Biological Sciences
Plummer, Mitchell A., Geosciences
Podany Jr., Joseph E., Physician Assistant Studies
Polson, Preston, Dental Sciences
Poreba, Jan, Pharmacy Practice and Administrative Sciences
Porter, Bryan, Dental Sciences
Porter, Chris, Nursing
Porter, John, Pharmacy Practice and Administrative Sciences
Porter, Warren, Biological Sciences
Poulson, Neil J., Biological Sciences
Powers, Vicki, Sociology, Social Work, and Criminal Justice
Price, Richard N., Pharmacy Practice and Administrative Sciences
Proctor, Brian Dale, Physician Assistant Studies
Przybylski, Kevin Gerard,* Pharmacy Practice and Administrative Sciences
Pucino Jr., Frank,* Pharmacy Practice and Administrative Sciences
Pullen, Gary K., Pharmacy Practice and Administrative Sciences
Pyatte, Michele A., Pharmacy Practice and Administrative Sciences
Quarder, Henrike Swantje, Biological Sciences and Chemistry
Raboy, Victor, Biological Sciences
Ragan, Neil, Family Medicine
Rakel, David P., Family Medicine
Ramos, Cathy, Pharmacy Practice and Administrative Sciences
Rassuchine, Alex, Pharmacy Practice and Administrative Sciences
Ravsten, Derie, Pharmacy Practice and Administrative Sciences
Ray, Andy, Biological Sciences
Reddish, Ed, Pharmacy Practice and Administrative Sciences
Reed, David, Biological Sciences
Reedy-Maschner, Katherine, Anthropology
Reichman, John B., Family Medicine
Reynolds, Linda L., Pharmacy Practice and Administrative Sciences
Reynolds, Timothy D., Biological Sciences
Rhodes, Teresa, Radiographic Science
Rich, Bryee, Health Physics
Rice, Margaret L., Pharmacy Practice and Administrative Sciences
Rieger, Craig, Electrical Engineering & Computer Science
Rittenour, Tammy, Geosciences
Ritter, Paul, Health Physics
Roberto, Francisco Figueroa, Biological Sciences
Roberts, Barbara, Physician Assistant Studies
Rohner, Clinton D., Pharmacy Practice and Administrative Sciences
Rusch, Kay Miller, Nursing
Ryan, Kenneth C., Family Medicine
Ryono, Jeanne, Pharmacy Practice and Administrative Sciences
Sachdeo, Rajesh C.,* Pharmacy Practice and Administrative Sciences
Sackett, Marlene N., Nursing
Salisbury, Catherine, Dental Hygiene
Salness, Ty, Pharmacy Practice and Administrative Sciences
Sandoval, Rheta A., Pharmacy Practice and Administrative Sciences
Santos, Tim, Pharmacy Practice and Administrative Sciences
Sawyer, Dennis, Pharmacy Practice and Administrative Sciences
Sayre, Tyler, Radiographic Sciences
Schafer, Thomas R., Pharmacy Practice and Administrative Sciences
Schafler, Hershel D., Pharmacy Practice and Administrative Sciences
Schiffman, Philip L.,* Pharmacy Practice and Administrative Sciences
Schmidt, Jim L., Counseling
Schneider, Tracy N., Pharmacy Practice and Administrative Sciences
Scholes, Chris, Physician Assistant Studies
Schrader, Brad, Physics
Roney, Tim, Physics
Rosentreter, Roger, Biological Sciences
Rossi, Joseph P.,* Pharmacy Practice and Administrative Sciences
Ruñ, Gene V., Family Medicine
Ruggerio, Robert J.,* Pharmacy Practice and Administrative Sciences
Ruppel, Linda, Dental Sciences
Rutsch, Bryan, Counseling
Ryan, Kenneth C., Family Medicine
Ryono, Jeanne, Pharmacy Practice and Administrative Sciences
Sachdeo, Rajesh C.,* Pharmacy Practice and Administrative Sciences
Sackett, Marlene N., Nursing
Salisbury, Catherine, Dental Hygiene
Salness, Ty, Pharmacy Practice and Administrative Sciences
Sandoval, Rheta A., Pharmacy Practice and Administrative Sciences
Santos, Tim, Pharmacy Practice and Administrative Sciences
Sawyer, Dennis, Pharmacy Practice and Administrative Sciences
Sayre, Tyler, Radiographic Sciences
Schafer, Thomas R., Pharmacy Practice and Administrative Sciences
Schafler, Hershel D., Pharmacy Practice and Administrative Sciences
Schiffman, Philip L.,* Pharmacy Practice and Administrative Sciences
Schmidt, Jim L., Counseling
Schneider, Tracy N., Pharmacy Practice and Administrative Sciences
Scholes, Chris, Physician Assistant Studies
Schrader, Brad, Physics
Schroeder, James, Physician Assistant Studies
Schubert, William, Family Medicine
Schuerman, Tina C., Biological Sciences
Schwan, Thomas G., Biological Sciences
Seoville, Craig, Biological Sciences
Seaman, R. Lynn Greenberg,* Pharmacy Practice and Administrative Sciences
Sedlmayer, George, Pharmacy Practice and Administrative Sciences
Selznick, Hugh, Family Medicine; Physician Assistant Studies
Sena, Gary, Physician Assistant Studies
Seyler, Michael, Physician Assistant Studies
Sharp, Linda, Sociology, Social Work and Criminal Justice
Shaw, James F., Criminal Justice
Shelton, Jodi, Sociology, Social Work and Criminal Justice
Shell, Dennis, Biological Sciences
Shelton, Jodi, Sociology, Social Work and Criminal Justice
Sherwin, Jo-Ann, Geosciences
Short, Rande, Physician Assistant Studies
Slay, Jill, Informatics Research Institute
Smith, David, Nursing
Smith Jr., Laurens H., Biological Sciences
Smith, Robert W., Geosciences
Smith, Ty, Family Medicine
Snapp, Kay, Nursing
Solbrig, Ronald, Director, Student Health Center; Affiliate Faculty, Family Medicine and Physician Assistant Studies
Sorensen, Michele, Sport Science and Physical Education
Spall, Jane, Nursing
Sparrell, Marvin, Nursing
Spritzer, David M., Nursing; Physician Assistant Studies
Stander, Michael D., Pharmacy Practice and Administrative Sciences
Standley, Elizabeth J., Pharmacy Practice and Administrative Sciences
Staples, Mary E., Pharmacy Practice and Administrative Sciences
Stark, Nola, Nursing
Stauts, Braden, Dental Sciences
Stephens, George H., Family Medicine
Stephens, James D., Geosciences
Stephens, Steve, Psychology
Stephenson, Thomas, Biological Sciences
Stephenson-Foltz, Leslie, Sociology, Social Work and Criminal Justice
Stevens, Dennis, Biological Sciences
Stewart, Kelley, Biological Sciences
Stille, Kristine A., Pharmacy Practice and Administrative Sciences
Stocking, Lisa, Family Medicine
Stone, Bob, Nursing
Stoutin, Sherry Dunn, Nursing
Struhs, Anna, Radiographic Science
Stucki, Kristen, Pharmacy Practice and Administrative Sciences
Sugden, Elizabeth, Nursing
Sullenger, Dorsie, Pharmacy Practice and Administrative Sciences
Suri, Jasjit, Electrical Engineering
Susla, Gregory M.,* Pharmacy Practice and Administrative Sciences
Sutton, Doug, Dental Sciences
Swaner, Derrick, Radiographic Science
Tadahara, Sami, Sports Science and Physical Education
Talboy, Frank, Pharmacy Practice and Administrative Sciences
Talboy, Glen E., Nursing
Tanner, Martha, Family Medicine; Physician Assistant Studies
Tarnasky, William G., Physician Assistant Studies
Taybos, George, Dental Sciences
Taylor, Carol, Nursing
Taylor, Donna, Pharmacy Practice and Administrative Sciences
Taylor, Timothy O., Physician Assistant Studies
Tefferi, Josephine, Pharmacy Practice and Administrative Sciences
Thane, Andrew, Pharmacy Practice and Administrative Sciences
Theise, Kristine L., Nursing
Thomas, Grant, Sociology, Social Work and Criminal Justice
Thomas, John H., Family Medicine; Pharmacy Practice and Administrative Sciences
Thomas, William, Sociology, Social Work and Criminal Justice
Thompson, Mary, Biological Sciences
Thompson, E. Gregory, Pharmacy Practice and Administrative Sciences
Thompson, Jack, Nursing
Thornton, Terry,* Pharmacy Practice and Administrative Sciences
Thorson, Chester C., Pharmacy Practice and Administrative Sciences
Tollinger, Brian, Pharmacy Practice and Administrative Sciences
Tovar, Diana, Pharmacy Practice and Administrative Sciences
Trosynski, Thomas J. (Tom), Pharmacy Practice and Administrative Sciences
Trotter, Jack F., Nursing
Tseng, Alice, Pharmacy Practice and Administrative Sciences
Unsworth, Virginia A., Sociology, Social Work and Criminal Justice
Van Ark, James, Physician Assistant Studies
VanArsdale, Robert W.,* Pharmacy Practice and Administrative Sciences
Vanek, David, Family Medicine; Physician Assistant Studies
Ver Hoef, Jay, Biological Sciences
Wade, Ken, Physician Assistant Studies
Walaliyadda, Ananda, Pharmacy Practice and Administrative Sciences
Waldrum, Sarah, Radiographic Science
Walogra, Heidi L., Sociology, Social Work, and Criminal Justice
Walker, Kris M., Pharmacy Practice and Administrative Sciences
Walker, Steve, Engineering
Walker, Timothy James, Nursing
Walsh, Guerin M., Physician Assistant Studies
Walus, Michael A., Family Medicine; Physician Assistant Studies
Wathne, Richard, Family Medicine
Watts, Barry, Counseling
Watwood, Maribeth, Biological Sciences
Wayment, Keth, Physician Assistant Studies
Weinberg, Holly, Biological Sciences
Weiss, Mick,* Pharmacy Practice and Administrative Sciences
Welch, E. Ben,* Pharmacy Practice and Administrative Sciences
Welhan, John A.,* Geosciences
Wells, David, Biological Sciences
Wells, Lisa, Radiographic Science
Wentworth, Kirk C., Pharmacy Practice and Administrative Sciences
Werner-Leap, Kathleen, Pharmacy Practice and Administrative Sciences
White, Deanna H., Sociology, Social Work, and Criminal Justice
White, Gregory J., Biological Sciences
Wise, David, Biological Sciences
Winterfeld, Gustav F., Pharmaceutical Sciences
Wolfgang, Roberta, Sociology, Social Work, and Criminal Justice
Winebarger, Jason, Physician Assistant Studies
Winget, Denise G., Biomedical and Pharmaceutical Sciences
Wright, Craig, Military Science
Will, George, Sociology, Social Work, and Criminal Justice
Willis Jr., Robert A., Informatics Research Institute
Winebarger, J., Physician Assistant Studies
Whiting, Craig, Police Science
Wright, Stoltz B., Sociology
Wright, Stoltz C., Sociology
Young, Michael K., Biological Sciences
Young, Jeff, Biological Sciences
Young, Michael K., Biological Sciences
Zager, Peter, Biological Sciences
Zaltzman, Arthur, Engineering
Zirker, Jed, Dental Sciences
Zuckerman, Norman, Nursing
Emeriti
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, 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 & Disorders, and Education of the Deaf. 1989-2004
Balsley, Ronald D., Professor, Marketing. 1978-2005
Beebe, Thomas G., Instructor, Electronics Technology. 1957-1989
Beake, Wendland, Research Professor. 1969-2010
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., 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
Browning 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
Cowles, Lois Anne, Associate Professor, Sociology, Social Work, and Criminal Justice. 1993-2003
Cresswell, Donald J., Associate Professor, Mathematics. 1968-2000
Croker, Robert, Department Chair, Human Resource Training and Development; Professor, Human Resource Training and Development. 1994-2012
Cullen, Carol, Instructor, Office Occupations. 1963-1990
Davis, Everett Eugene (Gene), Professor, Educational Leadership; Director, Intermountain Center for Education Effectiveness. (1992-2007)
Dial, Theresa Gail, Professor, Art. 1974-2009
Dolsen, Arthur, Professor, Foreign Languages. 1983-2009
Downing, Joan K., Public Services Director, Library (equivalent rank, Professor). 1969-1986
Dundas, Mary L.,* Director, Dietetics; Professor, Health and Nutrition Sciences; Registered Dietitian. 1996-2009
Eastman, Philip, Vice President for Financial Services. 1956-1988
Edgar, Thomas E., Professor, Counseling Education. 1966-1987
Edwards, Marilyn, Instructional Program Coordinator, Culinary Arts Technology. 1966-1997
Eiland, Leann, Senior Instructor, General Education. 1981-2007
Ekstrom, Grant, Instructor, Diesel/Diesel Electric Technology. 1973-1996
Enloe, Linda J.,* Associate Professor, Psychology. 1974-2007
Faler, 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
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., Professor, Mathematics. 1984-2009

Francis, Jr., Charles A., Associate Professor, Radiographic Science. 1987-2011

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

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


Herzog, Anita, Professor, Dental Hygiene. 1978-2008

Hill, Linda Charlotte, Associate Professor, Mathematics. 1976-2006

Hill, Richard, Professor, Mathematics. 1967-2012

Hitchcock, Leonard A., Associate University Librarian, Collection Development (equivalent rank, Professor). 1984-2006

Hjelm, Victor S. “Butch,” Dean, College of Arts and Sciences; Professor, Political Science. 1968-2001

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, Psychology. 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

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

Jones, Gordon F., Associate Dean, School of Applied Technology. 1968-1995

Jue, Sandra, Clinical Professor, Pharmacy Practice and Administrative Sciences. 2005-2012

Kawamura, Carole J., Assistant Professor, Dental Hygiene. 1975-2002

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. 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

Kovacs, Rudolph, Department Chair, Art and Pre-Architecture, Professor, Art. 1980-2012

Kratz, Lawrence J.,* Professor, Mathematics. 1966-2010

Krisky, Delane C., Associate Dean, College of Health Professions; Professor, Health and Nutrition Sciences and Biological Sciences. 1974-2008

Kunze, Jay, Professor, Nuclear Engineering. 1995-2012

Lang, Patrick, Professor, Mathematics. 1985-2012

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

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

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. 1971-2000

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


Mullin, Anne E., Associate Professor, English and Philosophy. 1990-2000

Myers, Rosemary N., Director, Individualized Education Programs; Assistant Professor, English and Philosophy. 1960-1999

Newsome, Jack D.,* Associate Professor, Educational Foundations. 1997-2011

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, Professor, School Psychology. 1996-2012

Ore, H. Thomas, Professor, Geology. 1963-1997

Owens, John “Jack” B.,* Professor, History. 1975-2011

Paarmann, Carlene S.,* Professor, Dental Hygiene. 1976-2011

Parker, Barry R., Professor, Physics. 1967-1997

Parker, Stephen K., Associate Professor, Mathematics. 1972-2002

Pawar, Shelwant B., Professor, Management. 1967-1999

Pehrsson, Robert S.,* Professor, Teacher Education. 1980-2003

Pein, Deborah, Assistant Professor, General Education. 1988-2012

Peña, Sally J.,* Professor, Educational Foundations. 1990-2010

Pierson, Donald S.,* Professor, Sociology, Social Work and Criminal Justice. 1985-2011


Pridy, Kathleen S., Senior Instructor, Office Technology. 1976-2005


Rankin, Roger A.,* Professor, Educational Foundations. 1981-2011

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

Sahlberg, Jeanne H., Instructor, Office Occupations. 1967-1990

Salzman, Stephanie, Professor, Teacher Education. 1986-2002

Sato, Alyce, Associate Professor, Nursing. 1976-2004

Schneider, Audrey D. (Weston), Associate Professor, Speech-Language Pathology. 1990-2005

Schow, H. Wayne, Professor, English and Philosophy. 1967-1999

Schow, Ronald L., Professor, Audiology. 1975-2007

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

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

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


Walsh, Dennis M., Professor, English and Philosophy. 1979-2004

Walsh, Mary Ellen,* Professor, English and Philosophy. 1971-2002

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, Professor,

Wiegand, Gayl H., Professor, Chemistry. 1965-2004

Wilson, Albert E.,* Professor, Engineering and Nuclear Science, 1966-1995

Wissa, Maher F., Professor, Geomatics Technology. 1993-2008

Intercollegiate Athletics—Directors and Coaches

Bailey, Donald Lee, Jr., Associate Head Coach / Offensive Coordinator / Quarterbacks, Football

Beall, Stephanie, Assistant Coach, Soccer

Brock, Thomas, Assistant Athletic Trainer

Campbell, Robert M., Head Coach for Strength & Conditioning

Collins, Jay, Assistant Coach, Men’s Basketball

Cooper, Roger, Running Backs Coach, Football

Cowles, Parker, Assistant Coach, Cross Country

Cross, Sheldon, Inside Wide Receivers Coach, Football

Dinkins, Laura, Assistant Coach, Women’s Basketball

Erickson, Michael, Assistant Coach, Golf

Evans, William, Head Coach, Men’s Basketball

Ferriter, Mike, Assistant Coach, Football

Finch, Daryl, Assistant Athletic Trainer

Fisher, Keisha, Assistant Coach, Volleyball

Freeman, Quinton, Director of Football Academics

Gianotti, Tony, Assistant Coach, Women’s Basketball

Gibson, Allison R., Head Coach, Women’s Soccer

Goetz, Robert, Head Coach, Tennis

Gorney, Allison M. Assistant Coach, Volleyball

Graziano, Nancy, Associate Athletic Director for Student Support Services and Senior Woman Administrator

Hooper, Kellie, Head Coach, Golf

Hussman, Caleb, Assistant Coach, Soccer

Janssen, Brian, Head Coach, Cross Country / Assistant Coach, Track and Field

Kramer, James, Assistant Athletic Director for Financial Services

Kramer, Michael, Head Coach, Football

Manchan, Kolissa, Head Coach, Dance

McMillan, Jay, Assistant Athletic Director for Major Gifts

Nielsen, Dave, Head Coach, Track and Field

Nkele, Kemie, Assistant Coach, Women’s Basketball

Payne, Brandon, Assistant Athletic Trainer

Rodel, Mark G., Assistant Coach, Tennis

Rogers, Jessica, Assistant Coach, Softball

Schaack, Steve, Assistant Athletic Director for Media Relations

Sobolewski, Seton, Head Coach, Women’s Basketball

Steuart, Matthew C., Assistant Athletic Director for Academics

Stucki, Misty D., Head Coach, Cheerleading

Teichert, Chad, Head Coach, Volleyball

Toone, Spencer, Assistant Coach, Football

Troxell, Matthew, Inside Wide Receivers Coach / Special Teams, Football

Walker, Zachary, Interim Director of Compliance

Walsh, Timothy, Assistant Coach, Men’s Basketball

Ward, Andy, Assistant Coach, Men’s Basketball

Wotowey, Jodi, Head Athletic Trainer

Wright, Julia, Head Coach, Softball

Yizar, James ‘Bird’, Assistant Athletic Director for Student Success