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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 admission 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 an 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 subscribes to the principles and laws of the State of Idaho and federal government, including applicable executive orders pertaining to civil rights, and all rights, privileges, and activities of the University are made available without regard to race, creed, color, sex, age, disability, or national origin. The University is an Equal Opportunity and Affirmative Action employer. Evidence of practices which are not consistent with such a policy should be reported to the Affirmative Action Office, Museum Building Room 420. The Affirmative Action Office reports to the Office of the General Counsel.

Postmaster: Standard bound printed matter postage paid at Pocatello, Idaho. The Idaho State University Undergraduate Catalog is published annually in the spring. The Graduate Catalog is published annually in the spring. Copies are made available through the Bookstore. The Undergraduate Catalog is published by the Office of the Provost and Vice President for Academic Affairs, 921 S 8th Ave. Stop 8063, Pocatello, Idaho 83209-8063.

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## 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
- **O** Pre-Professional Program
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- **PharmD MBA** Combined Doctor of Pharmacy and Master of Business Administration
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- **T** Track
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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/planning.html

Bachelor’s and master’s degrees in a variety of fields are awarded by the College of Arts and Sciences, College of Business, College of Education, College of Engineering, Casiski College of Health Professions, College of Pharmacy, 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 and Advanced Technical Certificate programs of varying lengths, an Associate of Applied Science degree, a Bachelor of Applied Technology degree, and several Bachelor’s degrees are included in the curricula of the College of Technology.

Role and Mission

Idaho State University is a broad-based regional public doctoral research University, providing a broad range of educational services to a culturally diverse population of students and to the state. The University is Idaho’s center for education in the health professions. Idaho State University offers a wide array of academic programs: in the health professions and related biological and physical sciences and educator preparation (its areas of primary emphasis); in business and engineering education and technical training (its areas of continuing emphasis); and in the liberal arts. It is committed to maintaining a strong liberal arts and sciences program as the basis of other academic disciplines and as an independent, multifaceted field of inquiry. The University offers graduate programs in a number of fields and is a national center for the Doctor of Arts degree. Its College of Technology provides high-quality education and training in response to the needs of students and private industry. Idaho State University is dedicated to excellence in teaching. The University engages in sustained and significant research as an essential component of its academic and public service programs. It views public service as an integral part of its mission. Idaho State University is committed to providing accessible, high quality education to the diverse citizenry of its region and state, and delivers comprehensive and creative outreach programs using the latest available technology. The University works in collaboration with other state and regional postsecondary institutions in serving its constituencies. The University offers a range of academic and support services to help all students succeed. It encourages student and public participation in its cultural, recreational and athletic programs, and welcomes the continuing involvement of alumni and other friends in its endeavors.

Idaho State University...

–is a broad-based regional public doctoral/research university...

Idaho State University provides both general education and specialized programs and fulfills a community college role. It offers certificates, associate, baccalaureate, master’s and doctoral degrees, and post-doctoral residency programs. The University serves the current and emerging needs of the state and region through its wide range of education, research and public service programs for students, the general public, public agencies, and private industry.

Idaho State University is committed to serving the higher education needs of the citizens of the state and the intermountain region. The University seeks to attract and retain high quality undergraduate and graduate students from Idaho and the Intermountain West, while regarding eastern Idaho—an area including the Magic Valley east to Wyoming, north to Montana and south to Utah—as its primary service area.

–is Idaho’s center for education in the health professions...

The University serves as Idaho’s lead institution for education in the health professions and related biological and physical sciences. Idaho State University delivers statewide comprehensive academic programming, professional continuing education, basic and applied research, and specialized public service in the health sciences.

–offers an array of academic programs...

Idaho State University offers students a full range of academic programs, including majors in the liberal arts and a number of professional fields—the health sciences, business, education and engineering. All Idaho State University academic programs strive for the highest standards of academic excellence, and are responsive to the changing and increasingly complex needs of students and the professions they serve. They recognize that ongoing research is critical to maintaining that excellence and to providing high quality service to public agencies, private enterprise and to the citizens of Idaho.

–has a primary emphasis in educator preparation...

The State Board of Education has designated educator preparation as a primary emphasis area at all Idaho universities. Idaho State University views this area as a field of major importance. The University provides strong educator preparation programs as well as a comprehensive outreach component, serving school districts throughout Idaho.

–is committed to maintaining a strong liberal arts program...

Idaho State University recognizes that the heart of its undergraduate program is its rigorous liberal arts core—its arts and sciences curricula. These programs provide focused study in arts and sciences, essential general university courses, and the foundation for an understanding of other disciplines. Their emphasis on critical thinking skills.
is essential to the lifelong education of an informed citizenry. The liberal arts must remain strong and responsive to the needs of students, of other academic units at the University, and the professions which its graduates enter.

–offers graduate programs in a range of disciplines...
Idaho State University’s Graduate School fosters and coordinates an array of high quality post-baccalaureate programs at the Master’s and Doctoral levels. The graduate school encourages monitoring of students by faculty and provides support for research activities throughout the University. The graduate school is committed to increasing public awareness of the importance of the University’s Doctor of Arts program and its role as a national center for that program.

–provides high quality applied technology programs...
Applied technology programs help Idaho State University fulfill its community college function and are responsive to the emerging needs of business and industry. These programs are well-coordinated with university academic courses, particularly those designated as primary emphasis areas. The College of Technology designs and provides programs in response to the employment and economic development needs of the region and state.

–is dedicated to excellence in teaching...
Idaho State University recognizes the importance of effective teaching and provides regular instructional improvement opportunities for all faculty. Part-time faculty and graduate students who teach are given appropriate guidance and oversight, and are expected to participate, along with full-time faculty, in activities related to instructional improvement. Teaching excellence is recognized and rewarded by the University.

–engages in sustained, significant research...
Idaho State University recognizes that ongoing research is essential to increasing our understanding of the world around us, to developing quality instruction, to promoting economic development and enhancing the quality of life. The University will encourage, support and reward quality research activity, particularly that which is related to its mission and to the needs of communities, businesses and industries in the region.

–considers public service an integral part of its mission...
The University views professional and public service as a crucial component of its role as a public institution, and will continue to provide a wide range of programs and services in response to the changing needs of the citizens of Idaho. The public service work of faculty, staff and students is recognized and rewarded.

–provides accessible, high quality education...
Idaho State University is committed to serving the citizenry of the region and state through an open enrollment policy for general university students. The University encourages and respects diversity among its students, faculty and staff. Idaho State University maintains high academic standards though a carefully managed process designed to provide the greatest opportunity for academic success for entering students.

–delivers comprehensive and creative outreach services...
Idaho State University provides degree and non-degree outreach programs in a coordinated, integrated effort which is responsive to the needs of students. Outreach efforts are clearly related to the University’s statewide and regional missions, and provide high quality programs in the most effective and efficient manner possible, through on-site classes taught by faculty and via telecommunications or other distance learning systems.

–offers a range of academic and support services to students...
Idaho State University’s student services programs are committed to the development of the whole person, and recognize that each student is unique and has worth and dignity. The Division of Student Affairs, Offices of Enrollment Planning and Academic Services and faculty offer programs to meet the current and projected needs of students. These offices provide programs on admissions, advisement, counseling and advising, registration, financial aid, health care, child care, housing, employment, career and personal counseling, testing, academic skills development and placement. Student organizations and campus committees provide opportunities for personal and social growth.

–encourages student and public participation in a variety of cultural programs...
Idaho State University offers its students and all Idaho citizens a chance to participate in, learn from, and simply enjoy a variety of cultural programs and events in music, the visual arts, drama and natural history, to name a few. The Idaho Museum of Natural History, designated as a state museum, provides visitors with a window on Idaho’s past. The museum offers Idahoans and students at any educational level an array of on-campus and outreach programs about our natural heritage.

–encourages student and public participation in a variety of recreational and athletic programs...
Recreational and athletic programs are integral parts of the University, offering diverse opportunities for student competition and public involvement. The programs are guided by the principle that student-athletes are students first, with their academic success as the first priority. The public service work of these programs provides encouragement and instruction to young student-athletes throughout the region. They foster and enhance a positive institutional spirit and sense of community through their on-campus and outreach efforts.

–welcomes the involvement of alumni and other friends...
Idaho State University’s extended community includes its alumni and other friends—citizens of Idaho and from around the world who maintain an active interest in, and who may wish to support, the development and progress of the University. Idaho State University welcomes their ongoing involvement in its endeavors. The University strives to keep them informed about its activities, and to provide them with opportunities for participation in a range of programs serving the educational needs of the state and region.
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 in Health Administration
- Association to Advance Collegiate Schools of Business
- Automotive Service Excellence
- Commission on Accreditation for Dietetics Education
- 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 for Exceptional Children
- 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. Similar requirements for assessment also appear in the new guidelines issued by the Northwest Commission on Colleges and Universities which provides Idaho State University’s institution-wide accreditation.

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

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

Federal Family Education Rights and Privacy Act of 1974

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

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

A student may restrict release of all directory information by filing a Declaration of Non-Disclosure of Educational Record Information form in the Office of Registration and Records. A student may choose to restrict release of their address and telephone listings only. This may be done through their MyIdaho State University portal by accessing the Student Address Change Request form under Student Records Information. This restriction will apply to the students’ address and telephone listings only, all other directory listings will continue to be available for release.

Students must request complete directory information restriction or address/phone listings restrictions during the first week of fall term to prevent their information from being published in the Student Directory. Any restriction is permanent and remains in place even after the student has stopped attending or has graduated from the University unless the student requests, in writing, that it be removed. Additional FERPA information may be found on the web at: http://www.isu.edu/areg/ferpa-facts.shtml

Alumni Association and Foundations

Alumni Association

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

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

The association is governed by a board of directors and administered through the office of Alumni Relations, 554 S. 7th Avenue, Pocatello, in the H. F. Magnuson House.
Specific goals are to identify alumni and friends to assist Idaho State University in strengthening support from its constituencies, to inform alumni and friends about Idaho State University; to provide for the efficient management of the Alumni Association, and to involve and motivate alumni and students to maintain their affiliation and support of Idaho State University. The officers and directors meet three times a year with the director of alumni relations, who is appointed by the University administration.

The Idaho State University 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.

Physical Facilities and University Services

The Idaho State University campus is situated on 240 developed acres of its 1,100 acres of property. Its 105 buildings are surrounded by 180 acres of attractively maintained landscape. There are over 5,600 parking spaces available throughout the campus.

For convenience, a free on-campus shuttle bus is available during the fall and spring semesters. Riding a bicycle is also a popular way to get around campus. The campus is located just off of the interstate, making access very easy. The University commuter bus system brings students to the campus from over one hundred miles away from Rexburg, Idaho Falls and areas in-between. A commercial bus service is also available from Twin Falls and surrounding areas to campus.

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 2007). The Rendezvous is a new 256,000 square foot, multi-use facility located in the center of campus and contains 82 new student suites that house 300 students, a 40 classroom academic building with a 250 seat lecture hall/future planetarium, a new core food service facility to serve housing students and retail customers, as well as a 120 seat drop-in computer lab and numerous styles of study and relaxation spaces. This expansive facility creates a new living, learning, studying, social and academic heart for the campus.

The L. E. and Thelma E. Stephens Performing Arts Center, completed in 2004, is located on 16.8 acres, high on a hill on the perimeter of the campus, adjacent to Interstate 15. This 123,000 square foot facility includes a 1,200 seat concert hall, an elegant rotunda, a 446 seat thrust theatre, and a 200 seat black box theatre. The three-level concert hall, the Center’s largest venue, incorporates state-of-the-art design and technology to optimize sound. The Center also includes classroom space, offices for the Department of Theatre and Dance, and a conference room. The facility and the various, wonderful performances it holds 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. The building is planned 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 hydrogen lab, advanced materials lab, imaging suite, radio chemistry and chemistry labs, systems modeling, power wall, and visualization cave.

Scheduled to open in August 2009, a 46,000 square foot ISU-Meridian Building will include programs with an emphasis on health sciences, beginning with programs already leasing space in Boise 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. Since 1987, the Dodge National Circuit Finals Rodeo has brought rodeo circuit champions from across the country to compete for the National Circuit Championship in Holt Arena.

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 scheduled for completion in March 2010 will include weight, cardio, and fitness
areas, dance/multipurpose rooms, offices, and lobby.

Historic Davis Field provides a well-maintained, multi-use field and outdoor running track where Idaho State University hosts a variety of events including soccer and track tournaments and Special Olympics. Bartz Field is a 30 acre, dog-friendly field used for events such as softball, archery, sledding, cross country, golf, and rugby. The Pocatello Greenway passes through the campus above Davis Field, connecting with several 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, bike trails, jogging trails, hiking areas, and walking paths are part of the Idaho State University campus, and softball, track, ultimate frisbee, soccer, and rugby are all options for the active student. Summer and winter sports including skiing are also available only minutes away in the beautiful mountains surrounding the city.

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 Boise.

**Bookstore**

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

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

Textbooks may be purchased online using our [eFollett.com](http://eFollett.com) service or a student’s ISU Portal. See the link, “Buy Books.”

The Bookstore maintains a branch office in Idaho Falls (Idaho State University-Idaho Falls, (208) 282-7940) and Twin Falls (CSI Bookstore, (208) 733-9554). At some other outreach locations (Soda Springs, Rexburg), faculty will sell books the first night of class. Elsewhere (Boise, Twin Falls), students use local bookstores or internet book sources.

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 used book price.

**Information Technology Services**

Information Technology Services (ITS), located in the basement of the College of Business building, is dedicated to meeting the computing needs of students. Kiosk computers are installed in numerous locations throughout campus to provide fast and convenient stand-up email and Internet access. Nine computer labs in Pocatello, three in Idaho Falls, two in Meridian, and one in Twin Falls are open to Idaho State University students. Additional computer labs with specialized discipline-specific software, operated by individual departments, but supported by ITS, are also available. Use of the computer labs, kiosks, wireless network and most departmental labs require the purchase of an Idaho State University Computer Account (currently $35.00 per semester and $25.00 summer).

Idaho State University Computer Accounts may be purchased at the IT Service Desk in Pocatello (BA-B9 and Rendezvous Computer Lab), and in the Idaho State University-Idaho Falls, Idaho State University-Twin Falls and Idaho State University-Meridian computer labs. The account allows access to the computer labs, kiosks, data storage, personal web page, printing, access to email and the Idaho State University wireless network. Some courses require an Idaho State University Computer Account.

The IT Service Desk, [help@isu.edu](mailto:help@isu.edu) or 208-282-HELP (4357), provides support to students accessing ISU’s information technology services, such as Moodle ISU and e-mail from personal computers and laptops. Students may also visit our IT Service Desk locations wherever Idaho State University Computer Accounts are sold (locations listed above).

Idaho State University’s home page, [http://www.isu.edu](http://www.isu.edu), provides access to a wide variety of university information (such as web-based course material, campus events, online library access and this Catalog). All admitted students have a personal customizable Web portal found at [http://my.isu.edu](http://my.isu.edu). All enrolled students are provided an Idaho State University email account.

Students are encouraged to use the online technical support page at [http://help.isu.edu](http://help.isu.edu).

For more information about ISU’s Information Technology Services, visit [http://www.isu.edu/its](http://www.isu.edu/its) and the Computer Labs & Technology web site found on Idaho State University’s “Current Student” home page ([http://www.isu.edu/current.shtml](http://www.isu.edu/current.shtml)).

**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 division curators and collections managers. Significant collections include the Earl J. Davis Herbarium, Affiliated research institutes include the Center for Archaeology, Materials, and Applied Spectroscopy (CAMAS), the GIS Center, the Quaternary Research Group, the Informatics Research Institute, and the Don Crabtree Experimental Archaeology Lab.

Curators in Anthropology, Earth Science and Life Science lead national and international research in Quaternary studies. Our active research profile supports acquisition and use of collections for research and education. Undergraduate and graduate 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.

The Museum offers undergraduate and graduate students educational credits under Museum prefixes and through courses in Anthropology, Biology, Education, Geo-
science, History, and other affiliated Idaho State University departments.

The Idaho Museum of Natural History galleries are open from 12 - 5 p.m., Tuesday through Saturday, except for Federal and State holidays. There is no admission fee.

**Student Unions**

The Earl R. Pond Student Union (Pocatello) serves the campus as the focal point for experiential education. Among its many facilities are lounges, check cashing service, automatic teller machines, food service areas, bowling, billiards, film theater, computer lab, copy service, balcony, barber shop, bookstore, meeting rooms, guest rooms, and much more. The facilities are in constant use by students, organizations, University departments, and community groups.

The Pond Student Union and the Union Hypostyle house other offices in addition to the office of the Associated Students of Idaho State University (ASIdaho State University). Student Affairs offices in the hypostyle include those of the Vice President for Student Affairs, Associate Dean of Students (University Judicial Officer), and the Student Affairs Development Officer. Other offices within the building include C.W. HOG, Craft Shop, Idaho State University Mail Center, KIdaho State University-FM Public Radio, Multicultural and International Education Center, Outdoor Program, Student Activities Board, Scheduling and Event Services, Student Organizations and Greek Life, Students’ Community Service Center, University Food Services, Wilderness Rental Center, and the student newspaper.

The Samuel H. Bennion Student Union (Idaho Falls) also serves as a focal point for experiential education. Among its services are lounges, automatic teller machines, 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.

**University Housing**

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

The mission of University Housing is to provide secure, clean, and affordable living-learning environments that promote student engagement by encouraging and supporting opportunities for academic success, personal development, community building, and the well-being of each individual resident.

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 on the left. Then select either the residence hall or apartment application. First-year students can only sign up for the residence halls. If you have questions please email reslife@isu.edu.

**Housing Options**

University Housing offers traditional and suite-style residence halls. On-campus apartments are available for sophomores and above, married students, and students with children. Floor plans, photos, and virtual tours, as well as cost information, can be found on our website at www.isu.edu/housing. The Housing fee covers all utilities, as well as local telephone service, basic cable television, and wireless internet (internet service requires an ISU computer account).

**Food Service**

University food service is required for first and second-year students living in the residence halls, and is an option for other students.

**University Library**

The University Library, named for its past Director, Eli M. Oboler, contains major collections of books, periodicals, electronic resources, maps, microforms, and government publications and provides a full range of services to students, faculty, and staff. The library collection of 700,377 book and serial volumes and its 4,576 active journal subscriptions in all formats are accessible) through its automated catalog and circulation system, or it’s A-Z Journal List, both available through the library web page. In addition, the library provides access to numerous databases, many of them with full-text content providing access to an additional 63,711 journals. The University Library has been a depository for federal publications since 1908 and for State of Idaho publications since 1972. The government publications collection contains over 445,024 printed items and approximately 1,964,868 items published in microform.

General reference service is provided on the first floor, where librarians are available to assist patrons in the use of over 89 databases and other reference resources. Library instruction is available to classes and student groups and is tailored to address students’ specific needs, from general library orientation to subject-specific bibliographic research. In addition to supplying informational materials from its own collections, the library provides an 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.

Boise
A similar agreement in Boise provides ISU students and faculty the same library privileges accorded to BSU 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.

Graduate Programs and Graduate Courses
Idaho State University offers many masters 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 500 series with permission. Enrollment in graduate courses requires admission to graduate school, except the professional development courses which are the 597 series. For additional information regarding graduate courses and programs of study, please see the Graduate Catalog.
Undergraduate Admission

Office of Admissions
921 S 8th Ave. Stop 8270
Pocatello ID 83209-8270
(208) 282-2475
http://www.isu.edu/enroll/admissions/
email: info@isu.edu

Admission Process
Note: The following information applies to undergraduate students applying for admission to academic programs. Students seeking information regarding admission to Applied Technology programs are encouraged to 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/enroll.

Typically, the Office of Admissions notifies students of admission decisions within 10 days of receiving the student's completed application. Decisions may be delayed if documentation is incomplete upon submission. Although some admission decisions may be made without all required documentation, students must submit all appropriate admission documentation prior to registration; otherwise the University reserves the right to restrict registration.

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

<table>
<thead>
<tr>
<th></th>
<th>Freshmen and Transfer Applicants</th>
<th>International Applicants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall Semester</td>
<td>August 1</td>
<td>June 1</td>
</tr>
<tr>
<td>Spring Semester</td>
<td>December 1</td>
<td>October 1</td>
</tr>
<tr>
<td>Summer Semester</td>
<td>Open</td>
<td>Applications not accepted</td>
</tr>
</tbody>
</table>

New Freshmen

Applicants are considered new freshmen if they are:
1. Students who have never attended a college or university,
2. Transfer students who have fewer than 14 transferable semester credit hours, or
3. Students who have participated in an early college or concurrent enrollment program while still classified as a high school student.

Application Steps
1. Apply for Admission--the form is online at apply.isu.edu
2. Pay $40 Nonrefundable Application Fee
3. Submit official ACT or SAT Scores. (Students 21 years or older are exempt from submitting ACT/SAT scores).
4. Students applying for the fall semester should submit an official 11th or 12th grade high school transcript (transcript should be sent by the high school in a sealed envelope)
5. After high school graduation, submit official final high school transcript with graduation date posted (transcript should be sent by the high school in a sealed envelope)

New Freshmen Admission Requirements

The following college entrance core subject requirements were established by the State Board of Education and implemented beginning in the Fall semester of 1989. New freshmen must meet these minimum credit requirements with a predicted GPA of 1.5 to be eligible for Assured Admission (for more information on Idaho State University’s predicted GPA see Acceptance and Registration Levels section below); otherwise applicants may be admitted conditionally, or admission will be deferred. Students must comply with the requirements at the time of their high school graduation. Requirements for each subject area are shown below.

<table>
<thead>
<tr>
<th>Subject</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>8 credits</td>
</tr>
<tr>
<td>Mathematics</td>
<td>6 credits</td>
</tr>
<tr>
<td>Natural Science</td>
<td>6 credits</td>
</tr>
<tr>
<td>Social Science</td>
<td>5 credits</td>
</tr>
<tr>
<td>Humanities/Foreign Language</td>
<td>2 credits</td>
</tr>
<tr>
<td>Other college prep</td>
<td>3 credits</td>
</tr>
</tbody>
</table>

Assured Admission

Freshmen applicants who meet core requirements with a core GPA of 2.0 or above, OR students whose predicted Idaho State University GPA is 1.5 or above may meet Assured Admission requirements.
Conditional Admission

Degree seeking applicants who do NOT meet the minimum credits required in the high school core subject areas, or who have an Idaho State University predicted GPA below 1.5 may be considered for Conditional Admission. Students admitted to the University conditionally may need to comply with credit hour restrictions, enter into an admission agreement, or complete additional placement exams prior to registration.

Applicants may be admitted conditionally by submitting two of the four following requirements:

1. General Educational Development (GED) average score of 450, with no individual scores lower than 410.
3. Combined SAT Verbal and Math score of 860.
4. Passing score on COMPASS exam.

Persons who are at least 21 at the time of their first application to attend Idaho State University are exempt from taking the ACT, SAT, or COMPASS exam if they provide a qualifying GED score.

Conditional admission is not a probationary status. Students conditionally accepted are not restricted from being considered for scholarships and have the rights and privileges granted all students. However, conditionally admitted students may be assigned registration levels (see below) at the discretion of the Office of Admission or the Admission Committee.

Acceptance and Registration Levels

Students accepted in either the Assured or the Conditional Admission category are assigned an academic advisor and are assigned to one of two registration levels according to a predicted Idaho State University grade point average (GPA) based on a weighted combination of the core subject high school GPA and ACT Composite Score or SAT (Verbal + Math) total score.

**Level 2:** Students are assigned Level 2 status if their predicted first semester Idaho State University GPA is 2.00 or higher. Students admitted at this level may enroll for up to a maximum of 18 credits without special permission.

**Level 1:** Students are assigned Level 1 status if their predicted first semester Idaho State University GPA is less than 2.00. Students assigned to this level may enroll for no more than 13 credits per semester. They also meet with an assigned academic advisor who helps plan a schedule of classes that meets their needs and utilizes support services. Course schedules must be approved by an assigned academic advisor. Students in Level 1 status who complete at least four college level courses (not including developmental coursework), a minimum of 12 credit hours, and have an Idaho State University GPA of 2.00 or better will be allowed to register as Level 2 students in subsequent semesters.

Petitions

Applicants unable to provide two of the four conditional admission requirements as outlined above (or transfer students who are being considered for probationary admission) may deserve further consideration for admission because of special circumstances. Applicants may submit an Admission Petition to the Office of Admission explaining why they feel they can be successful at Idaho State University and documenting their extenuating circumstances. Letters of support from counselors, parents, teachers, etc., on the student's behalf are encouraged. The petitioning applicant must also demonstrate evidence of suitable academic preparation.

All Admission Petitions are reviewed by an Admission Committee comprised of representatives from the University including a faculty person, student, professional staff from the Counseling and Testing Center, TRIO Student Services, the ADA and Disabilities Resource Center, the Athletic Department, Enrollment Planning and Academic Services, Academic Advising, and/or Registration and Records.

Petitioning applicants may be asked to complete a placement exam prior to an admission decision. If conditionally admitted, successful petitioners may be asked to sign an “admissions agreement” which may limit the number of credits a student may attempt, register for developmental courses, and meet regularly with an assigned advisor.

Deferred 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 an accredited college or university. Students may also re-apply if they receive passing Test of Adult Basic Education (TABE) exam scores after additional preparation.

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. Submit a final, official transcript from each college previously attended--transcripts must be sent directly to the Office of Admission from the Records Office of the previous institution.
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

Students having a cumulative transfer grade point average (GPA) of 2.0 may be assured admission to the appropriate class standing upon prior presentation of official credentials.

Probationary Acceptance

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 Petitions under New Freshmen Conditional Admission), may be considered for probationary acceptance to the University, and may be asked to sign an admission agreement.
Transfer Credit Evaluation

Transfer credits will not be evaluated until the student has applied for admission and has furnished the Office of Admissions with official transcripts. Students transferring 58 or more credits to Idaho State University will be blocked from registering until they have declared their major with the appropriate academic department.

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. A specific transfer grade point average is calculated separately, and a cumulative GPA is figured combining credits and grades from all previous institutions. Transfer credits from non-U.S. colleges/universities are recorded with grades of satisfactory/unsatisfactory.

Transfer Credit Limitations

Junior and Community Colleges
Students transferring from a regionally accredited Junior College or Community College may transfer a maximum of 70 credits to Idaho State University.

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 v. Upper Division Transfer Credit
Credits are transferred to Idaho State University at the level earned at the institution of origin. Transferred lower division (100 and 200 level) credit may NOT count as upper division (300 and 400) 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/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. academically 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/degree program at Idaho State University, including prerequisites to courses that may be on the Idaho State University General Education course list.

3. Records from students who do not meet either of the above criteria will be reviewed to determine fulfillment of Idaho State University general education core courses. Students who, after transfer credits are evaluated, have 58 or more transfer credits, will be given special consideration.

Departmental Prerequisites and Lower Division Requirements

Even students who have met the general education core will be required to take any course that is a prerequisite to a higher level course and/or is required by the student’s major.

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. In such instances, careful selection may enable the student to progress more efficiently by submitting the necessary admission documents early so they may be cleared to preregister for classes early. Those submitting application materials late cannot be assured of registration for the current semester.

Transfer Students with fewer than 58 Credits
Students who transfer to Idaho State University with fewer than 58 credits and without an earned A.A., A.S., or A.A. & S. degree from other institutions must complete the General Education Requirements at Idaho State University as previously stated. Work taken at other institutions is reviewed on a course-by-course basis to determine which Idaho State University General Education Goals are met. Goals not met with transferred course work must be satisfied by Idaho State University courses listed as meeting those goals.

Transfer Students with 58 credits and/or with an A.A., A.S., or A.A.&S. Degree
Students who have earned the A.A., A.S., or A.A.&S. degree (in 1995 or later) from a U.S. academic regionally accredited institution and/or who have met Idaho State Board core subject requirements are excluded from the provisions as stated below for students transferring 58 or more credits to Idaho State University.

Courses taken by the transfer student after enrolling at Idaho State University to meet the General Education Requirements for the B.A., B.S., and B.B.A. degrees as stated below must be selected from the unfulfilled goals in those groups.

Transfer Students Seeking a Bachelor’s Degree

Bachelor of Arts in the College of Arts and Sciences
Transfer students with 58 or more credits from other institutions who are seeking a B.A. degree in the College of Arts and Sciences must satisfy General Education Goals 1, 2, and 3. They may consider Goals 4 and 5 as a single eight hour natural/physical science requirement, and Goals 6, 7, and 8 as a single nine-hour humanities requirement, and must complete both Goals 10A and 10B and nine more credits in Goals 9, 11, and/or 12.

Bachelor of Arts in Colleges Other than Arts and Sciences, and Bachelor of Business Administration
Students transferring to Idaho State University with 58 or more credits from other institutions and working toward a B.A. degree in any College other than Arts and Sciences, or toward a B.B.A. degree, must satisfy General Education Goals 1, 2, and 3. They may consider Goals 4 and 5 as a single eight hour natural/physical science requirement, and Goals 6, 7, and 8 as a single nine-hour humanities requirement. Goals 9, 10A or 10B, 11, and 12 may be considered as a twelve-hour Social Science requirement. Those who opt to fulfill Goal 10B also must take nine credits from Goals 9, 11, and/or 12.
Bachelor of Science, Bachelor of Applied Science, and Bachelor of Applied Technology

Students transferring to Idaho State University with 58 or more credits from other institutions and working toward a B.S., B.A.S., or B.A.T degree must satisfy Goals 1, 2, and 3. In transferring, students may consider Goals 4 and 5 as a single eight-hour natural/physical science requirement and Goals 6, 7, and 8 as a single six-hour humanities requirement. Goals 9, 10 A-B, 11, and 12 may be considered as a nine-hour Social Science requirement. Students who opt to fulfill Goal 10B also must take six credits from 9, 11, and/or 12.

Transfer Students with Bachelor’s Degrees

Students with bachelor’s degrees from a regionally accredited institution will be considered to have met Idaho State University’s General Education Requirements when seeking a second bachelor’s degree. See Requirements for Second Degree section of this Catalog.

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 a 3 year period are required to re-apply and submit the following to the Office of Admissions:

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 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 processes 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 part-time (maximum 7 credits per semester) and complete a maximum of 32 undergraduate semester credit hours. Upon completion of 32 semester credit hours, the student must complete 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.

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 on a part-time (1-7 credits) basis. High schools 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.

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 Office of Admissions recognizes there are no such things as equivalents between curricula in any other country and the United States; thus foreign courses must be evaluated in terms of approximations.
Applications
All international student applications for admission must be received by March 1 for fall semester, and by November 1 for spring semester. The following additional items are needed:
1. Application Fee ($40, nonrefundable);
2. Official TOEFL Scores (minimum of 500 for the paper exam; 173 for the computer exam; or 61 IBT [internet based test]) or ACT English score of 18 or SAT Verbal score of 450 or ELS Level 112 pass;
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 Office of Admissions 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.

NOTE: It is critical that students submit necessary admission documents early so they may be cleared to preregister. Those submitting application materials late cannot be assured of registration for the current semester. An official transcript is one that is sent directly from the college/university to the Office of Admissions at Idaho State University.

Transfer of Credits
Students completing associate degrees (two year degrees) or three year baccalaureate degrees from other countries will be considered for undergraduate admission with possible advanced standing of up to two years (60 credits) or up to three years (90 credits). General Education Requirements will be waived for such students on a case by case basis. Specific course credits may be awarded only after they have been determined acceptable based on a course by course analysis after official transcripts and a syllabus have been submitted that describe the student’s courses and programs of study. Educational guides endorsed by AACRAO (American Association of Collegiate Registrars and Admissions Officers) are used during the transfer credit evaluation process, which takes place AFTER the student is enrolled at Idaho State University. Students who do not agree with the credits awarded may, at their own cost, send educational documents to an accredited foreign credentials evaluation service; additional credits might be awarded at Idaho State University. Students may also petition the academic departments for possible transfer credit consideration.

English Proficiency
Students from other countries are required to take and receive a satisfactory score (minimum of 500 for paper exam, 173 for computer exam or 61 for iBT) on the TOEFL (Test of English as a Foreign Language) or a score of 5 on the IELTS (International English Language Testing System) examination. An ACT English score of 18 or SAT Verbal score of 450 may also satisfy the English Proficiency requirement. Idaho State University will also accept Level 112 completed at any ELS program in place of a 500/550 TOEFL. Visit www.ets.org for more information. Conditional admission is possible.

Scores must be submitted to the Admissions Office early so that an admission decision can be made. If the student is transferring from another college or university in the United States, and if s/he has completed college level English courses in the United States, grades in these courses (or TOEFL test scores) will be considered to demonstrate proficiency in English. The TOEFL requirement may be waived for students who are from English speaking countries or who have previously attended secondary or postsecondary schools where English is the instructional language. Arrangements to take the TOEFL or IELTS examination may be made by accessing the following websites: www.ets.org or www.ielts.org. For more information on the ELS program at Idaho State University, visit www.els.edu.

Declaration of Financial Support
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.

Estimated Costs of Full-time Attendance at Idaho State University (International Students)

<table>
<thead>
<tr>
<th>Expenses</th>
<th>Academic or Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition and Fees*</td>
<td>$14,770.00</td>
</tr>
<tr>
<td>Books, Supplies, and</td>
<td>$900.00</td>
</tr>
<tr>
<td>Other Expenses*</td>
<td>$5,050.00</td>
</tr>
<tr>
<td>Room and Meals</td>
<td>$1,294.00</td>
</tr>
<tr>
<td>Insurance</td>
<td>$22,014.00</td>
</tr>
</tbody>
</table>

Note: Academic year includes Fall and Spring semesters only. Summer Semester costs are not included in the estimates. Costs are subject to change.
*Some academic and most College of Technology programs require additional tool or class costs. Students need to contact individual departments or programs for these costs.
**Costs tend to increase by 3-10% each fall semester. The exact costs are determined in June of each year.
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.

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 Office of Admissions 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).

Class Level
Sophomore: 26 credit hours
Junior: 58 credit hours
Senior: 90 credit hours
The classification under which a student registers at the beginning of the academic year will continue through the year.

Registration

Questions about academic regulations or registration should be directed to:
Office of Registration and Records
921 S 8th Ave Stop 8196
Pocatello ID 83209-8196
(208) 282-2661

New Students
You must apply for and be accepted for admission. Contact the Office of Enrollment Planning and Academic Services for referral to a registration advisor.

Transfer Students
You must apply for and be accepted for admission. After notification of admittance, you should make an appointment with your major advisor.

Former Students
If you are a student who has attended within the last three years, 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. Thus, you are encouraged to contact the Office of Admissions to indicate your intent to reenroll. Former students NOT enrolled for three years must reapply. Once accepted, make an appointment with your major advisor.

Continuing Students
Students who major within the College of Engineering, selected departments within the Kasiska College of Health Professions, and the College of Pharmacy must see their advisor before attempting to register.

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, unless otherwise stipulated by an Individualized Education Program (IEP). 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 summer semester).

To qualify for ASIST elective or appointive office, a student must enroll for at least 8 credit hours.

Please note: in order to graduate in four years, an undergraduate student must complete an average of 32 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 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/finserv/costinfo.shtml. College of Technology students should consult with the Student Services Office at (208) 282-2622.

Full-time (12 credit hours or more)
- Per Semester*
  - Resident $ 2,484.00 + insurance*
  - Nonresident $ 7,385.00 + insurance*

Part-time (1-11 credits)
- Resident $253.00 per credit hour
- Nonresident $393.00 per credit hour

*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) 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. The full-time student insurance premium is $647.00 per semester ($266/session). 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 198p, 298p, 398p, 498p and 598p 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 recording fee will be levied.

Application Fee

(Academic and College of Technology students)
- Undergraduate $40
- Graduate $55

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.

Clinical Laboratory Science
- Semester Fee $400

Credit Recording Fee
- Credit Recording Fee $15

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.

Dental Hygiene

Semester Fee, Junior/Senior $250

Experiential Credit

Evaluation Fee $50*
(*Per academic area evaluated; payable at Idaho State University Cashiers Office prior to evaluation process)

Credit Recording Fee $15*
(*Per credit hour and in addition to evaluation fee; payable after evaluation)

Faculty, Staff and Spouses

Registration Fee $20 + $5 per cr. hour

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 $5

Graduation/Diploma Fee $20

This fee is collected from each applicant for a certificate or for each associate, bachelor’s, master’s or doctorate 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 employee of the University, other than those specifically authorized, has the authority to waive the fee.

Military Style Physical Fitness Class Fee
A class fee of $20 is charged for civilian enrollment in MSL/PEAC 110, 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, $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.

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 $600

Pharmacy Professional Fee
Continuing Full-time Resident $1,104
Continuing Non-Resident $3,022

Nontraditional Pharmacy students should consult with the College of Pharmacy regarding fees.

Physical/Occupational Therapy Professional Fees (per semester)
Resident $762
Nonresident $2,620

Placement Testing Fee (Compass Tests)
$5 per examination

Radiographic Science
Semester Fee $350

Remediation Fees
Payment of remediation fees is required for pre-college courses, as follows:
Arithmetic/Pre-Algebra (MATH 015) $30
Elementary Algebra (MATH 025) $30
Basic Writing (ENGL 90) $30

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 $100

Student Health Insurance Fee
$135

VTE Competency Credit Fee (College of Technology)

Idaho Residency Requirements for Fee Payment
See the web address http://www.isu.edu/enroll/admissions/rinfo.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:
1. He/She 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. He/She 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. He/She is a graduate of an accredited secondary school in the state of Idaho and is enrolled in 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. He/She is the spouse of an Idaho resident or person who qualifies for Idaho residency; or
5. He/She (or his/her parent or guardian) is an active duty member of the United States armed forces (only the U.S. Army, Navy, Air Force or Marine Corps) stationed in Idaho on military orders and the student receives 50% or more financial support from parent or guardian; or
6. He/She is separated, under honorable conditions, from the United States armed forces (a certified copy of the DD-214 separation papers may be requested) 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; or
7. He/She 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 one (1) calendar year and has not established legal residence elsewhere provided a twelve (12) month period of continuous residency has been established immediately prior to departure is considered an Idaho resident for purposes of fee payment.

Direct specific questions to:

Idaho State University
Admissions Office
921 S 8th Ave Stop 8270
Pocatello, ID 83209-8270
(208)-282-4096

A “nonresident” student shall include:
Any student attending an institution in this state with the aid of financial assistance provided by another state or governmental unit or agency thereof, such nonresidency continuing for one (1) year after the completion of the semester for which such assistance is last provided.

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.

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. In determining whether a student is domiciled in the state of Idaho primarily for purposes other than educational Idaho State University shall consider, but shall not be limited to the following factors:

Registration and payment of Idaho taxes or fees on a motor vehicle, mobile home, travel trailer, or other item of personal property for which state registration and the payment of a state tax or fee is required.

Filing of Idaho state income tax returns.

Permanent full-time employment or the hourly equivalent thereof in the state of Idaho.

Registration to vote for state elected officials in Idaho at a general election.

Residency decisions for fee payment purposes are made by the Admissions Office. Students may appeal through the Residency Appeals Committee at Idaho State University.

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 (WCHE) Professional Student Exchange Programs (medicine, optometry and occupational therapy) and Graduate Education Program.

NOTE: STUDENTS WHO INITIALLY ENROLL AT IDAHO STATE UNIVERSITY AS NONRESIDENTS AND LATER WISH TO BE CONSIDERED FOR A CHANGE IN RESIDENCY STATUS MUST OBTAIN AN AFFIDAVIT FOR RESIDENCY APPLICATION FROM THE ADMISSIONS OFFICE. IT MUST BE COMPLETED, NOTARIZED AND SUBMITTED TO THE ADMISSIONS OFFICE ALONG WITH SUPPORTING DOCUMENTATION. IF APPROVED, THE STUDENT’S STATUS IS CHANGED IN THE COMPUTER AND THE STUDENT IS BILLED AS A RESIDENT.

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.

Non-Resident Tuition Waivers
Idaho State University Applications for Nonresident Tuition Waivers are available to students from:

Scholarship Office
Room 327, Museum Building
(208) 282-3315

A Nonresident Tuition Waiver Committee considers all applications and is responsible for awards. Students from the states of Utah and Washington, by indicating such residency status on the application form, have an opportunity to apply for nonresident tuition waivers at Idaho State University under reciprocal agreements with these states.

Time accrued while receiving a nonresident fee waiver will NOT contribute towards the length of time required for Idaho residency status.

Refund Policies
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 Kasiska College of Health Professions.

All fee refunds are paid by University check.

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:

Refunds are calculated and authorized by the Office of Financial Services. The drop/withdrawal date is the actual date the drop or withdrawal form is received by an authorized University office or automated system.

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.

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 week of classes: 100%*
During the second week of classes: 75%*
During the third and fourth weeks of classes: 50%*
After the fourth week of classes NO REFUNDS

*There is a $25 processing fee for ALL 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

*There is a $25 processing fee for ALL 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 contracts 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 ASIdaho State University Student Insurance Coordinator at (208) 282-2972 for Student Health Insurance refund provisions.

Refunds for Exceptional Circumstances
In specific cases, as listed below, a full refund of the registration fee, credit hour fee, 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 offices of Student Affairs and Financial Services 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
A check for the balance is mailed to the home address of the student with an itemized statement of deductions. Refund checks are not processed until four weeks after the start of the term or until at least three weeks after the actual date of payment for the term.

Registration Refund Appeals
Contact the Dean of Student Affairs or the University Controller for information on the University registration fee refund appeal process. Appeals should be submitted in writing before the end of the term for which the student is appealing.

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 Financial Services 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 $15 is assessed each time a check is returned; this amount is charged to the student’s account and/his/she is 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 here:

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

On-Campus Sources of Financial Assistance

Employment

Federal College Work Study
Financial Aid Office, Stop 8077
Room 337, Museum Building
(208) 282-2756

Off-campus (part-time or temporary)
Career Center, Stop 8108
Room 429, Museum Building
(208) 282-2778

On-campus (part-time)
Career Center / University Departments
Financial Aid Office / Student Union
(208) 282-2778

International Students (off-campus)
Director, International Programs, Stop 8038
Early Learning Center, 3rd Floor
(208) 282-4320

International Students (on-campus)
Various University offices

Graduate Assistantships, Fellowships
Academic Department Chairpersons / Graduate School, Stop 8075
Room 401, Museum
(208) 282-2150

Grants

Athletic Grants-in-Aid
Director of Athletics, Stop 8173
Holt Arena
(208) 282-2771

• Academic Competitiveness
• Federal Pell Grant
• Leveraging Educational Assistance Partnership (LEAP)
• Federal Supplemental Educational Opportunity Grants (SEOG)
• SMART
• TEACH Grant
Financial Aid Office, Stop 8077
Room 337, Museum Building
(208) 282-2756

Loans

• Federal Ford Direct Student Loans (subsidized and unsubsidized)
• Federal Perkins Loans
• Federal Ford Direct Parent Loans for Undergraduate Students

Short Term Loans
Financial Aid Office
Room 337, Museum Building
(208) 282-2756

Non-Resident Tuition Waivers

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

Academic Merit
Scholarship Office, Stop 8319
Room 327, Museum Building
(208) 282-3315

International Students
Director, International Programs and Services, Stop 8270
Museum Building, Room 326
(208) 282-2941

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

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

Utah & Washington Residents, and Western Undergraduate Exchange (WUE)
Scholarship Office, Stop 8319
Room 327, Museum Building
(208) 282-3315

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

Scholarships

Academic Students
Scholarship Office, Stop 8319
Room 327, Museum Building
(208) 282-3315

Academic Department Chairpersons

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

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

Related to Major Course of Study
• College/School Scholarship Committee
• Department Chair
• Scholarship Office, Stop 8077
Room 327, Museum Building
(208) 282-3315

College of Technology Students
College of Technology, Stop 8380
Student Services
RFC Building
(208) 282-2622
Service Awards

ASISU (Senate, Student Activities Board, Bengal)
ASISU Office
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
• Special Nonresident Waivers
• Leveraging Educational Assistance Partnership Grants
• Academic Competitiveness Grant
• Federal Supplemental Educational Opportunity Grants
• SMART Grant
• Federal Pell Grants
• Federal Ford Direct Student Loans
• Federal Ford Direct Parent Loans for Undergraduate Students

The application form used for financial aid programs through the Financial Aid Office is the Free Application for Federal Student Aid (FAFSA). The FAFSA will cover an application period for a given school year—fall, spring and summer semesters. Students are encouraged to file a FAFSA as soon as possible after January 1 for the subsequent school year and/or summer semester using copies of tax forms from the year most recently completed.

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 and also assists students in locating part-time jobs funded by the Federal Work Study Program.

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 a course of study leading to a degree or certificate; enrollment as a full-time (at least 12 credits per semester) three quarter time (9-11 credits per semester) student; 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.

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, the student newspaper, posted on the Scholarship Bulletin Boards located in the lobby of the Museum Building, and published to the ScholarshipOffice 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
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), to students who have demonstrated strong academic ability, and to residents of Washington and Utah through reciprocal agreements. Contact the Scholarship Office for a scholar-related nonresident tuition waiver or Washington/Utah reciprocity 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. 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.

Students are placed in general education courses on the basis of ACT scores and placement testing. Students in all colleges, including the College of Technology, take the College Board Computerized Placement Test for placement in English and mathematics courses. Depending on the results of placement testing in skill areas and foreign languages, general education comprises 37 to 61 of the 128 credit hours required for a baccalaureate degree.

Students pursuing a Bachelor of Arts or Bachelor of Fine Arts degree in the College of Arts and Sciences must complete all goals. Students pursuing the Bachelor of Music Education must complete all goals except 10B. Students pursuing the Bachelor of Business Administration, or the Bachelor of Arts in colleges other than Arts and Sciences, must complete Goals 1-9, 10A or 10B, and 11-12. Students pursuing the Bachelor of Science, the Bachelor of Applied Science, or the Bachelor of Applied Technology may substitute 12 hours in physical or biological sciences for Goals 4 and 5, and must complete only two of Goals 6, 7, and 8, and three of Goals 9, 10A or 10B, 11, and 12. Students pursuing the Bachelor of Music degree are required to take six credits of English composition, eight credits of a foreign language, twelve credits in the social sciences, eight credits in the natural sciences, and four credits other than music and foreign languages in the humanities. The General Education Requirements for students admitted to the Bachelor of University Studies degree are individualized, although most students in that program take courses that would meet most goals.

Some goals can be met only by a specified course or sequence of courses. Others allow a small range of choices that accommodate the needs of students with different prospective majors. To meet the quantitative competence goal, for example, students may elect one of six mathematics courses.

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

Broad Knowledge in the Liberal Arts:
Through completing the General Education Program students will be able to recognize, understand, explain, and use fundamental areas of knowledge in each of the broad disciplinary divisions of the humanities and fine arts, natural sciences, mathematics, and social sciences as a basis for more specialized intellectual inquiry. This broad knowledge includes the following: foundational theoretical terms and concepts; historical influences of individuals and theories; disciplinary theories and their application; methodologies, professional ethics, and tools; and inter-relationships among disciplines.

The university expects that, in addition to acquiring skills, abilities, and broad knowledge from the general education program, students will continue to develop these skills and abilities and deepen their knowledge within all degree programs.

Idaho State University’s General Education program is the foundation for degrees in the arts and sciences, business, education, engineering, health professions, pharmacy, and a Bachelor of Applied Science or Bachelor of Applied Technology (BAS/BAT) that combines an Applied Technology program with a foundation in general education and a supporting field. As a common foundation, general education is jointly owned by all the colleges even though almost all the courses that fulfill the requirements are taught in the College of Arts and Sciences.

The General Education requirements are organized into twelve goals: three in the skills areas of writing, speaking, and mathematics, and nine in content areas.
General Education Requirements: The Twelve Goals

Goal 1:
To express ideas in clear, logical, and grammatically correct written English.

Criteria for courses: Courses in expository writing fulfill this requirement. The skills learned in these courses are those that are readily adaptable to any situation in which one must communicate in writing. Writing courses designed to meet the special needs of one discipline do not fulfill this requirement.

Credits required: Variable, depending on whether the student is placed in ENGL 90 (noncredit), ENGL 101, or ENGL 102 (see Placement Protocols section, following the Goals section). Goal 1 is satisfied when the student has passed ENGL 102 with a grade of “C-” or better.

Goal 2:
To express ideas clearly, correctly, logically, and persuasively in spoken English.

Criteria for courses: Courses fulfilling this requirement are those in which students develop skills appropriate to formal and informal, public and private oral discourse. Students study and practice the principles of interpersonal communication, small group dynamics, expository speaking, argumentation, and persuasion. Courses designed to meet the special needs of one discipline do not fulfill this requirement.

Credits required: 3 or satisfactory completion of a proficiency examination administered by the Department of Communication and Rhetorical Studies.

One course satisfies the goal:
COMM 101 Principles of Speech 3 cr

Goal 3:
To gain an understanding of mathematics as a language in which to express, define, and answer questions about the world.

Criteria for courses: Courses fulfilling the requirement (1) require a basic high school algebra background as defined by the prerequisite listed for each course below, and (2) acquaint the student with a significant body of mathematical language, models, and methods.

A score of 3 or above on the College Entrance Examination Board’s Advanced Placement exam in Calculus AB, Calculus BC, or Statistics will also satisfy this goal.

Credits required: 3-4 credits

Courses satisfying the goal:
MATH 123 Mathematics in Modern Society 3 cr
(Prerequisite MATH 925)
MATH 127 The Language of Mathematics 3 cr
(Prerequisite MATH 925)
MATH 130 Finite Mathematics 3 cr
(Prerequisite MATH 108)
MATH 160 Applied Calculus 3 cr
(Prerequisite MATH 143)
MATH 170 Calculus I 4 cr
(Prerequisite MATH 147 or 143 & 144)
MATH 253 Introduction to Statistics 3 cr
(Prerequisite MATH 108)
ELSY 372 Calculus for Advanced Electronics 3 cr
(Prerequisite ELSY 262)

For further information about mathematics prerequisites and placement, see Placement Mathematics, which follows these goal descriptions.

Goal 4:
To understand how the biological sciences explain the natural world.

Criteria for courses: Courses in the biological sciences that fulfill this requirement (1) examine the processes by which scientific knowledge is gained, (2) introduce the basic concepts and terminology of the biological sciences, and (3) explore how scientific knowledge influences human society.

A score of 3 or above on the College Entrance Examination Board’s Advanced Placement exam in Biology will also satisfy this goal.

Credits required: 4 credits

Courses satisfying the goal
BIOL 100,100L Concepts Biology: Human Concerns, and Lab 4 cr
This course is designed for non-science, non-health related majors.

Goal 5:
To understand how the physical sciences explain the natural world.

Criteria for courses: Courses in the physical sciences that fulfill this requirement (1) examine the processes by which scientific knowledge is gained, (2) introduce the basic concepts and terminology of one or more of the physical sciences, and (3) explore how scientific knowledge influences human society.

A score of 4 or 5 on the College Entrance Examination Board’s Advanced Placement exam in Chemistry will also satisfy this goal.

Credits required: 4 credits

Courses satisfying the goal
CHEM 100,100L Architecture of Matter 4 cr
GEOL 100,100L The Dynamic Earth, and Lab 4 cr
GEOL 101 and either GEOL 101L or GEOL 110L
Physical Geology plus either
Physical Geology Laboratory OR
Physical Geology for Scientists Laboratory 4 cr

Another means to satisfy this goal is to take one sequence from the following:
CHEM 101 Introduction to General Chemistry 3 cr
CHEM 102 Introduction to Organic and Biochemistry 3 cr
CHEM 103 Introduction to General, Organic and Biochemistry Lab 1 cr
CHEM 101 and 112 7 cr
CHEM 111, 111L, and CHEM 112, 112L General Chemistry I and II, and Labs 9 cr
CHEM 111, 102 AND 103 7 cr
PHYS 111, 112, 113, 114 General Physics I and II plus Labs 8 cr
PHYS 211, 212, 213, 214 Engineering Physics I and II plus Labs 10 cr
PHYS 111/112 and 213/214 8 cr
PHYS 211/212 and 113/114 10 cr
*GEOL 110 is the lab for students in geology majors.
**This option is open only to students in the Civil Engineering Technology and Geomatics Technology programs in the College of Technology.
Goal 6:
To understand the creative processes, the aesthetic principles and the historical traditions of one or more of the fine arts.

Criteria for courses: Courses in the fine arts disciplines that fulfill this requirement (1) demonstrate the creative processes and the aesthetic principles artists employ, (2) demonstrate how art both reflects and shapes human and artistic values, (3) introduce students to the work of major artists. Performing and studio courses do not fulfill this requirement.

A score of 4 or 5 on the College Entrance Examination Board’s Advanced Placement exam in either Art History or Music History and Literature will also satisfy this goal.

Credits required: 3 credits
Courses satisfying the goal
(choose one):
MUSC 106 American Music 3 cr
ART/M C 210 History and Appreciation of Photography 3 cr
ART 100 Survey of Art 3 cr
ART 101 History of Western Art I 3 cr
ART 102 History of Western Art II 3 cr
DANC 105 Survey of Dance 3 cr
DANC 205 Dance in the Modern Era 3 cr
ENGL 126 Art of Film 3 cr
MUSC 100 Introduction to Music 3 cr
MUSC 108 The World of Music 4 cr
THEA 101 Appreciation of Drama 3 cr

Goal 7:
To understand how major works of literature explore the human condition and examine human values.

Criteria for courses: Courses fulfilling this requirement (1) emphasize major writers and major genres, (2) emphasize how literary artists contribute to understanding the human condition. Courses devoted to the study of a single literary figure, a single genre, or a single national literature do not fulfill this requirement.

A score of 4 or 5 on the College Entrance Examination Board’s Advanced Placement exam in English Literature and Composition will also satisfy this goal.

Credits required: 3 credits
Courses satisfying the goal
(choose one):
ENGL 100 Introduction to Literature 3 cr
ENGL 115 Major Themes in Literature 3 cr
ENGL 257 Survey World Literature I 3 cr
ENGL 258 Survey World Literature II 3 cr

Goal 8:
To understand how major philosophies influence human thought and behavior.

Criteria for courses: Courses fulfilling this requirement (1) examine a broad range of topics leading to or issuing from major philosophical questions, (2) emphasize the works of major philosophers.

Credits required: 3 credits
Courses satisfying the goal:
PHIL 101 Introduction to Philosophy 3 cr
PHIL 103 Introduction to Ethics 3 cr

Goal 9:
To understand the history and culture of the United States.

Criteria for courses: Courses fulfilling this requirement stress the interaction of ideas, events, and environment which have been significant in molding the nation’s culture and history through time. Courses which consider one or two narrow aspects of American history or culture do not fulfill this requirement.

A score of 3 or above on the College Entrance Examination Board’s Advanced Placement exam in U.S. History will also satisfy this goal.

Credits required: 3 credits
Courses satisfying the goal
(choose one):
HIST 111 U.S. History I (to 1865) 3 cr
HIST 112 U.S. History II (to present) 3 cr
HIST 118 U.S. History and Culture 3 cr
AMST 200 Introduction to American Studies 3 cr

Goal 10A:
To understand cultures other than that of the United States.

Criteria for courses: Courses fulfilling this requirement (1) concern themselves with one or more significant contemporary or past cultures other than that of the United States, (2) are broad studies of that culture, and (3) integrate intellectual, cultural, and historical developments of the culture. Studies of one aspect of a foreign culture do not fulfill this requirement.

A score of 3 or above on the College Entrance Examination Board’s Advanced Placement exam in European History, World History, or World Geography will also satisfy this goal.

Credits required: 3 credits
Courses satisfying the goal
(choose one language):*
ANTH/SHOS 101-102 Elementary Shoshoni 8 cr
ARBC 101-102 Elementary Arabic 8 cr
CHIN 101-102 Elementary Chinese 8 cr
FREN 101-102 Elementary French 8 cr
GERM 101-102 Elementary German 8 cr
JAPN 101-102 Elementary Japanese 8 cr
LATN 101-102 Elementary Latin 8 cr
RUSS 101-102 Elementary Russian 8 cr
SPAN 101-102 Elementary Spanish 8 cr
ANTH/SHOS 201-202 Intermediate Shoshoni 8 cr
ARBC 201-202 Intermediate Arabic 8 cr
CHIN 201-202 Intermediate Chinese 8 cr
FREN 201-202 Intermediate French 8 cr
GERM 201-202 Intermediate German 8 cr
JAPN 201-202 Intermediate Japanese 8 cr
LATN 201-202 Intermediate Latin 8 cr
RUSS 201-202 Intermediate Russian 8 cr
SPAN 201-202 Intermediate Spanish 8 cr

* A placement test is required for French, German, and Spanish 100-level courses.

Goal 10B:
To develop communication skills in a foreign language and an understanding of its cultural context.

Criteria for courses: Courses fulfilling this requirement are those that (1) stress spoken and written communication in a single foreign language; (2) examine the language’s grammatical structure in comparison with English; (3) treat the foreign language as a significant aspect of civilization; and (4) foster an appreciation for the cultural heritage of people from a different ethnic environment.

Credits required: 8 credits in a single language. Nonnative speakers of English, i.e. students who grew up in a non-English speaking country and learned English as their second language fulfill Goal 10B by passing ENGL 101 and 102.

A score of 4 or 5 on the College Entrance Examination Board’s Advanced Placement exam in a foreign language will also satisfy this goal.

Courses satisfying the goal
(choose one language):*
ANTH/SHOS 101-102 Elementary Shoshoni 8 cr
ARBC 101-102 Elementary Arabic 8 cr
CHIN 101-102 Elementary Chinese 8 cr
FREN 101-102 Elementary French 8 cr
GERM 101-102 Elementary German 8 cr
JAPN 101-102 Elementary Japanese 8 cr
LATN 101-102 Elementary Latin 8 cr
RUSS 101-102 Elementary Russian 8 cr
SPAN 101-102 Elementary Spanish 8 cr
ANTH/SHOS 201-202 Intermediate Shoshoni 8 cr
ARBC 201-202 Intermediate Arabic 8 cr
CHIN 201-202 Intermediate Chinese 8 cr
FREN 201-202 Intermediate French 8 cr
GERM 201-202 Intermediate German 8 cr
JAPN 201-202 Intermediate Japanese 8 cr
LATN 201-202 Intermediate Latin 8 cr
RUSS 201-202 Intermediate Russian 8 cr
SPAN 201-202 Intermediate Spanish 8 cr

* A placement test is required for French, German, and Spanish 100-level courses.
Goal 11:
To understand how political and/or economic organizations, structures, and institutions function and influence human thought and behavior.

Criteria for courses: Courses in government and/or economics that fulfill this requirement (1) examine significant economic or political institutions; and (2) demonstrate the function and processes of those institutions through methods of these social sciences.

Courses which focus on narrow aspects of the economic or political systems or which are of a current, topical nature do not fulfill this requirement.

A score of 3 or above on the College Entrance Examination Board’s Advanced Placement exam in Political Science, or a score of 4 or 5 on the exam in Macroeconomics or Microeconomics, will also satisfy this goal.

Credits required: 3 credits

Courses satisfying the goal (choose one):
- ECON 100 Economic Issues 3 cr
- ECON 201 Principles of Macroeconomics 3 cr
- ECON 202 Principles of Microeconomics 3 cr
- POLS 101 Introduction to American Government 3 cr

Goal 12:
To understand how people function within society.

Criteria for courses: Courses in sociology, psychology, and/or anthropology that fulfill this requirement (1) emphasize individual or group behavior, and (2) demonstrate central analytical approaches used in these social sciences. Courses which focus on narrow aspects of sociology, psychology, or anthropology or which are of a current topical nature do not fulfill this requirement.

A score of 4 or 5 on the College Entrance Examination Board’s Advanced Placement exam in Psychology will also satisfy this goal.

Credits required: 3 credits

Courses satisfying the goal (choose one):
- ANTH 100 General Anthropology 3 cr
- PSYC 101 Introduction to General Psychology 3 cr
- SOC 101 Introduction to Sociology 3 cr
- SOC 102 Social Problems 3 cr

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.

Other Means of Satisfying General Education Requirements

Goals 1 and 2 must be satisfied as stated above. Goals 4-12 may be satisfied by six hours in the appropriate field for the goal if the courses are compatible with the goal (determined by the department). A course may not satisfy two goals.

Departments have identified the following courses as other means of satisfying General Education Requirements:

Goal 3: A score of 3 or above on the College Entrance Examination Board’s Advanced Placement exam in Calculus AB, Calculus BC, or Statistics will also satisfy this goal. For Elementary Education majors ONLY, Goal 3 may be satisfied by taking both MATH 256 and MATH 257.

Goal 4: A score of 3 or above on the College Entrance Examination Board’s Advanced Placement exam in Biology will also satisfy this goal.

Goal 5:
Choose one combination:
- CHEM 101, 102, and 103 7 cr
- CHEM 111, 111L, and CHEM 112, 112L 9 cr
- CHEM 111, 102 and 103 9 cr
- CHEM 101 and 112 7 cr
- PHYS 101, 101L* 4 cr
- PHYS 111, 112, 113, 114 8 cr
- PHYS 211, 212, 313, 214 10 cr
- PHYS 111 and 112 with labs 214 and 214 8 cr
- PHYS 211 and 212 with labs 113 and 114 10 cr

*This option is available only to students in the Civil Engineering Technology and Geomatics Technology programs in the College of Technology.

A score of 4 or 5 on the College Entrance Examination Board’s Advanced Placement exam in Chemistry will also satisfy this goal.

Goal 6: A score of 4 or 5 on the College Entrance Examination Board’s Advanced Placement exam in either Art or Music History and Literature will also satisfy this goal.

Goals 6 and 7 together are satisfied when both the following courses have been completed, and Goal 1 is also satisfied if both courses are completed with a grade of C- or better:
- HONS 101-102 Honors Humanities I and II 6 cr

Goal 7: Choose two:
- ENGL 211, 267, 268, 277, 278, 321.

A score of 4 or 5 on the College Entrance Examination Board’s Advanced Placement exam in English Literature and Composition will also satisfy this goal.

Goal 8: Choose two:

Goal 9: Choose two:
- ANTH/HIST 258, HIST 307, 308, 309, SOC 450

A score of 3 or better on the College Entrance Examination Board’s Advanced Placement exam in U.S. History will also satisfy this goal.

Goal 10A: Choose two:
- HIST 221, 223, 326, 443, 444, 446, 448, 460, 474

A score of 3 or above on the College Entrance Examination Board’s Advanced Placement exam in European History, World History, or World Geography will also satisfy this goal.

Goal 10B: A score of 4 or 5 on the College Entrance Examination Board’s Advanced Placement exam in a foreign language will also satisfy this goal.

Goal 11: Choose two:
- POLS g401, g403, g404.

A score of 3 or above on the College Entrance Examination Board’s Advanced Placement exam in Political Science, or a score of 4 or 5 on the exam in Macroeconomics or Microeconomics, will also satisfy this goal.

Goal 12: A score of 4 or 5 on the College Entrance Examination Board’s Advanced Placement exam in Psychology will also satisfy this goal.

Goal Course Learning Outcomes

This section details specific learning outcomes for each of the goal courses described in the preceding overview of the General Education Requirements. These
learning outcomes were articulated by the academic departments in the College of Arts and Sciences as part of the ongoing review of the general education program at Idaho State University. These review efforts underscore the College of Arts and Sciences commitment to a sound general education as the foundation for effective learning throughout students’ educational programs.

The learning outcomes listed below represent the specific expectations for student learning developed by each academic department for its goal course(s). Though there is considerable overlap between many of the stated outcomes, the various outcomes are specific to each course and to the academic discipline in which it is based. This specificity serves two primary purposes. One purpose is to make assessment of what is learned in the courses by the students more accurate and effective; however the most important purpose is to answer the question “What, exactly, will students get from this course; why should they take it?” These goal course learning outcomes, then, represent information vital to informing sound decisions as students plan their educational programs.

Goal 1 Learning Outcomes
— ENGL 102
Stated Goal: To express ideas clearly, logically, and grammatically correct written English.

(The skills learned in these courses are those that are readily adaptable to any situation in which one must communicate in writing.)

Student Learning Outcomes
Students will:
1. Read academic texts critically, analyzing and interpreting prose written from a variety of disciplinary, ideological, and rhetorical perspectives.
2. Use appropriate research methods to gather, evaluate, analyze, and synthesize material from both primary and secondary sources, with special consideration of points of view and representations of academic discourse communities.
3. Demonstrate conscious control of practicing writing as a process aimed at developing abilities to write argumentative/persuasive prose for a variety of academic purposes and audiences. To this end, students will produce at least 5,000 words of edited prose demonstrating the ability to:
   a. support theses developed from thorough consideration of multiple perspectives on significant issues.
   b. use a variety of rhetorical strategies for a range of audiences and purposes, chiefly for persuasion and argument.
   c. control conventions of written English for academic purposes, including summary, paraphrase, and appropriate documentation style(s).
   d. proofread and edit writing to conform to accepted standards for academic writing in English.

Goal 2 Learning Outcomes
— COMM 101
Stated Goal: To express ideas clearly, correctly, logically, and persuasively in spoken English. (The course satisfying this goal ensures that students develop skills appropriate to formal and informal, public and private oral discourse.)

Student Learning Outcomes
Students will:
1. Study, prepare, and present spoken exercises in interpersonal communication, group communication, informative speaking, argumentation, and persuasion.
2. Utilize appropriate research methods such as library research, web research, and interviewing to gather information and evidence for their presentations.
3. Select from their research important ideas and arguments. Students then structure their ideas and arguments according to appropriate informational, argumentative, and persuasive formats.
4. Present three spoken exercises to the class using extemporaneous (not read or memorized) delivery.
5. Demonstrate basic rhetorical principles in preparing and presenting their spoken exercises including: sound research, logical structure, appropriate and correct language, careful audience adaptation, logical argument, appropriate emotional appeal, and careful credibility development.

Goal 3 Learning Outcomes
— MATH 123, 127, 130, 160, 170, and 253
Stated Goal: To gain an understanding of mathematics as a language in which to express, define, and answer questions about the world.

Student Learning Outcomes
In MATH 123, Mathematics in Modern Society, students will investigate fields of current interest in which mathematical reasoning is connected with and applied toward modern problems involving social choice and decision-making. Topics will be selected from such areas as voting and apportionment, fair division of property, networking, scheduling, population growth and decline, and the interpretation of graphical and statistical information.

Students will:
1. Read descriptions of the topics to be investigated and evaluate the importance of each in current society and in the marketplace;
2. Integrate verbal and quantitative aspects of the problems under consideration;
3. Study historical accounts of proposed solutions and algorithms;
4. Solve numerous examples of each problem, so as to appreciate the strengths and weaknesses of the various available procedures;
5. Learn to communicate their solutions orally and in writing.

In MATH 127, The Language of Mathematics, students will study the precise language used throughout mathematics.

Students will:
1. Read mathematical passages;
2. Study the necessity of appropriate notation in mathematical exposition;
3. Practice precise exposition of quantitative, logical, and spatial concepts;
4. Recognize and avoid pitfalls of inaccurate speech and writing;
5. Transfer mathematical precision to their analysis of other forms of prose;
6. Learn the basics about such concepts of mathematics as set, function, relation, and identity; become more proficient with proofs.

In MATH 130, Finite Mathematics, students will study problems similar to those which calculus handles successfully for continuous models. Finite mathematics provides an alternative approach to such applications when the underlying model is either not necessarily continuous or when the methods and concepts of calculus are not needed or not feasible.
Students will:

1. Study the concept, the notation, and the manipulations of matrices;
2. Use matrices as a convenient data structure for systems of linear equations and inequalities, applying them also to such problems as network analysis and optimization;
3. Study the computation and the application of probability and its consequences as a valuable tool for decision-making under uncertainty;
4. Develop and apply models that link matrix theory and probability (for example, Markov chains);
5. Solve numerous problems from the topics above and explore possible extensions and connections to such areas as elementary statistics, game theory, or the mathematics of finance.

In MATH 160, Applied Calculus, students will study the central concepts of differential and integral calculus at the introductory level. Connections will be made between these concepts and their application toward problems in the life sciences, the social sciences, and business.

Students will:

1. Investigate the concepts of calculus via accurate interpretation, manipulation, and application of the symbols of calculus;
2. Investigate the concepts of calculus via the examination of numerical measurement and data;
3. Investigate the concepts of calculus from a graphical perspective;
4. Investigate the concepts of calculus using insights gained from applications and successful mathematical models;
5. Solve numerous problems that illustrate the mutually reinforcing nature of the above-mentioned symbolic, numerical, graphical, and applied approaches to studying calculus.

MATH 170 Calculus I students will begin in this course an in-depth study of the central concepts of differential and integral calculus. Connections will be made between these concepts and their application toward problems arising primarily in the natural sciences and in engineering.

Students will:

1. Be able to evaluate various limits and to appreciate the concept of limit as the portal from background mathematics (algebra, geometry, trigonometry) into calculus;
2. Master the definition of derivative (both as a rate of change and as a slope), study its properties, compute and manipulate derivatives without dependence on symbolic software, and apply derivatives to the solution of actual problems arising in science;
3. Master the construction of the definite integral of a continuous function so as to recognize applications of integration when they arise, and practice the evaluation of indefinite integrals;
4. Study indefinite integrals and the Fundamental Theorem of Calculus, and solve numerous problems that apply it to natural sciences and geometry.

In MATH 253, Introduction to Statistics, students will be introduced to descriptive and inferential statistics. In a modern world which often suffers from both too much and too little data, students will participate in intelligently applying the concepts of this course to a variety of disciplines.

Students will:

1. Interpret and produce descriptive statistics, both graphical and numerical;
2. Study some of the foundational concepts of statistical inference, including the role of the normal distribution and other distributions;
3. Solve numerous problems in inferential statistics from a wide collection of real-world and academic environments, with emphasis on testing hypotheses and estimating parameters;
4. Determine the assumptions that underlie and explain past and present use and abuse of statistical reasoning;
5. Practice using tables and/or calculators and/or software as time-and labor-saving devices, but only to the extent that these devices enhance understanding of the concepts and procedures of statistics.

Goal 4 Learning Outcomes — BIOL 100, 100L, 101, 101L

Stated Goal: To understand how the biological sciences explain the natural world. (These courses examine the processes by which scientific knowledge is gained, introduce the basic concepts and terminology of the biological sciences, and explore how scientific knowledge influences human society.)

Student Learning Outcomes

Students will:

1. Design an experiment, based on a reasonable scientific hypothesis, to demonstrate how an environmental factor affects a living organism.
2. Choose two biological concepts from the following list and explain how they are related: ecology, cell function, evolution, genetics.
3. Provide two examples that show why it is important in everyday life for an educated person to understand biology.
4. Pick a single concept in biology and explain its historical development.
5. Discuss the biological evidence for one of the following biological concepts: biological evolution, DNA as the genetic material, independent assortment of chromosomes, competitive exclusion.
6. Develop their written arguments using clear and concise prose.

Goal 5 Learning Outcomes — GEOL 100, 100L; 101, 101L, 110L; 115, 115L; CHEM 100, 101, 102, 111, 112; PHYS 100; 101, 101L; 152, 153

Stated Goal: To understand how the physical sciences explain the natural world. These courses examine the processes by which scientific knowledge is gained, introduce the basic concepts and terminology of one or more of the physical sciences, and explore how scientific knowledge influences human society.

Student Learning Outcomes

CHEM 100, 101, 102, 111, and 112

Students will:

1. Demonstrate knowledge of basic chemical processes and terminology.
2. Demonstrate awareness of how chemistry is a part of their everyday lives.
3. Understand the nature of scientific knowledge as compared to other forms of knowledge and be able to distinguish what is scientific knowledge from what is not.
4. Demonstrate their understanding of how the process of science works.

5. Demonstrate developing confidence in learning chemistry (and science in general).

6. Demonstrate the development of a positive attitude toward chemistry.

GEOL 100, 100L, 101, 101L, 110L, 115, 115L

Students will:

1. Describe the scientific method and provide an example of its application.

2. Pick a single theory from the science represented by this course and explain its historical development.

3. Provide two examples of testable hypotheses.

4. Provide two specific examples that illustrate why it is important to the everyday life of an educated person to be able to understand science.

5. Describe two current examples of the relationship between physical science and public policy.

6. Describe an example of how the Earth’s internal heat drives physical processes we can observe at the Earth’s surface.

7. Describe an example of how solar energy drives physical processes we can observe at the Earth’s surface.

8. Describe the relationship between geologic processes and natural resources used by human society.

9. Outline our understanding of geologic time and discuss how this course opened their minds to the notion of a four-dimensional science.

PHYS 100, 101, 101L, 152, 153

Students will:

1. Improve their conceptual understanding of physical laws.

2. Develop problem-solving skills, and the ability to apply fundamental principles to quantitatively describe and predict physical behavior.

3. Critically evaluate scientific and technical information and communicate their understanding.

4. (152/153) improve their conceptual knowledge of Earth, our solar system, our place in the universe, where we came from, and where we are going.

5. (152/153) develop a useful set of problem-solving skills that will enable them to make predictions based on scientific data. Students will develop understanding of the scientific method and its usefulness in understanding how the universe works.

6. (152/153) demonstrate the ability to critically assess scientific and technical information and to communicate in a persuasive manner ideas based on such assessments.

**Goal 6 Learning Outcomes**

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**DANC 200 and 201; MUSC 100, 106, 108; ART/M C 210; THEA 101**

**Stated Goal:** To understand the creative processes, the aesthetic principles, and the historical traditions of one or more of the fine arts. (All of these courses emphasize understanding the creative processes and the aesthetic principles which artists employ, how art both reflects and shapes human and artistic values, and an introduction to the works of major artists.)

**Student Learning Outcomes**

**DANC courses**

Students will:

1. gain knowledge of various dance forms from around the world;

2. gain an understanding of dance as an art form, a form of education, a repository of cultural knowledge, and a form of physical development with therapeutic attributes;

3. view as well as embody dance experiences in the studio setting;

4. comprehend dance in relation to historical events and cultures;

5. gain perspective on dance criticism with respect to aesthetics and representation.

**MUSC 100 students will focus on the history of Western music from the Medieval period through the 21st century.**

**Students will:**

1. Encounter music through lectures, listening examples, videos, and live concert attendance.

2. Learn the basic elements of music.

3. Use their learned music vocabulary to hear music from different musical eras.

4. Use their learned music vocabulary to describe music (in speech and writing) from different musical eras.

**MUSC 106 students will gain an appreciation and awareness of American folk, pop, and art music in the United States. The history of both sacred and secular music is traced from the indigenous (American Indian) and European cultures**

**Students will:**

1. Encounter American music through reading, lectures, listening examples, videos, and live concert attendance.

2. Gain an appreciation of the range of musical genres and styles found in American music.

3. Students will aurally identify the range of musical genres and styles found in American music.

4. Articulate (in speech and writing) their understanding of the range of musical genres and styles found in American music, as well as the musical elements which constitute those genres and styles.

**MUSC 108 students will survey both the history of Western and non-Western music. The course is a chronological journey through the musical eras which emphasizes awareness of music from around the world.**

**Students will:**

1. Be introduced to world music through reading, lectures, listening examples, videos, and live concert attendance.

2. Understand the elements of music shared throughout the world.

3. Be able to define the history of traditional and ethnic music.

4. Articulate (in speech and writing) their understanding of the range of musical elements which constitute music around the world.

**ART/M C 210**

**Students will:**

1. Study photographs which are significant to the evolution of this medium and gain appreciation for their aesthetic and communicative importance. The conceptual basis for the images is stressed.

2. Gain a knowledge of the Idaho State University history from the early industrial revolution which spawned photography to images of present day society and their importance in the shaping of western culture and the photographic aesthetic.
3. Learn the social, cultural, political and major aesthetic influences on photography which were instrumental in the creation of the major styles and uses of photographs.

The progress of the students in this course is measured using the following instruments:

A. Midterm exam. This exam is comprised of objective and essay questions which test both specific information and overall understanding of the evolution of photography throughout the 19th century.

B. Research paper. The paper demonstrates the students’ ability to write intelligently on a specific nontechnical topic in photography. They are required to discuss an artist’s work and how it contributed to the overall body of photographic knowledge.

C. Final exam. This exam is comprised of objective and essay questions which test both specific information and overall understanding of the evolution of photography and the impact of new technologies on 20th century image making.

Please note that as information on the historical importance of 21st century photography becomes available, it will be included in this course.

THEA 010 students will understand theatre as a highly collaborative art. A theatrical performance represents a host of choices made by the playwright, the director, the designers, the actors, and the running crew. In coming to understand these choices, THEA 101 students will gain an appreciation for all aspects of the art of theatre, and learn to be perceptive and knowledgeable audience members.

Students will:

1. Tour our performance, shop and back-stage areas as possible, and will study theatre architecture, including types of stages (proscenium, thrust, arena, black box) and considerations in theatre design.

2. Be exposed to the basic considerations of theatrical design, including stage design/construction, costume design/ construction, lighting, makeup, and sound design.

3. Be exposed to elements of acting and directing. Where possible, they will meet directors and actors involved with Theatre Idaho State University productions.

4. Attend several performances and respond to them both verbally and through written assignments.

5. Read and discuss a number of plays from a variety of time periods, generally including Greek/Roman, Elizabethan, early Realism, and contemporary.

6. Gain a general sense of the history of Western theatre.

7. Participate in group projects which will acquaint them with specific aspects of theatrical production.

Goal 7 Learning Outcomes
— English 110, 115, 257, 258

Stated Goal: To understand how major works of literature explore the human condition and examine human values. (All four of the Goal 7 courses emphasize both major writers and major genres, as well as how literary artists contribute to understanding the human condition.)

Student Learning Outcomes

Students will:

1. Demonstrate an understanding of how literary artists contribute to understanding the larger human condition, including an understanding of the nature of “literature,” i.e. those texts worth critical study in a college classroom.

2. Demonstrate an understanding of the intellectual demands necessary to reading literature critically. Students will demonstrate this understanding by:
   a. identifying the characteristics inherent in literature, such as emotional, intellectual, and aesthetic designs, as well as dramatic meditations on problems of the human condition.
   b. relating the characteristics of literature to larger cultural and human values.
   c. articulating how individual works of literature are representative, even critical, of the cultures and historical periods in which they are written and read.
   d. identifying traditional genres and subgenres of literature — poetry, prose fiction, drama, prose nonfiction — and the mental activities required to engage a literary text.
   e. articulating an understanding of the range of ways to define text/reader and writer/reader relationships.

3. Write at least 2500 words of edited prose demonstrating:
   a. the ability to analyze the constituent parts of a variety of literary texts and the ability to articulate the relationship between the construction of a text and the ability of a text to make significant comment concerning the human condition.
   b. the ability to analyze the historical contexts in which literary texts occur and the ability to articulate the relationship between the human condition explored in literary texts and the historical and cultural contexts from which it was written.

Goal 8 Learning Outcomes
— PHIL 101, 103

Stated Goal: To understand how major philosophies influence human thought and behavior.

Student Learning Outcomes

Students will:

1. Become acquainted with important philosophical issues.

2. Demonstrate an understanding of the positions and arguments of the major philosophers on these issues.

3. Read philosophical texts critically.

4. Recognize the major arguments for and against philosophical positions.

Goal 9 Learning Outcomes
— AMST 200; HIST 111, 112, 118

Stated Goal: To understand the history and culture of the United States. (These three courses stress the interaction of ideas, events, and environment which have been significant in molding the nation’s culture and history through time.)

Student Learning Outcomes

Students will:

1. Demonstrate an understanding of the concept of culture and the ability to apply the concept to various American cultures.

2. Demonstrate an understanding of the concept of cultural change over time.

3. Demonstrate an ability to construct and support effective arguments using historical and cultural perspectives.
Goal 10A Learning Outcomes — ANTH 237, 238, 239; HIST 101, 102, 251, 252, 254, 255

Stated Goal: To understand cultures other than that of the United States (These courses emphasize an integrated understanding of intellectual, cultural, and historical developments in cultures other than that of the U.S.)

Student Learning Outcomes
ANTH 237, 238, and 239 courses recognize that we live in a multicultural and dangerous world in which it is important that Americans understand, and can interact with, people from other cultures. Americans should comprehend not only the cultural experiences of others, but be able to use this improved understanding to reflect on their own cultural experiences. The objective of these courses is to provide a semester-long in-depth introduction to the values, behaviors, history, and intellectual achievements of a cultural system other than their own. Through this multicultural learning experience, students gain a better appreciation of cultural diversity within a global economy and politics. Students who successfully complete this course will be able to better evaluate and understand their own values in a broader multicultural context and to better appreciate the different values of others.

Students will:
1. Read about and visit Idaho State University study (via various audio-visual State University) means) another culture (or cultures within a specific culture area) including, but not limited to, its history, intellectual achievements, religious beliefs, economic systems, social organizations, technologies, and interactions with the natural and social environment in which they are embedded.
2. Critically assess their own culture and values through specific cross-cultural comparisons.
3. Describe how their own culture and values fit into the broader multicultural world.
4. Demonstrate the above understandings through graded exams, original papers and presentations, or projects.

HIST 101, 102, 251, 252, 254, 255

Goal 10B Learning Outcomes — Beginning foreign language courses

Stated Goal: To develop communication skills in a foreign language and an understanding of its cultural context.

Student Learning Outcomes
Students will:
1. Be able to describe and explain the principal features of the culture(s) of at least one major area outside of the United States and how those features have changed over a substantial period of time.
2. Be able to analyze products of the culture(s) such as literature, philosophical or religious texts, built environments, works of art, or rituals.
3. Demonstrate skills in relating changes in cultural expression to diverse aspects of its context including:
   a. political conflict;
   b. economic and technological change;
   c. environmental factors;
   d. interaction with other cultures through trade, travel, migration, or conquest;
   e. changes in social organization.

Goal 11 Learning Outcomes — ECON 100, 201, and 202; POLS 101

Stated Goal: To understand how political and/or economic organizations, structures, and institutions function and influence human thought and behavior.

Student Learning Outcomes
ECON 100, 201, and 202

Students will:
1. Read economic texts and articles critically, analyzing and examining economic models, organizations, structures, and institutions.
2. Develop an “economic thought process” (e.g., an approach that examines human actions and interactions which places a strong emphasis on choices by individuals who continually compare expected benefits and costs).
3. Demonstrate knowledge of key economic concepts and an ability to apply basic economic theory.
4. Explain and evaluate basic current economic concepts and controversies published in daily newspapers and weekly news magazines (e.g., The Wall Street Journal, or Business Week).
5. Demonstrate a basic understanding regarding the generation, construction, and meaning of economic data, and further exhibit an ability to analyze, interpret, and use this data.

POLS 101

Students will:
1. Demonstrate a well-rounded knowledge of American government and politics sufficient to fulfill civic education goals.
2. Demonstrate an understanding of how political scientists analyze and interpret the foundations, institutions, processes, and actors that constitute American government and politics.
3. Demonstrate critical thought about American government and politics.
4. Develop effective oral and written communication skills.
5. Engage in political problem solving and decision making exercises.
6. Be exposed to a variety of analytic, methodological, and ideological perspectives in the study of American government and politics.

Toward these ends, students in POLS 101 will:
1) Read texts that focus on the foundations, institutions, processes, and actors that constitute American government and politics.
2) Employ the appropriate interpretive, critical, and empirical frameworks and methods in order to analyze, interpret, and synthesize material relevant to the
study of American government and politics in support of civic education. These approaches and methods will be left to the professional judgment and pedagogical philosophy of the individual instructor.

3) Be tested with regard to recall (remembering terms, facts), comprehension (understanding meanings), application (using information in different situations), analysis (to ascertain the key elements of a theory, structure, institution, process, or event), synthesis (to generalize or create new ideas from existing sources), and evaluation (to discriminate and assess the value of evidence). (The types of testing employed will be left to the discretion of the individual instructor. Testing can range from traditional exams to critical research papers to groups projects to simulations to case studies.)

Goal 12 Learning Outcomes — ANTH 100; SÖC 101, 102; PSYC 101

Stated Goal: To understand how people function within society. (These courses emphasize broad topics concerning individual and/or group behavior, and demonstrate the central analytical approaches used in the social sciences.)

Student Learning Outcomes

ANTH 100 recognizes that culture consists of the traditions, customs and accumulated knowledge learned by individuals as they mature within societies. The functioning of individuals within socio-cultural systems is normally an unexamined process because the maintenance of cultures often depends on individuals not understanding how the system works and how much of individual behavior and values are determined by the nature of the economies and polities in which they are raised. As the teaching of anthropology depends greatly upon understanding our own society through comparing it to others, students who successfully complete this course will have a better appreciation of how individuals become acculturated into their own society, subculture, and/or nation; and how the various aspects of societies are integrated into viable and sustainable systems.

Students will:

1. Read about and visually study (through various audio-visual means) individuals and groups functioning within diverse societies, both past and present. This should include how economics, technology, art, religion, politics, and philosophy are all integrated with each other in functioning societies.

2. Critically assess their own role in their society through cross-cultural comparisons with individuals functioning in other societies.

3. Describe how their own culture and values fit into the broader multicultural world.

4. Compare a variety of cultures to one another with respect to the components of societies (religion, art, technology, economics, etc.) and how they contribute to making the system sustainable.

5. Demonstrate the above understandings through graded exams, original papers and presentations, or projects.

SOC 101 and 102

Students will:

1. (101) Demonstrate an awareness of the general sociological theory and research methods.

2. (101) Read academic texts to critically analyze the social groups and institutions.

3. (101) Demonstrate an understanding of sociological theory and method with regard to the analyzing social groups and institutions.

4. (102) Demonstrate an awareness of the general sociological theory and research methods.

5. (102) Read academic texts to critically analyze the social groups and institutions as these relate to social problems and issues.

6. (102) Demonstrate an understanding of sociological theory and method with regard to the analyzing social problems in the context of social groups and institutions.

PSYC 101

Students will:

1. Demonstrate an increased awareness of the determinants of behavior including:
   a. How individual, social and cultural differences influence behavior
   b. How learning and cognition influence behavior
   c. How developmental factors influence behavior across the life span
   d. How and what physiological mechanisms affect behavior.

2. Be exposed to research methods as the apply across the breadth of topics studied by psychologists.

3. Be involved in the research process by participating in or by reading original research projects.

4. Be exposed to different theoretical orientations adhered to by psychologists practicing both basic and applied science.

General Education Requirements for Certain Degrees

In addition to required courses in their major field of study, all students graduating from Idaho State University with a bachelor’s or associate’s degree must complete specified General Education Requirements. These General Education Requirements vary from one college to another. Specific General Education Requirements in each college, together with requirements for particular major fields of study, are detailed in the appropriate section relating to each college. The following goal statements provide a reference for the description of General Education Requirements for each degree.

Associate Degrees

All academic Associate Degrees require a minimum of 64 credits. Other requirements differ among the Colleges and departments. The General Education requirements for the degrees listed below are found under the designated college or department. Please note that the Associate of Science degree completes General Education requirements for bachelor’s degrees at Idaho State University ONLY for the Bachelor of Science, Bachelor of Applied Science, Bachelor of Applied Technology, and Bachelor of University Studies.

College of Arts and Sciences

- **Associate of Arts** - Available with a Major in Art, Communication and Rhetorical Studies, Criminal Justice, English, Foreign Language, or History. Complete all the General Education Goals (includes 10A and 10B).

- **Associate of Science** - Available with a Major in Biology, Chemistry, Geology, Mathematics, Physics, or Political Science. Students seeking an Associate of Science degree in the College of
Arts and Sciences must complete the General Education Goals required for the Bachelor of Science.

College of Business
• **Associate of Science**: Goals 1-9, 10A or 10B, 11, and 12. Goal 3 may be satisfied by MATH 160 Brief Calculus or by MATH 130 and MATH 143.

Kasiska College of Health Professions
• **Associate of Applied Science** - Available with a Major in Radiographic Science. Goals 1-6, 8, 9, 11, and 12.
• **Associate of Science** - Available with a Major in Sign Language Studies. Must complete all Goals.

College of Technology
• **Associate of Applied Science** - Available in many programs. Goal requirements differ.
• **Associate of Science** - Available in the Associate Degree Registered Nurse, Emergency Management, Fire Services Administration, or Respiratory Therapy program. Goal requirements differ.

**Bachelor’s Degrees**

**Bachelor of Applied Science or Bachelor of Applied Technology** — **B.A.S./B.A.T.**

Students pursuing the Bachelor of Applied Science degree or the Bachelor of Applied Technology must complete the same goals as those pursuing the Bachelor of Science: Goals 1, 2, and 3; Goals 4 and 5, or 12 hours in the physical or biological sciences; two of Goals 6, 7, and 8; and three of Goals 9, 10A OR 10B, 11, and 12.

**Bachelor of Arts** — **B.A.**

Students pursuing the Bachelor of Arts degree in the College of Arts and Sciences must complete all Goals (i.e., Goals 1-9, 10A AND 10B, and 11-12), while those in other colleges must complete Goals 1-9, 10A OR 10B, and 11-12.

**Bachelor of Arts in General Studies** — **B.A.G.S.**

Students pursuing the Bachelor of Arts in General Studies degree must complete all 12 of the General Education Goals (both 10A and 10B must be completed). Specific requirements for this degree are given under the College of Arts and Sciences.

**Bachelor of Business Administration** — **B.B.A.**

Students pursuing the Bachelor of Business Administration degree must complete Goals 1-9, 10A or 10B, and 11-12. (Note that certain goals may be met by specific College of Business requirements: Goal 3 by MATH 160; Goal 11 by ECON 201 and 202.)

**Bachelor of Fine Arts** — **B.F.A.**

Students pursuing the Bachelor of Fine Arts degree with a major in art, must complete Goals 1-9 (note that for art majors, Goal 6 must be met with courses outside the Department of Art and Pre-Architecture), 10A, 10B, 11, and 12. (Note: Students who are working on the B.F.A. have the option of fulfilling Goal 10B as is, or substituting with an equivalent amount of hours in humanities classes - consult with your advisor).

Students pursuing the Bachelor of Fine Arts degree, with a major in theatre, must refer to the Department of Theatre and Dance for degree requirements.

**Bachelor of Music** — **B.M.**

Students pursuing the Bachelor of Music degree must satisfy Basic Non-Music Requirements as follows: ENGL 102 Critical Reading and Writing - 3 cr; COMM 101 Principles of Speech - 3 cr; Foreign Language (French or German) - 8 cr; Social Sciences - 12 cr; Natural Sciences - 8 cr (including at least one laboratory course); Fine Arts/Humanities (not counting foreign language) - 3 cr; Electives (other than music) - 7 cr.

**Bachelor of Music Education** — **B.M.E.**

Students pursuing the Bachelor of Music Education degree must complete Goals 1-9, 10A or 10B, 11, and 12.

**Bachelor of Science** — **B.S.**

Students pursuing the Bachelor of Science degree must complete Goals 1, 2, and 3; Goals 4 and 5, or 12 credits in the physical or biological sciences; two of Goals 6, 7, and 8; and three of Goals 9, 10A, or 10B, 11, and 12.

See the complete description of the Bachelor of Science in Health Science in the Health Occupations Department in the College of Technology section of the catalog.

**Bachelor of University Studies** — **B.U.S.**

Students pursuing the Bachelor of University Studies degree must complete Goals 1, 2, and 3; Goals 4 and 5, or 12 hours in the physical sciences, or 12 hours in the biological sciences; two of Goals 6, 7, and 8; and three of Goals 9, 10A or 10B, 11, and 12. Candidates may fulfill a goal using courses other than those listed in the Undergraduate Catalog description of the goal, but the B.U.S. Committee must approve such substitutions.

**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 degree after earning a first bachelor 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 for a second degree and the General Education Requirements for each degree (a minimum of 160 total credits). A student with a bachelor 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 degree.

### Majors and Minors

#### Major Concentration

Students must declare a major at 58 credits. For assistance with choosing a major, contact the Career Center, 4th Floor Museum Building, (208) 282-2380. Departmental graduation requirements are satisfied by 24-30 semester hours in the major concentration. Some degree programs may require more than 50 hours in the major. In general, the number of credits in excess of 50 credits earned in a major field must be reflected by that same number in the total number of credits required for graduation. The number of hours and particular courses required or recommended vary by department and are more fully described in this catalog under department headings.

#### 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.

### Intent to Major

Each degree-seeking student admitted to Idaho State University will indicate an intent to major in a subject field in which a degree is offered by the university. As a part of the admissions process, the student will select from a coded list of majors the one which most appropriately applies to his/her educational goal. If a student intends to pursue a double major or to seek two degrees, the student will select both of the codes for the two majors or for the two degrees. The major code (or codes) will be entered by the Admissions Office on the student’s record. The student will be considered a pre-major in the field selected. A student may elect to change an intent to major by notifying the college coordinator of the new major code to be entered on his/her record.

### Application for Status as a Major in a Field of Study

When a degree-seeking student has completed the prerequisites for majoring in a field of study, the student should apply to the appropriate department or college for admission to status as a major and be accepted as a major by the department or college no later than the time at which s/he has acquired 58 semester credits. Failure to do so will block subsequent registration as a degree-seeking student. No student may graduate from the University without having been accepted as a major by the appropriate department or college.

The student will initiate the application for status as a major by filing an application form with the appropriate department or college. A student who is pursuing a double major or a double degree must apply to both of the appropriate departments or colleges.

A student may change his/her status as a major by applying to and being accepted into the appropriate department or college for the new major.

### Double Major

A student may 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. The primary major will be that for which the degree awarded requires the largest number of general education credit hours. The primary major’s department and college will be considered the student’s home department and college for administrative purposes.

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 graduation staff in the Office of Registration and Records by the posted graduation application deadline for the relevant term. Students should consult with a program advisor or department chair for any program restrictions to this policy.

### Graduation Requirements

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 degree, diploma, or certificate when is 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.

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 the college dean before the degree will be granted.

Application Deadlines

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 last day of spring semester.

How To Apply

Academic Undergraduate Students

- In person: Contact the Office of Registration and Records, located in the Museum Building, Room 319, at (208) 282-4225
- On-line: http://my.isu.edu

College of Technology Students

- In person: Student Services Office, located in the RFC Building, Room 184, at (208) 282-2622
- On-line: http://www.isu.edu/graduate

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

- Paying by credit card: Contact the Cashier’s at (208) 282-2900
- Paying in person:
  - Academic students: contact the Registrar’s Office
  - College of Technology students: contact the Student Services Office

Additional Deadlines

Transfer Work

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

Incomplete Grades

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

Additional Information Website:
http://www.isu.edu/areg/grad.shtml#gradapp

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.
- Of the last 50 credits applied to a Bachelor’s degree, 32 must be Resident Credits, as defined above and approved by the department.
- 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 under Alternative Credit Opportunities.

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 Credit, 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 128 undergraduate credits are required for graduation with a bachelor’s degree. At least 36 of the credits counted toward graduation must be in upper division courses carrying 300 or 400 numbers. Sixteen of these credits must be earned in courses in the 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 110)
• 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 year in which the student graduates by that same number of credits required for graduation.

Catalog Requirements
Candidates for associate or bachelor’s degrees may choose to fulfill the degree requirements stated in any one catalog in effect during their enrollment at Idaho State University, subject to the following stipulations:

1. Candidates for bachelor’s degrees must use a catalog in effect the year that they were accepted into their major program or any later year. For majors without a formal acceptance process, the choice of catalog year begins with the year in which the student first files an intent to major in that field. For students who change majors, it begins with the year in which they changed majors.

2. The catalog cannot precede the academic year in which the student graduates by more than 8 years.

3. Selection of a catalog for certifying graduation requirements must be approved by the department’s chair or program director.

4. Students with a gap in enrollment in 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 accumulative 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. Honors designations must be approved by the student’s major department and dean. 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.

198P, 298P, 398P, 498P 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.

199, 299, 399, g499 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.

493 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.

g497 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 or 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 without participating in the discussions or submitting work for a grade.

Courses posted in the Class Schedule with an “A” in the column to the right of the Index Number allow students to choose the audit option when registering up to the 10th day of the semester or session. Changing from audit to credit is NOT allowed at any time.

To enroll in courses not so listed, and/or to change from credit to audit option after the 10th day of classes to the end of the 10th week (last day to Withdraw), the student must obtain permission by using a Schedule Change Card and having his/her College Dean sign it in addition to the instructor and Department Chair. 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. Attendance as an auditor does not entitle one to receive course credit, participate in discussions, or take examinations. Schedule Change Cards are available at the Registration and Records Office window and are searchable at isu.edu.

Course Numbering
Courses numbered 000-099 do not carry academic credit. Courses numbered 100-299 are lower division courses for freshmen and sophomores, respectively.

Courses numbered 300-499 are upper division courses for juniors and seniors, respectively. Courses above 300 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 g4xx are the undergraduate counterparts of graduate courses numbered g5xx, in which extra work is required for graduate credit. Applicability of g5xx courses to degree requirements is determined by the department offering the degree. Credit is not generally granted toward a graduate degree for g5xx courses when the corresponding g4xx course was taken at the undergraduate level.

Courses numbered 6xx and 7xx are for students admitted into Graduate School only.

Courses numbered 9xx 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
- AF = Fall Semester, every other year (Even or Odd may also be noted)
- AS = Spring Semester, every other year (Even or Odd may also be noted)
- ASu = Summer Semester, every other year (Even or Odd may also be noted)
- D = On Demand - Students should contact the department to ask when this course will be offered.
- R1 = Course is rotated every year, either Fall or Spring
- R2 = Course is rotated every two years, either Fall or Spring
- R3 = Course is rotated every three years, either Fall or Spring
- W = Web (Internet) interactive course, scheduled in conjunction with Idaho State University semester(s); contact department for details.

A course number including a lower-case “g” (for example, BIOL g432) indicates that the course may also be offered for graduate credit. The appearance of the g-numbered course in a list of required or elective courses does NOT indicate that the student is to take the course at graduate level.

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 register for ENGL 90.
2. Students with an ACT English score of 18-24 and students who have passed ENGL 90 register for ENGL 101.

For questions regarding COMPASS (placement test) scores, SAT scores, or ACT scores over 27, contact the Department of English and Philosophy: (208) 282-2478.

Advanced Placement Options
Qualified students may satisfy the ENGL 101 requirement by two means:

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 101 course may proceed to ENGL 102.
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 101-equivalent credits. Students who receive a 5 on the same test(s) will receive two grades of “Satisfactory” and three ENGL 101-equivalent credits and three ENGL 102-equivalent credits.

Because Goal 1 courses advance acquisition of writing skills important for academic success, students are encouraged to complete them in timely fashion. Accordingly, ENGL 101 should normally be completed during the freshman year, ENGL 102 by the conclusion of the sophomore year.
### Mathematics

All mathematics courses except MATH 015 have prerequisites. Students place into a course either by completing the prerequisite courses with a grade of C- or better (in MATH 015 and 025) 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. Courses that fulfill Goal 3 are in borders.

![Prerequisite Chain Diagram](image)

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 one 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 per Semester

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

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

### Grade Reports and Transcripts

Report cards are not automatically sent to students at the end of the semester. Students may access report cards electronically by logging on to the MyIdaho State University web portal at [http://my.isu.edu](http://my.isu.edu).

Current students and students who have attended within the past five years may also access their unofficial transcripts via the MyIdaho State University web portal at [http://my.isu.edu](http://my.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](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. A $10 fee is charged for rush orders, which are processed within 24 working hours.

### 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...
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.

**Not Attending**

NA is recorded, on a midterm grade report only, when a student has not been attending the class section for which s/he is registered. Students receiving this mark are notified of the options to re-register in the correct section or withdraw.

**No Record**

NR is recorded when a grade has not been submitted by the instructor, but there is no evidence of the student’s having withdrawn from the course. No credits are awarded for a course in which NR is recorded.

**Pass/No-Pass Grades**

P/NP grades are given in courses taken under the pass/no-pass option (only certain courses, as indicated in the Class Schedule by the Department, may be taken this way). 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 at the original registration of classes, not later; 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.

Instructors will report ordinary letter grades on the grade list. The Office of Registration and Records will affix to the student’s transcript a P for letter grades A, B, C, or D, or an NP for a letter grade of F. The P or NP may be changed on the transcript to the original letter grade only by petition.

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

**Satisfactory/Unsatisfactory**

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

**Withdrawal Grades**

A student may withdraw from a course in the first ten days of a semester; no transcript entry will reflect his/her ever having been in the course.

From the end of the registration 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 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**

Only D, F, U, NA (not attending), NP (not passing), or I grades are reported at midterm. Students receiving such grades will be notified by electronic mail. Those grades are not recorded on the student’s transcript and are not used in grade point average computations.

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**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; and S or U, for Satisfactory/Unsatisfactory performance. 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.

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

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 Registration and Records in Pocatello or Student Services Offices in Idaho Falls, Twin Falls, or Boise. A student’s election of the +/- grading is final and cannot be reversed.

No credits are awarded for any course in which an F grade is earned. A grade of C-, D+, D, D-, or F is considered failing for students pursuing graduate level programs or degrees.

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

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 Registration and Records in Pocatello or Student Services Offices in Idaho Falls, Twin Falls, or Boise. A student’s election of the +/- grading is final and cannot be reversed.

**General Information**

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 Registration and Records in Pocatello or Student Services Offices in Idaho Falls, Twin Falls, or Boise. A student’s election of the +/- grading is final and cannot be reversed.
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, including transfer credits, 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

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, and
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 students 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 fall or spring semester, undergraduate students may be placed on probation if the accumulative 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.
Dismissing Policies

There are two types of Dismissal from Idaho State University: Dismissal from an Undergraduate Program for Academic and/or Nonacademic Reasons, which occur at the level of the department or instructional program, and Scholastic Dismissal, which occurs at the University level. Each type of Dismissal has its own rules and appeal process.

Dismissal from an Undergraduate Program for Academic and/or Nonacademic Reasons

Students receiving letters of dismissal from a program will automatically be dropped from all courses exclusive to that program regardless of whether they choose to appeal and will receive a full refund of fees. A “W” grade will then be entered on the transcript for all program exclusive courses not completed. Students receiving this kind of dismissal letters after the 10th day of classes may petition the dean of the college for permission to complete the program exclusive courses in which they are enrolled. Students who appeal the dismissal will be blocked from registration for further program exclusive courses during the appeals process itself. For appeal procedures, see the subsection of the Student Handbook entitled “Procedures for the Appeal of Dismissal” or the Student Handbook online at http://www.isu.edu/studenta/handbook.pdf.

A student may be dismissed from an undergraduate program by a department/college according to the Dismissal policy described in the Appeal of Dismissal from an Undergraduate Program section located in the Student Handbook and online at http://www.isu.edu/studenta/handbook.pdf.

Scholastic Dismissal

A student who has been academically dismissed under scholastic probation may take courses for credit at Idaho State University only during a session of Summer semester. If the grades earned during the summer are sufficient to bring the Idaho State University GPA above a 2.00 the student will be allowed to attend Fall Semester.

If a student on academic dismissal attends during the summer and does not earn a 2.00 GPA, that student will be placed on “continued dismissal” and must fulfill the previously assigned layout period during the Fall and/or Spring semester(s).

A student may also petition to audit courses with approval of the instructor and academic dean, or petition the Readmission Review Board for fall or spring enrollment.

If academically dismissed, a student must lay out one semester for a first dismissal and two semesters for a second dismissal. A third dismissal requires a layout of two semesters, and the student must send a petition to the Readmission Review Board, who will determine eligibility for readmission.

The Readmission Review Board is located in the Academic Advising Center (SAAC), Room 316, Administration Building.

Students will be notified at mid-semester as to whether they are doing D or F work in any class. The students’ advisors will also receive this information so they may work with the students to try to prevent probationary status. (Refer to Academic Dismissal and Reinstatement under Petitions, below.)

For Graduation, Progression, and Probation Requirements for Students in the College of Technology, see the College of Technology section of this catalog.

Petition Policies

A 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 student’s advisor, 2) a recommendation by the chair of the department offering courses in the subject field or by a special committee overseeing the requirement, and 3) catalog copy of descriptions of courses transferred from other institutions if the course is to be considered in a test of course equivalency. All copies of the petition are to be advanced to the Registrar’s Office for action after all signatures are affixed. Decisions may require several weeks, and notice of the result will be mailed to the student. A student may petition:

1. Deletion of Idaho State University grades from computation in the grade point average (GPA) under the conditions which follow:

a. When a student changes to a radically different curriculum, lower division courses which are not required in nor appropriate to the new curriculum may be eliminated from computation of grade point averages for the purpose of determining probation or graduation at the discretion of the dean who has responsibility for the new curriculum.

b. Elimination of computation of courses from grade point average by petition also results in the elimination of the corresponding course credits.

c. This adjustment will not be made until the conclusion of one semester in the new curriculum.

d. Courses (and their prerequisites) that satisfy any general education requirements in the University cannot be removed from GPA computation, even if alternate courses meeting the requirement have been taken.

2. Academic dismissal and reinstatement. Students will be notified at mid-semester as to whether they are doing D or F work in any class. The students’ advisors will also receive this information so they may work with the students to try to prevent probationary status.

Following dismissal, under the scholastic probation ruling, a student on first dismissal will be automatically reinstated after a one semester layout, but must meet with an advisor in order to register for classes. A student on second dismissal will be automatically reinstated after a two-semester layout and must meet with an advisor to register. A student who has been dismissed three or more times must lay out two semesters, petition the Readmission Review Board for reinstatement, and meet with an advisor to register. Readmission to the University does not mean readmission to the program or major in which a student was enrolled prior to dismissal. See the appropriate department or college advisor for information on readmission to that program. Readmitted students will be on academic probation and must attain at least a 2.00 GPA for the semester to avoid another dismissal.

Students who wish to petition the layout period or who have been dismissed three or more times will need to submit an Undergraduate Petition and the three-page Supplement to the Readmission Review Board located in the Academic Advising Center in the Administration Building. Students must have a major
advisor or department chairperson add his or her recommendation to the petition prior to submitting it to the Readmission Review Board. The petition deadlines are two weeks before Fall semester begins and one week before Spring semester begins. Decisions reached by the Readmission Review Board are final. The summer semester does not qualify for a semester layout. Students who are dismissed must lay out either Fall and/or Spring semester(s). Students on dismissal may attend one or more sessions within the Summer semester at their own discretion but will NOT be eligible for Financial Aid.

Dismissed students who have not laid out the required time period, but who attend one or more sessions within the Summer semester and wish to attend Fall or Spring semester, will need to petition the Readmission Review Board for admission unless grades from Summer are sufficient to remove the student from probationary status.

3. Substitution of departmental requirements. A student may petition to substitute courses in lieu of departmental requirements. The course or courses the student wishes to substitute must be approved by the departmental chairperson.

4. Substitution of the general education requirements. A 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 department chairperson of the discipline in which the course being petitioned is offered.

5. General education requirements deficiencies. A transfer student may petition to waive a maximum of one credit hour in the area of humanities, social science, or natural science to fulfill the general education requirements. This normally pertains to students transferring to Idaho State from an institution which uses the quarter system rather than the semester system.

6. Pass-No-Pass option. A student may petition to have a P or NP converted to a letter grade. The petition must contain the grade assigned in the class and must be signed by the class instructor. (See Section on Pass-No Pass Grades.)

Probation Policy

Scholastic Probation

At the end of any semester, undergraduate students may be placed on probation if the 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. However, a student with 26 or more credits must maintain an Idaho State University GPA of 2.0.

Students on scholastic probation who attain a cumulative GPA higher than the minimum required on the scholastic probation scale are automatically removed from probation.

Students on scholastic probation who attain a GPA of 2.0 or higher during the next or subsequent semester after being placed on probation, but whose cumulative GPA is still below the minimum required for their class level, will be on “continued probation.”

A student on probation will be dismissed at the end of any probationary semester in which the student obtains a GPA of less than 2.0 unless the student is a freshman and has not attempted 12 or more Idaho State University credits (not including withdrawals).

A student on probation who attends a session during Summer semester, but does not earn a 2.00 GPA and does not achieve the appropriate Idaho State University GPA, will be on continued probation.

Withdrawal Procedures*

During the first 10 class days of each fall and spring semester (this is called the Registration Period), students may drop and add classes freely. No grades are recorded to reflect their presence in those classes dropped during this period.

After the Registration Period, students may withdraw either from a class or from the University. Check the Academic Calendar at the front of this catalog for the withdrawal date for each semester. The deadline for withdrawal from a class is one week after the official midterm grade reporting deadline as indicated in the Academic Calendar. There are different procedures to follow before and after the withdrawal deadline. 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 the web or obtain a schedule change card from the Office of Registration and Records, or see an advisor in the Academic Advising Center (SAAC).

To withdraw from the University (withdraw from all classes) prior to the deadline, the student may use the web or obtain a Withdrawal Permit from the Office of Registration and Records. 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 initially 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 curricular or admissions problems.

Students may withdraw from individual classes for hardship reasons only--this includes medical reasons.

Students wishing to withdraw completely (from all classes) after the established deadline but before the end of the semester must contact the Dean of their College to determine available options.

Students wishing to withdraw completely after the end of the semester must use the Undergraduate or Graduate Student Petition form available from the Registrar’s Office or the Dean of the College in which the student is enrolled (or Student Services for College of Technology students). The procedure is the same as the petitioning process for considering extraordinary curricular or admissions problems.

*At the time of publication, the Withdrawal Policy was under review; it remains subject to change.
Medical Withdrawal Policy*

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

Voluntary Medical Withdrawal (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 (typically the Friday before Closed Week—consult Class Schedule), a student first needs to completely withdraw from all classes through the Office of Registration and Records (via a paper form or on the web). 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 Registration and Records, the Counseling and Testing Center, Supplemental Academic Advising Services, the Student Service Office in the College of Technology, and the outreach offices of Idaho Falls, Twin Falls, and Boise. 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 (typically the Friday before Closed Week—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 Sciences for undecided students). If the dean (or designee) grants the student a hardship withdrawal, the student may then pursue a medical withdrawal designation as outlined in the above paragraph. The dean (or designee) may choose instead to sign a referral allowing the Student Health Center to examine the evidence (always medically related) and determine whether a withdrawal is warranted. Only if a hardship withdrawal is granted, or a referral is signed by the dean’s office, will the Medical Withdrawal Committee consider a request for a medical withdrawal designation.

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.

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.

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](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

Subject-Area CLEP Scores Required for Credit
Idaho State University will grant credit for approved CLEP exams and scores. Contact the Office of the Registrar or academic departments for further information.

Credit by Challenge Examination
Enrolled Idaho State University students may obtain credit by course-specific examinations only with permission of the department and the college. Other relevant policies are as follows:

- Students may challenge a course through examination by 1) obtaining approval through petition, and 2) passing the challenge examination.
- Students must procure the petition from the office of the Dean of the College of their major.
- If the petition to take the examination is approved, students must pass the examination at the level required by the course in order for challenge credits to be awarded.
- A student may sit for a challenge examination only in a course in which s/he has not yet registered. Students may not receive credit by challenge examination either for courses already completed or for courses that are prerequisite to courses already completed.
- 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 grade point average for that semester, but are used in calculating the cumulative grade point average.
- A student may complete a total of 24 credits by challenge examination toward an associate degree.
- A student may complete a total of 48 credits by challenge examination toward a baccalaureate degree.
- The cost of each credit earned by challenge examination is 33% of the current cost per credit hour, payable to the Idaho State University Cashier’s Office prior to the examination.
- Credits earned by passing a challenge examination are considered resident credit.

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

Credit through DANTES
The College Level Examination Program (CLEP) general and specific subject-area examinations administered through Defense Activity for Nontraditional Education Support (DANTES) are treated in the same manner as those taken through the traditional CLEP. Only elective credits may be granted to those completing the general examinations, while subject-area CLEP examinations may satisfy specific goals in the General Education Requirements. Refer to the section describing College Level Examination Program credit in this catalog for details.

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, 32 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 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.

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

Correspondence and Extended Learning
Online Courses

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

Independent Study in Idaho
PO Box 443225
Moscow ID 83844-3225
(208) 885-6641 or (877) 464-3246
Fax 208/885-5738
indepest@uidaho.edu
www.uidaho.edu/isi

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

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

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

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.
Individualized Degree Programs

The degrees described here 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>Electronic Systems Technology 3-year A.A.S.</th>
<th>All Other ISU CTech A.A.S. Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTE credits applied toward the BAS/BAT degree*</td>
<td>76 (58 lower division credits awarded; 18 upper division credits awarded for coursework completed for A.A.S degree)</td>
<td>Up to 50 credits (all lower division credits)</td>
</tr>
<tr>
<td>General Education Requirements, 16 credits of which will be completed in the A.A.S</td>
<td>approximately 31</td>
<td>approximately 34</td>
</tr>
<tr>
<td>Academic Coursework**</td>
<td>29 (18 of these 29 academic credits must be upper division credits; these credits are all earned beyond coursework completed for the A.A.S degree)</td>
<td>44 (36 of the 44 academic credits must be upper division credits)</td>
</tr>
<tr>
<td>TOTAL MINIMUM CREDITS REQUIRED</td>
<td>136</td>
<td>128</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 technical coursework. All BAS/BAT students must earn a minimum of a 2.0 GPA in academic coursework for graduation. No more than 32 credits of the academic coursework may be taken from the College of Business. 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) 282-2939
http://www.isu.edu/apptech/BAT.shtml

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 the same goals as those pursuing other Bachelor of Science Degrees: Goals 1, 2, and 3; Goals 4 and 5, or 12 credits in the physical or biological sciences; two of Goals 6, 7, and 8; and three of Goals 9, 10A, or 10B, 11, and 12. Other specific goal requirements may be listed under individual health occupations program curricula.

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 five 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 Health Occupations Department in the College of Technology section of this catalog.

College of Technology Student Services
RFC Building (#48)
(208) 282-2622
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 a Senior Essay, a BUS Committee interview, and achievement of a 2.5 cumulative GPA are required for graduation. The BUS degree requires careful and thoughtful planning. At least 24 semester credit hours (including 16 upper division hours) in a student’s approved program of study must be taken after the semester in which admission to BUS was approved. For information about this degree, contact:

For information about this degree, contact:
Director, Bachelor of University Studies
Business Administration Bldg, Rm 248
921 S 8th Ave Stop 8087
Pocatello ID 83209-8087
(208) 282-3204
http://www.isu.edu/artsci/BUS.html

University Studies Course
US 490 Capstone Project 1 credit. Project to demonstrate the student’s progress toward goals agreed to at start of program. May be repeated once for a total of two credits. Graded S/U. D

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 Sciences.

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

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 Contract:
Office of Admissions
921 S 8th Ave. Stop 8270
Pocatello, ID 83209-8270

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 English-language instruction, ELS Language Centers, is located in the Continuing Education Center 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 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
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 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
Idaho State University
Stop 8075
Pocatello, ID 83209
Phone (208) 282-2150

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

Idaho State University fees for Approved WUE Students are equal to 150% of the Idaho State University full-time resident fee rate. Fees for College of Technology sessions (early or late eight-week sessions within a semester) are half that amount.

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

WUE recipients will receive notification from:

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

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

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

Through the Oak Ridge Institute for Science and Education (ORISE), the DOE facility operated by ORAU, undergraduates, graduates, postgraduates and faculty may access a multitude of opportunities for study and research. Students may participate in programs covering a wide variety of disciplines including business, earth sciences, epidemiology, engineering, physics, geological sciences, pharmacology, ocean sciences, biomedical sciences, nuclear chemistry, and mathematics. Appointment and program length range from one month to four years. Many of these programs are especially designed to increase the numbers of underrepresented minority students pursuing degrees in science- and engineering-related disciplines. A comprehensive listing of these programs and other opportunities, their disciplines, and details on locations and benefits can be found in the ORISE Catalog of Education and Training Programs, which is available at www.orau.gov/orise/educ.htm, or by calling either of the contact persons below.

ORAU’s Office of Partnership Development seeks opportunities for partnerships and alliances among ORAU’s members, private industry, and major federal facilities. Activities include faculty development programs, such as the Ralph E. Powe Junior Faculty Enhancement Awards, the Visiting Industrial Scholars Program, consortium research funding initiatives, faculty research and support programs as well as services to chief research officers.
For more information about ORAU and its programs, visit the ORAU website at 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)

**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. More information is available online at: [http://www.isu.edu/summer](http://www.isu.edu/summer)

**Idaho State University Boise**

Dean, Academic Programs:

Ms. Bessie Katsiromiches  
Idaho State University–Boise  
12301 W. Explorer Dr. Ste. 102  
Boise ID 83713  
(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–Boise offers several programs in the health professions.

Idaho State University–Boise currently offers five undergraduate programs, including an Associate of Science in Paramedic Science, Bachelor of Science degrees in Communication Sciences and Disorders, Clinical Laboratory Science, and Educational Interpreting, and a 16-month Fast Track Nursing program. Idaho State University–Boise 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 oversees third- and fourth-year professional pharmacy students, including clinical rotations in the Boise area. Other programs housed at Idaho State University–Boise 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–Boise.

Idaho State University–Idaho Falls  
Dean, Academic Programs:  
Lyle Castle, Ph.D.  
Idaho State University–Idaho Falls  
350 University Place  
1784 Science Center Drive  
Idaho Falls, ID 83402  
7800 from campus telephones  
(208) 282-7800 from off campus  
[www.isu.edu/departments/ifche](http://www.isu.edu/departments/ifche)

Idaho State University–Idaho Falls is the higher-education center of one of Idaho’s most dynamic cities. It offers a comprehensive general education curriculum as well as 29 complete degree programs, all from a Carnegie-classified research institution with more than 50 years of experience in helping Upper Snake River Valley residents achieve their goals. Idaho State University–Idaho Falls is the largest of Idaho State University’s statewide network of higher-education centers. It provides more than 2,000 students each semester the opportunity to complete associate, bachelor’s master’s, 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 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–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 Sciences, Education, and Health Professions. Idaho State University-Twin Falls provides the upper-division and graduate work on a rotating schedule, while the general education requirements and most other lower-division courses are available through CSI. University professors and highly qualified local adjunct instructors ensure that course quality is equal to that found on the Pocatello campus.

An interactive telecommunications system has broadcast classes live from Pocatello to CSI since 1990. Courses in anthropology, biology, corporate training, education, English, geosciences, health education, history, library science, mass communications, 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

Victoria Bañales, Director and Instructor

Division of Continuing Education and Conference Services
1001 N 7th Ave. Stop 8062
Pocatello ID 83209-8062
(208) 282-3155
(800) 753-4781
http://www.conteduc.extendedlearning@isu.edu

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 Boise. 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, Elderhostel, Intermountain Conference on the Environment, Science, Nature, Astronomy, Research and Forensics (SNARF), 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.

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 Institute for Learning in Retirement, an arm of the national Elderhostel program, Idaho State University has developed this new program for Idahoans 50 years and older, featuring member-directed, peer-led programs throughout the year, and short courses in a wide variety of areas. Members join for one year and all programs are open to them in Pocatello and Idaho Falls.

Conference and Workshop Services
Continuing Education can provide conference coordinating services assistance in delivering a variety of programs to a broad range of audiences. Programs can be held on campus, at facilities in Pocatello, or at a distant site. Comprehensive services are available to off-campus as well as on-campus individuals and groups, and include program planning, bid preparation, brochure preparation, marketing, direct mail and customized mailing list development, financial administration, registration services, arrangements and logistics, and evaluation. Fees are based upon size of the group, length of the program, and the amount and type of services required.

Elderhostel
Elderhostel is an educational travel program for older adults who want to continue expanding their horizons and developing new interests and enthusiasms. Elderhostel offers to students 55 and older a dynamic, noncredit, and low cost week of college-level study with 22 hours of academic coursework and field trips. Idaho State University offers Elderhostel currently on the Pocatello campus and in the Ketchum/Sun Valley area. Resident students are housed in a motel in Pocatello and in a local lodge in Ketchum. All facilities have private baths. Commuters have reduced rates and are always welcome. Courses range from the Oregon Trail and Railroad History to Environmental Issues to Pharmacology. Intergenerational Elderhostel (grandparents and grandchildren) started in 1997, as did the Institute for Learning in Retirement, a membership program specifically geared toward local participants.
**Student Services**

**ADA and Disabilities Resource Center**
Graveley Hall Lobby  
921 S 8th Ave Stop 8121  
Pocatello ID 83209-8121  
(208)282-3599  
www.isu.edu/ada4isu

The ADA and Disabilities Resource Center is located in the lobby of Graveley Hall. Students with documented disabilities who merit 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 or TTY by calling (208) 282-3599.

**Americans with Disabilities Compliance Statement**

The Americans With Disabilities Act (ADA) is the civil rights guarantee for persons with disabilities in the United States. It provides protection from discrimination for individuals on the basis of disability. The ADA extends civil rights protection to people with disabilities in matters which include transportation, public accommodations, accessibility, services provided by state and local government, telecommunications, and employment in the private sector.

Idaho State University, in the spirit and letter of the law, will make every effort to comply with “reasonable accommodations,” according to Section 504 of the Rehabilitation Act of 1973 and the Americans With Disabilities Act. ISU will not discriminate in the recruitment, admission, or treatment of students or employees with disabilities.

In order for the ADA Center to arrange accommodations for those who need assistance, the Center requests notification as early as possible so that timely arrangements can be made. For further information or questions, please contact Dennis Toney, Director, ADA and Disabilities Resource Center, Room 123, Graveley Hall, (208) 282-3599.

**Affirmative Action/Equal Employment Opportunity**

Administration Building, Room 313  
(208) 282-3964 or (208) 282-3973

Idaho State University endeavors to achieve equal educational and employment opportunity for minorities, persons with disabilities and women through recruitment, admission, curricular and extracurricular programs, advising and retention practices, and student aid. Discrimination affecting any person based on race, religion, gender, sex, national origin, or disability is illegal and should be reported to the Affirmative Action/EEO office (see location and phone numbers above). No person will be retaliated against for filing a complaint regarding harassment or discrimination.

**Associated Students of Idaho State University (ASISU)**

Hypostyle, Room 299  
921 S 8th Ave Stop 8008  
(208) 282-3435  
www.isu.edu/asisu

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

**Athletics**

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, especially soccer, karate, and volleyball.

**Athletic Eligibility**

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

**Career Center**

440 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 Career and Life Planning Courses, online career information, 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, and other job search strategies. We also offer job listings which include full-time opportunities to part-time and temporary positions. Throughout the year 6 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**

1st Floor, Student Union  
(entrance below east end of Hypostyle)  
921 S 8th Ave Stop 8128  
(208) 282-3912

The Cooperative Wilderness Handicapped Outdoor Group, C. W. HOG, shares its office with the Outdoor Program in the lower
level of the Student Union. The mission of Cooperative Wilderness Handicapped Outdoor Group, located on the 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
1st Floor, Student Union
921 S 8th Ave Stop 8119
(208) 282-3281
www.isu.edu/stunion/craftshop

The Craft Shop is a workshop facility established for students and the University community. Work Centers include a wood shop, clay studio, dark room, sewing area, mat cutting tables, and a fibers area. Staff members are available to help you get acquainted with the shop. Non-credit classes are offered in a variety of arts and crafts.

Diversity Resource Center
Student Union, Third Floor
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)
921 S 8th Ave Stop 8316
Pocatello, ID 83209-8316
(208) 282-2769 (Pocatello)
(208) 282-7868 (Idaho Falls)

The Early Learning Center (ELC) has child care centers in Pocatello and Idaho Falls. The Pocatello Center cares for children six weeks through eleven years of age, while the Idaho Falls Center accepts children ages two through six. Services are provided to Idaho State University students, staff, faculty and alumni. In Idaho Falls, the privilege is extended to the same members of the University of Idaho community. Each center offers a developmentally appropriate curriculum, and USDA approved breakfast, lunch and afternoon snack are provided.

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

Entertainment
Every week during the school year and the summer, the Student Activities Board and other student organizations host a wide variety of activities—movies, concerts, lectures, homecoming events, holiday parties, theatrical plays, celebrations and more! In addition, the Student Union houses a Games Center with video games, billiards, and bowling. For the more relaxed crowd, a television is located in the Bengal Café and also on the lower level of the Student Union.

Intramural Sports Program
Reed Gym
Campus Recreation Offices
921 S 8th Ave Stop 8105
(208) 282-3516

The Idaho State University intramural sports program is designed to improve and maintain health and physical fitness through participation in satisfying sports activities; to make social contacts and build friendships which can enrich college and later life; to develop a knowledge of strategy and techniques and to improve skills in a variety of sports activities; to develop traits such as courage, perseverance, cooperation, confidence, and desire to succeed; and to develop desirable patterns of sportsmanship, fair play, integrity, and respect for self and others. A full program of intramural activities is offered to all students. The Intramural Office is located in Room 243 of Reed Gymnasium.

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) 282-HOPE (4673)
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 Heart Health and Dating Violence Awareness Month (both February), Women’s History Month (March), Sexual Assault Awareness Month (April), Domestic Violence Awareness Month (October), and special days such as Positive Body Image (late February), 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:** Each fall semester, the Center hosts a brown bag lunch series, “Every Other Thursday,” in which ISU researchers present their gender-related work. 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:** Advocates and staff provide supportive assistance to students, staff, and faculty who suffer the effects of relationship violence, sexual assault, stalking or other crimes. Services include:
    - A crisis and information line;
    - Support and referral services for survivors, family and friends;
    - Court/Judicial system advocacy.
  - **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.
  - **1 in 4:** Aims to elucidate the aspects of men’s lives that contribute to, perpetuate and reward men’s violence, and to design ways to counter these forces.

- **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.

- **Leadership Program**
  The Idaho State University Leadership Program was created to help ISU students s-t-r-e-t-c-h 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 Sciences. For more information about the LEAD program, contact:

Jim Fullerton, Leadership Program Director
(208) 282-3154
fulljim@isu.edu
www.isu.edu/lead

**Outdoor Adventure Center**

1st Floor, Pond Student Union
(Lower northwest entrance off the Quad)
921 S 8th Ave Stop 8128
(208) 282-3912

Here is your ticket to adventure, fun and smiles! Students, faculty and staff are invited to participate in any or all of the Outdoor Adventure Center’s activities. The Center offers common adventure-based outings and classes such as canoeing, climbing, cross-country skiing, kayaking, rafting, backpacking, caving, mountain biking, horseback riding, mountaineering, orienteering, and camping. The Center also has a rental center where you can rent equipment for all types 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 also runs the Portneuf Yurt Range Yurt System, consisting of five yurts available for use by winter enthusiasts.

Visit our website at 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, Episcopal, United Methodist, United Presbyterian, and United Church of Christ-Congregational), Latter-Day Saints Student Association, Lutheran Campus Ministry, Muslim Student Association, and Wesley Foundation.
Scheduling and Event Services
2nd Floor, Pond Student Union
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, room set-up, sound, and audiovisual equipment needs.

Student Activities Board
Student Leadership and Involvement
3rd Floor, Pond Student Union
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)-282-2960

The Student Health Center provides low-cost prescription drugs as well as over-the-counter medications at reduced costs. “Cold Kits,” two-day supplies of over-the-counter medications, are available at the Pharmacy free of charge. 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 Health Center Pharmacy
Student Health Center Pharmacy
921 S 8th Ave Stop 8311
(208)-282-2960

The Student Health Center Pharmacy provides low-cost prescription drugs as well as over-the-counter medications at reduced costs. “Cold Kits,” two-day supplies of over-the-counter cold medication, are available at the Pharmacy free of charge. 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.

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

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

TRiO Student Services
Museum Building, Room 312
921 S 8th Ave Stop 8345
Pocatello, ID 83209-8345
(208) 282-3242

TRiO Student Services is a multifaceted, federally funded student assistance program. In order to participate in any of the TRiO programs, potential participants must meet the following criteria:
POST-SECONDARY PROGRAM

Student Support Services (SSS) is a post-secondary retention oriented program that offers academic support services to eligible students. Academic Advisor/Counselors 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.

University Counseling and Testing Services

In Pocatello:
Graveley 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/testing.html

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 counselors or psychologists. Masters and Doctoral trainees (interns) are under the direct supervision of licensed staff.

Consultation and Crisis Intervention Services

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

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

Outreach Services

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

Testing Service

The University Counseling and Testing Service actively pursues the opportunity to serve the University and the community as a full service testing center. In addition to serving the University’s needs for course placement testing, proctoring on-line course exams, and special requests for proctored exams, we currently serve the larger community as a contract test site for: PROMETRIC, ACT, Miller Analogies Test (MAT), GED, Pearson Vue, Kryterion, and CLEP. For current information on the cost and registration process for any of the over 500 examinations available through our center, please check out our website:
http://www.isu.edu/ctc/
Veterans’ Benefits
For any information concerning veterans’ educational benefits, rights, and opportunities, contact:
Veterans Coordinator
Office of Registration and Records
921 S 8th Ave Stop 8196
Pocatello, ID 83209-8196
(208) 282-2676
http://www.isu.edu/areg/veterans/

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, aquacize, step aerobics, yoga, cardiokine, 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. 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. For Wellness Center activities and information during the Summer term, please contact the Department of Health and Nutrition Sciences at (208) 282-2729; office hours are 7:30 a.m. through 4 p.m., Monday through Friday.

All-University Academic Services
Administered by the Office of the Provost and Vice President for Academic Affairs

Center for Teaching and Learning
Rendezvous Building, Room 323
921 S 8th Ave Stop 8010
(208) 282-3662

The Center for Teaching and Learning (CTL) offers programs in college learning strategies, reading, writing, mathematics, and English for speakers of other languages, which include individualized instruction, tutoring, and workshops—all intended to increase the probability of students’ academic success. The Center also administers the Content Area Tutoring Program. There is no charge for these services. Students may also register for credit and noncredit courses taught by CTL staff.

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

College Learning Strategies
The College Learning Strategies Program offers a one-credit course, College Learning Strategies. The areas covered include time management, note-taking skills, reading strategies, memory-improvement, test-taking strategies, controlling test anxiety, and critical thinking. Students can also learn study strategies relevant to their particular courses through individual conferences and workshops.

Mathematics
The Mathematics Center provides drop-in tutoring services to help students on the Pocatello and Idaho Falls campuses understand concepts in math and math-related courses. At the beginning of each semester, the program offers a one-credit course, College Learning Strategies for Mathematics, which covers a wide range of study strategies for math. Students can
also learn about these study strategies through individualized conferences and workshops.

Writing
The Writing Center provides individualized tutoring in the Center and online to help students improve the quality of their writing for courses across campus. At any stage of the writing process, from generating ideas through successive drafts, tutors assist with organization and development of ideas for particular audiences and purposes, as well as more local issues such as punctuation, spelling, and usage. Student workshops, tutoring hours in Idaho Falls, and credit courses—teaching writing on one on one, and writing laboratory—as well as faculty workshops on assignment design, responding to student writing, and writing across the curriculum are also part of the program. Courses used by students in this program are in the American Studies Program (see AMST 100 Introduction to American Culture and Language, a 3-credit course that is letter-graded) and in the Department of English and Philosophy (see ENGL 100 Introduction to Academic Writing and Speaking for ESOL Students at ISU, a 3-credit course that is S/U graded).

English for Speakers of Other Languages (ESOL)
The English for Speakers of Other Languages (ESOL) Program serves undergraduate and graduate students enrolled in academic and professional courses at Idaho State University. The program offers a wide variety of individual tutoring, 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.

Please see the American Studies Program in the College of Arts and Sciences section of the catalog for the description of AMST 100 Introduction to American Culture and Language (3 credits, for a letter grade). See the description of ENGL 100 Introduction to Academic Writing and Speaking for Non-Native Speakers of English (3 credits, graded Satisfactory/Unsatisfactory) in the “English Composition and Language Courses” group in the Department of English and Philosophy, also in the College of Arts and Sciences.

First Year Seminar (FYS)
The First Year Seminar course aims to assist 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.

Clustered Learning for Academic Student Success (C.L.A.S.S.)
The C.L.A.S.S. program creates a learning community for first year students by enrolling small groups together in a cluster of courses that combine First Year Seminar and at least two academic classes. The C.L.A.S.S. program is designed for students who have a high level of achievement in their high school core classes and have earned a score of 20 or higher on the English portion of the ACT (540 or higher on the SAT).

Academic Skills Courses
Academic Skills courses 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.

Academic Skills 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.

ACAD 101 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 102 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 resources and activities on campus. F, S

ACAD 103 College Learning Strategies for Mathematics 1 credit. Covers math anxiety, notetaking, homework, textbook study, learning styles, test preparation and problem solving. Concurrent registration in a mathematics course is recommended. F, S

ACAD 104 Orientation to University 2 credits. Combines content of two courses: Study Skills and First Year Seminar. Introduces students to university culture and to learning strategies and study techniques which promote academic success. Especially recommended for entering students. F, S

ACAD 110 Money Management 1 credit. Covers basic Money Management techniques including: credit, saving, budgeting, debt, food dollars, financial goals, and investing. This is an eight-week course. F, S

ACAD 210 Peer Tutor Training 1 credit. Introduction to individual and small group tutoring with adult students. Emphasis on teaching strategies, communication skills, ethics, learning styles. Graded S/U. F, S

ACAD 220 Peer Instruction Seminar 2 credits. Innovative teaching techniques for peer instructors who will plan the syllabus and collaborate with their faculty/staff teaching partners in preparing for and teaching one section of ACAD 102. Students will research and explore pragmatic applications of teaching, mentoring and leadership theories. COREQ: Peer instructor in ACAD 102. F, S.

ACAD 310 Efficient Reading 1 credit. Emphasis on developing flexibility and acceleration of reading speed and refinement of comprehension skills through intensive practice of rapid reading and comprehension building techniques applied to fiction and textbook reading. PREREQ: Permission of instructor. Graded S/U. D

University Honors Program Overview
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;
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 sci-
Honors Contract courses are departmen
tal 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, 300- and 400-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 Honors Program

Members of the University Honors Program who complete 19 credits of honors coursework, including a 1-credit honors seminar, graduate from the program. This is noted on the transcript and at Commencement. The Honors Degree requires 2 Honors Interdisciplinary Seminars (1 credit each), at least 6 credits of upper division Honors Contract courses, and an honors project or thesis, for a total of 32 honors credits.

Honors Degrees

Graduates of the University Honors Program who complete 32 honors credits will receive one of the following degrees:

- Honors Bachelor of Arts
- Honors Bachelor of Science
- Honors Bachelor of Business Administration
- Honors Bachelor of Fine Arts

Contact Information

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

Director, University Honors Program
Cynthia D. Hill, Ph.D.
921 S 8th Avenue Stop 8010
Pocatello ID 83209-8010
(208) 282-4945
hillcynt@isu.edu

University Honors Program Curriculum

First Year

HONS 101 Honors Humanities I 3 cr
HONS 102 Honors Humanities II 3 cr
HONS 103 Honors Social Science I 3 cr
HONS 104 Honors Social Science II 3 cr
These sequences meet Goals 1, 6, 7, 10A and 11A.

Second Year

HONS 201 Honors Science I 4 cr
HONS 202 Honors Science II 4 cr
This sequence meets Goals 4 and 5.
PHIL 101H History and Philosophy of Science 3 cr
This course meets Goal 8.

Third and Fourth Years

HONS 391 Honors Interdisciplinary Seminar (1 cr, repeated) 2 cr
Honors Contract courses (see explanation above) in student’s major or minor 6 cr
Departmental Capstone Honors Project or Thesis 3-6 cr

Honors Courses

HONS 101 Honors Humanities I 3 credits.
A writing-intensive interdisciplinary course examining relationships between the arts and letters from the Classical Age through the Enlightenment. F
HONS 102 Honors Humanities II 3 credits.
A writing-intensive interdisciplinary course examining relationships between the arts and letters from the nineteenth century to the present. With HONS 101, satisfies Goals 6 and 7 of the General Education Requirements and with grades of C- or better in both courses, also satisfies Goal 1 of the General Education Requirements. S
HONS 103 Honors Social Science I 3 credits.
A writing-intensive interdisciplinary course examining the relationships in the social sciences from the Classical Age through the Enlightenment. F
HONS 104 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. With HONS 103, satisfies Goals 10A and 11 of the General Education Requirements. S
HONS 201 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. With HONS 202,
fulfills Goals 4 and 5. PREREQ: MATH 108 or equivalent.  F

**HONS 202 Honors Science II 4 credits.** Second course in the introduction to science for honors students. A continuation of the concepts developed in HONS 201. Includes laboratory. With HONS 201, fulfills Goals 4 and 5. PREREQ: MATH 108 or equivalent.

**HONS 391 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 493 Honors Senior Thesis or Project 3 credits.** Supervised by a committee of at least two faculty members and approved by the University Honors Program director. DEPT 493H will be used when possible. May be repeated for up to 6 credits. PREREQ: Permission of instructor and Honors Program director.
The Teacher Education Program

The College of Arts and Sciences shares responsibility with the College of Education for the Teacher Education Program. Students may fulfill the requirements of the Teacher Education Program while majoring in a discipline within the College of Arts and Sciences. Application for admission to the Teacher Education Program does not require a student to apply for admission to the College of Education. The Teacher Education Program admission and completion requirements are detailed in the College of Education section of this catalog.

Pre-Health Professions Advising

Idaho State University offers advising for pre-health professional students which prepares them for application to and acceptance by a variety of health professional schools. Health professional programs for which advising is offered include: dentistry, medicine, osteopathic medicine, optometry, podiatric medicine, veterinary medicine, physical therapy, occupational therapy, chiropractic, and physician assistant. For students interested in one of the health professional programs offered at Idaho State University, such as clinical 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 coordinates the Pre-health Professions Advisory Committee that provides

College of Arts and Sciences

Scott S. Hughes, Ph.D., Interim Dean
Raz Stowe, Ph.D., Interim Associate Dean
Sherri Dienstfrey, Ph.D.,
Interim Assistant Dean

The College of Arts and Sciences introduces students to ways of thinking and expression intrinsic to the arts, humanities, and social and natural sciences. Students are thereby aided in the development of intellectual skills and personal values which serve them in career planning and lifelong learning.

Some eighty different curricula provide work leading to Associate of Science, Associate of Arts, Bachelor of Arts, Bachelor of Fine Arts, Bachelor of Science, Bachelor of Music, Master of Arts, Master of Fine Arts, Master of Public Administration, Master of Natural Science, Master of Science, Doctor of Arts, and Doctor of Philosophy degrees. These curricula provide a rather wide selection which includes the recognized courses in the main fields of knowledge. The general plan is to provide an acquaintance with the basic tools of culture and to explore one or another discipline in greater depth. The bachelor’s degrees which are awarded are considered as evidence of qualification to enter certain occupations directly; in many instances they indicate preparation for more advanced professional study.

Students planning to complete work in a graduate school or professional school, for example, in engineering, law, dentistry or medicine, should pay particular attention to the stated requirements of the institution which they plan to attend to be prepared for admission. If a particular institution has not yet been selected, the student is advised to consult catalogs and seek advice as to the requirements commonly made in such schools.

General Education Requirements

All Associate and Bachelor of Arts and Associate and Bachelor of Science degree programs include a general education component intended to provide a breadth of knowledge in liberal studies as a necessary background for the specialized knowledge acquired in the discipline in which the student majors. Additionally, the General Education Requirements are intended to assist the student in developing the intellectual flexibility necessary for a fulfilling career.

By meeting these requirements, students develop their skills 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 personal, social, and scientific problems; the ability to recognize and assess value structures; and the ability to understand and evaluate the literary and expressive arts.

The general education components for the Associate and Bachelor of Arts and Associate and Bachelor of Science degree programs require students to complete the goal requirements listed under the General Education Requirements section under General Academic Information of this catalog. Students are encouraged to consult with their advisor in determining their curriculum.

Transfer Students

Students transferring to Idaho State University who seek a bachelor’s degree in the College of Arts and Sciences should refer to the section, Policies Governing Fulfillment of General Education Requirements by Transfer Students (under Admissions in General Information).

Major Requirements

In addition to the general education component, all Bachelor of Arts and Bachelor of Science degree programs require a concentration in a departmental major of at least 24 credits, of which at least 16 credits must be in courses numbered 300 and above. The particular course requirements of the departmental majors in the College of Arts and Sciences are outlined under the department headings in the catalog.
interviews to prepare students for the health professional programs application processes.

Pre-Health Advisor: Becky Connell
Committee Members:
Dr. Ralph Baergen, English and Philosophy
Dr. Lyle Castle, Chemistry
Dr. Karl DeJesus, Chemistry
Dr. James Groome, Biological Sciences
Dr. Linda Hatzenbuehler, College of Health Professions
Dr. Cynthia Hill, Economics
Dr. Jeffrey Meldrum, Biological Sciences
Dr. Alex Urfur, Physical Therapy
Dr. Derek Wright, Idaho State University Family Practice Clinic

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:

- **Biol 101, 101L Biology I, and Lab 4 cr**
- **Biol 102, 102L Biology II, and Lab 4 cr**
- **Biol 206 Cell Biology and Lab 4 cr**
- **Chem 111, 111L General Chemistry I, and Lab 5 cr**
- **Chem 112, 112L General Chemistry II, and Lab 4 cr**
- **Chem 301 Organic Chemistry I 3 cr**
- **Chem 302 Organic Chemistry II 3 cr**
- **Chem 303 Organic Chemistry Laboratory I 2 cr**
- **Chem 304 Organic Chemistry Laboratory II 2 cr**

(Departmental prerequisites may apply to some of these courses.)

In addition to completing specified prerequisite courses, most health professional schools require that the pre-professional student obtain practical experience in the health professional field she or he plans to enter, and take a national standardized admission test. Specific information about the national exams and acceptable practical experiences are included in the sections below.

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 400 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 this practice is in decline, and few applicants matriculate into schools of dentistry or veterinary medicine prior to completion of a bachelor’s degree.

**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](http://www.chirocolleges.org).

**Dentistry**

The Idaho State University courses listed above provide a core for pre-dental requirements of most dental schools. However, some dental schools have additional requirements. The most current admission requirements for each dental school are described on the schools’ websites, which can be accessed through the American Dental Education Association website at [www.adea.org](http://www.adea.org), or by consulting the latest edition of “Medical School Admission Requirements, USA and Canada,” published by the Association of American Medical Colleges (AAMC) website at [www.aamc.org](http://www.aamc.org), by consulting the latest edition of “Medical School Admission Requirements, USA and Canada,” published by the Association of American Medical Colleges (AAMC) website at [www.aamc.org](http://www.aamc.org), or by consulting the latest edition of “Medical School Admission Requirements, USA and Canada,” published by the Association of American Medical Colleges (AAMC) website at [www.aamc.org](http://www.aamc.org).

The undergraduate courses required by most medical schools is the same as described above. However, many medical schools have additional requirements. The most current admission requirements for each medical school are described on the individual schools’ websites, which can be accessed through the Association of American Medical Colleges (AAMC) website at [www.aamc.org](http://www.aamc.org), or by consulting the latest edition of “Medical School Admission Requirements, USA and Canada,” published by the Association of American Medical Colleges (AAMC) website at [www.aamc.org](http://www.aamc.org).

**Cooperative Program with the Creighton University School of Dentistry**

In the fall of 1982, Idaho State University and the Creighton University School of Dentistry implemented a decentralized dental education program, the Idaho Dental Education Program (IDEP). Under this program, up to 8 seats per year at the Creighton University School of Dentistry are reserved for Idaho residents. The first professional year of the dental school program is on the Idaho State University campus in Pocatello. The students then move to the Creighton University School of Dentistry in Omaha, NE for the second, third, and fourth professional years. Idaho residents who wish to be considered for IDEP must apply to Creighton University School of Dentistry and meet all other admission requirements.

**Medicine**

The undergraduate courses required by most medical schools is the same as described above. However, many medical schools have additional requirements. The most current admission requirements for each medical school are described on the individual schools’ websites, which can be accessed through the Association of American Medical Colleges (AAMC) website at [www.aamc.org](http://www.aamc.org), or by consulting the latest edition of “Medical School Admission Requirements, USA and Canada,” published by the Association of American Medical Colleges (AAMC) website at [www.aamc.org](http://www.aamc.org), or by consulting the latest edition of “Medical School Admission Requirements, USA and Canada,” published by the Association of American Medical Colleges (AAMC) website at [www.aamc.org](http://www.aamc.org). A copy of this publication is available in the Pre-health Professions Advising Office. All medical applicants must take the Medical College Admission Test (MCAT), and have shadowed a practicing physician prior to applying to the individual schools of medicine.

**Cooperative Program with the University of Washington School of Medicine**

Idaho residents are eligible for the Washington-Wyoming-Alaska-Montana-Idaho (WWAMI) decentralized medical education program of the University of Washington School of Medicine. Currently, the University of Washington reserves 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.

**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 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](http://www.aavmc.org). Veterinary medicine applicants must take the General Test of the Graduate Record Exam (GRE), and have volunteer experience with a practicing veterinarian prior to applying to the individual schools of veterinary medicine.

Idaho residents should be aware that a long term agreement has been reached among the states of Washington, Oregon, and Idaho (WOI) to share responsibility for the curriculum and program at the Washington State University College of Veterinary Medicine. The WOI program gives admissions preference to 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.

**Podiatric Medicine**

The undergraduate courses listed above are required by most podiatric medical schools. However, some podiatric medical schools may have additional requirements. The most current admission requirements for podiatric medical schools are described on the schools’ websites, which can be accessed through the American Association of Colleges of Podiatric Medicine website at [www.aacpm.org](http://www.aacpm.org) or by consulting the Pre-health Advisor. All podiatric 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.

**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](http://www.aavmc.org). Veterinary medicine applicants must take the General Test of the Graduate Record Exam (GRE), and have volunteer experience with a practicing veterinarian prior to applying to the individual schools of veterinary medicine.

Idaho residents should be aware that a long term agreement has been reached among the states of Washington, Oregon, and Idaho (WOI) to share responsibility for the curriculum and program at the Washington State University College of Veterinary Medicine. The WOI program gives admissions preference to 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.

**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)
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. David Adler, Political Science
Dr. Thomas Hale, History
Dr. Bruce Loeb, Communication and Rhetorical Studies
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. Students in the General Studies program must complete all of the General Education goals (including 10A and 10B) as a program requirement. See the Assistant Dean of the College of Arts and Sciences for advising in this program.

A student’s BAGS program must include approved coursework from these areas:
- a) English composition;
- b) speech;
- c) mathematics;
- d) biological science and laboratory;
- e) physical science and laboratory;
- f) fine arts (arts, dance, film, music, theater);
- g) literature;
- h) philosophy;
- i) U.S. history;
- j) non-U.S. history or culture;
- k) foreign language;
- l) economics or political science;
- m) anthropology, psychology, or sociology.

The BAGS advisor approves these courses. Students may use courses they have taken to satisfy General Education goals to meet these additional program requirements.

Upper division courses - At least 48 credits of Arts and Sciences courses are required, but not more than a total of 40 credits may be earned in any one subject field. Coursework graded P/NP or S/U must be approved in advance.

Electives - Courses from all across the university may be utilized to complete the 128 credit hours required for graduation.

American Studies Program
Director and Professor: J. Attebery (English)

Mission
The American Studies program provides students with the opportunity to examine American culture, literature, institutions, and history through the combined perspectives and methods of the humanities, fine arts, and social sciences. Graduates can find their places in many fields that require interdisciplinary skills and knowledge: journalism, politics, publishing, social services, or writing and editing. Graduates may choose to pursue further professional training in graduate programs in American Studies or in a discipline or professional area emphasized within the option they choose for the major.

The major’s “American Cultures” and “America in the World” thematic tracks enable students to minor in one of the College of Arts and Sciences’ interdisciplinary minors or in English, history, or political science. Students may also choose a special option, in which they design a thematic track in consultation with the American Studies director. Special option tracks might be possible, for example, in topics such as ethnic studies, regionalism, social groups, popular culture, political processes, health issues, local history and museology, environmental history, or the arts. Students are encouraged to consult with the American Studies director to design programs that meet personal aspirations.

Associate of Arts in General Studies
This degree requires completion of the following program:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>All of the General Education Goals (10A and 10B)</td>
<td>37 - 53*</td>
</tr>
<tr>
<td>Additional lower division courses in the humanities</td>
<td>6 cr</td>
</tr>
<tr>
<td>Additional lower division courses in the social sciences</td>
<td>6 cr</td>
</tr>
<tr>
<td>Electives (lower division)</td>
<td>0 - 15 cr</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>64 cr</strong></td>
</tr>
</tbody>
</table>

* The number of credits required for the General Education Requirements varies depending on the student's performance on proficiency or placement examinations in English, foreign languages, or mathematics.

Admission to Major Status
Students desiring to major in American Studies must have satisfied the following:

1. General Education Goals 1, 2, and 3 in their entirety;
2. AMST 200 with a C or better; and
3. an overall GPA of 2.5 or better.
Bachelor of Arts in American Studies

Requirements

In addition to the requirements for a Bachelor of Arts degree in the College of Arts and Sciences, American Studies majors will complete required core courses (15 credits), disciplinary methods courses (9 credits), and a thematic, special, or general option of at least 24 credits. Thematic options also satisfy an interdisciplinary minor or a minor in a discipline. Some of the thematic options require completion of particular disciplinary methods courses from the list below; these are labeled “Required Disciplinary Methods Course Choices.”

Required Courses (15 cr)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMST 200</td>
<td>Introduction to American Studies</td>
<td>3 cr</td>
</tr>
<tr>
<td>AMST 403</td>
<td>Senior Project</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 277 or 278</td>
<td>Survey of American Literature I or II</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIST 118</td>
<td>U.S. History and Culture</td>
<td>3 cr</td>
</tr>
<tr>
<td>POLS 101</td>
<td>Introduction to American Government</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Disciplinary Methods Courses (9 cr)

Consistent with your choice (below) of the thematic option track if selecting the thematic option, select three courses from three of the following eight groups.

1. Fine Arts
   - ART 103 Creative Process 3 cr
   - ART/MC 210 History and Appreciation of Photography 3 cr
   - DANC 105 Survey of Dance 3 cr
   - MUSC 106 American Music 3 cr
   - THEA 101 Appreciation of Drama 3 cr

2. Literature
   - ENGL 211 Introduction to Literary Analysis 3 cr

3. Language Studies
   - ANTH/ENGL/LANG 107 Nature of Language 3 cr
   - ENGL 280 Grammar and Usage 3 cr
   - ENGL 281 Introduction to Language Studies 3 cr

4. Communication
   - M C 119 Introduction to Mass Media 3 cr
   - COMM 208 Group Communication 3 cr
   - COMM 254 Organizational Communication 3 cr

5. History
   - HIST 291 The Historian’s Craft 3 cr

6. Women Studies
   - W S 201 Introduction to Women Studies 3 cr

7. Social Sciences: Culture and Society
   - ANTH 203 Introduction to Archaeology 3 cr
   - ANTH 230 Introduction to Biological Anthropology 3 cr

8. Social Sciences: Economics and Politics
   - ECON 100 Economic Issues 3 cr
   - ECON 201 Principles of Macroeconomics 3 cr
   - ECON 202 Principles of Microeconomics 3 cr
   - POLS 202 Introduction to Politics 3 cr
   - POLS 221 Introduction to International Relations 3 cr

American Cultures Track 1, American Literature in Context (24 cr) (includes a Minor in English)

Required Disciplinary Methods Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH/ENGL/LANG 107</td>
<td>Nature of Language</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 211</td>
<td>Introduction to Literary Analysis</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Required Course:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 301</td>
<td>Writing About Literature</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Plus four of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH/ENGL 367</td>
<td>Language in the United States</td>
<td>3 cr</td>
</tr>
<tr>
<td>ANTH/ENGL g453</td>
<td>American Indian Literature</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 277 or 278</td>
<td>Survey of American Literature I or II</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 353</td>
<td>The West in American Literature</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 356</td>
<td>Ethnicity in Literature</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL g480</td>
<td>Varieties of American English</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Upper-division ENGL period or genre courses with an American literature emphasis (chosen in consultation with Director of American Studies)

Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 238</td>
<td>Peoples and Cultures of the New World</td>
<td>3 cr</td>
</tr>
<tr>
<td>ANTH 239</td>
<td>Latino Peoples and Cultures</td>
<td>3 cr</td>
</tr>
<tr>
<td>ANTH g452</td>
<td>American Indian Verbal Arts</td>
<td>3 cr</td>
</tr>
<tr>
<td>ANTH/HIST 258</td>
<td>Native American History*</td>
<td>3 cr</td>
</tr>
<tr>
<td>ANTH/POLS g478</td>
<td>Federal Indian Law</td>
<td>3 cr</td>
</tr>
<tr>
<td>ART g424</td>
<td>Tribal Governance</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIST 251</td>
<td>Latin America*</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIST 252</td>
<td>East Asian History*</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIST 254</td>
<td>Middle Eastern Civilization*</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIST 255</td>
<td>African History and Culture*</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIST 307</td>
<td>Early North America</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIST g435</td>
<td>Colonial Frontiers</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Plus 2 additional approved upper-division American Indian Studies courses 6 cr

American Cultures Track 2

American Indian Studies (27 cr) (includes a Minor in American Indian Studies)

Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 200</td>
<td>General Anthropology</td>
<td>3 cr</td>
</tr>
<tr>
<td>ANTH 238</td>
<td>People and Cultures of the New World</td>
<td>3 cr</td>
</tr>
<tr>
<td>ANTH g466</td>
<td>Current Issues</td>
<td>3 cr</td>
</tr>
<tr>
<td>ANTH g476</td>
<td>Seminar in American Indian Studies</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Plus one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH/HIST 258</td>
<td>Native American History</td>
<td>3 cr</td>
</tr>
<tr>
<td>ANTH/POLS g476</td>
<td>Federal Indian Law</td>
<td>3 cr</td>
</tr>
<tr>
<td>ANTH g464</td>
<td>Survey of American Indian Languages</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Approved American Indian language course* 3 cr

*minimum of one 3-credit course

Contextual Electives:

Choose two courses from the following, with at least one course being upper-division:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH/ENGL g490</td>
<td>Topics in Folklore</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 353</td>
<td>The West in American Literature</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 356</td>
<td>Ethnicity in Literature</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIST 251</td>
<td>Latin America</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIST 307</td>
<td>Early North America</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIST g421</td>
<td>Federal Indian Relations</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIST g435</td>
<td>Colonial Frontiers in America and Africa</td>
<td>3 cr</td>
</tr>
<tr>
<td>SOC 248</td>
<td>Social Diversity</td>
<td>3 cr</td>
</tr>
<tr>
<td>SOC 366</td>
<td>The Community</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

American Cultures Track 3

American Languages (32 cr) (includes a Minor in Linguistics)

Required Disciplinary Methods Courses:

--for Area Studies and Communications/Rhetoric:
   - ANTH/ENGL/LANG 107 Nature of Language 3 cr

--for Communications/Rhetoric:
   - M C 119 Introduction to Mass Media 3 cr

Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH/ENGL 367</td>
<td>Language in the United States</td>
<td>3 cr</td>
</tr>
<tr>
<td>ANTH g454</td>
<td>Survey of American Indian Languages</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 281</td>
<td>Introduction to Language Studies</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL g480</td>
<td>Varieties of American English</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

One year of a foreign language in addition to the 8 credits of foreign language required under General Education General Education 108B 8 cr

Plus one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH/ENGL/LANG g455</td>
<td>Introduction to Phonetics</td>
<td>3 cr</td>
</tr>
</tbody>
</table>
American Cultures Track 4  
The American West (24 cr)  
(include a Minor in History)

The American Studies Program recommends that students taking this track consider taking Spanish or Shoshoni for Goal 10B.

Required Disciplinary Methods Course:
HIST 291 The Historian's Craft 3 cr

Plus three of the following:
At least one must be HIST 101 or 102.
HIST 101 Foundations of Europe 3 cr
HIST 102 Modern Europe 3 cr
HIST 251 Latin America 3 cr
HIST 252 East Asian History 3 cr
HIST 254 Middle Eastern Civilization 3 cr
HIST 255 African History and Culture 3 cr

Plus two of the following:
HIST 421 Federal Indian Relations 3 cr
HIST 423 Idaho History 3 cr
HIST 425 Women in the North American West 3 cr
HIST 427 The North American West 3 cr
GEOL/HIST/POLS 471 Historical Geography of Idaho 3 cr

Contextual Electives
Choose three courses from the following, at least two must be upper-division:
ANTH 238 Peoples and Cultures of the New World 3 cr
ANTH 239 Latino Peoples and Cultures 3 cr
ANTH/ENGL 453 American Indian Literature 3 cr
ANTH/HIST 258 Native American History 3 cr
ENGL 353 The West 3 cr
ENGL 435 in American Literature 3 cr
HIST 435 Colonial Frontiers in America and Africa 3 cr

* (only those offerings focusing on western peoples)

American Cultures Track 5  
Gender in America (24 cr)  
(include a Minor in Women Studies)

Required Disciplinary Methods Course:
W S 201 Introduction to Women Studies 3 cr

Required Course
W S 401 Feminist Thought 3 cr

Plus at least two of the following:
HIST 425 Women in the North American West 3 cr
SOC 321 Families in American Society 3 cr

Plus two courses, totaling at least 6 credits, from the following:
ANTH 215 Anthropology of Gender 3 cr
COMM 440 Gender and Communication 3 cr
ENGL 445 Human Sexuality and Health Education 2 cr
HIST 405 Women in History 3 cr
SOC 250 Women, Crime and Corrections 3 cr
W S 459 Internship 1-6 cr
W S 461 Independent Study 1-3 cr

Other courses approved semester-by-semester for the Minor in Women Studies

Contextual Electives
Choose three courses, two being upper-division, from the following:
ENGL 328 Gender in Literature 3 cr
HIST 301 Early North America 3 cr
HIST 308 Industrialization and Reform in the United States 3 cr
HIST 309 Modern United States 3 cr
HIST 427 North American West 3 cr
ENGL 490 Topics in Folklore 3 cr
SOC 248 Social Diversity 3 cr

American Cultures Track 6  
American Folk Cultures (24 cr)  
(include a Minor in Folklore)

Required Disciplinary Methods Course:
ANTH/ENGL 212 Introduction to Folklore/Oral Tradition 3 cr

Choose 15 credits from:

ANTH 301 Introduction to Shoshoni Folklore 3 cr
ANTH 404 Material Culture Analysis 3 cr
ANTH 449 Methods and Techniques of Ethnographic Field Research 3 cr
ANTH 452 American Indian Verbal Arts 3 cr
ANTH 472 Native American Arts 3 cr
ANTH/ENGL 490 Topics in Folklore 3 cr
ENGL 492 Folklore and Literature 3 cr

Plus 9 credits in course work related to cultural media or a culture area, approved by the American Studies Committee and Director of American Studies.

American in the World Track 1  
America and World Affairs (24 cr)  
(include a Minor in Political Science)

Required Disciplinary Methods Course:
POLS 202 Introduction to Politics 3 cr

Required Courses:
POLS 221 Introduction to International Relations 3 cr
POLS 326 Recent American Foreign Policy 3 cr
POLS 331 Comparative Politics: Framework for Analysis 3 cr

Plus two of the following:
POLS 425 Topics in International Politics 3 cr
POLS 433 Politics of Developing Nations 3 cr
POLS 434 Terrorism and Political Violence 3 cr

Contextual Electives
Choose three of the following, with no two in the same discipline:
ANTH 239 Latino Peoples and Cultures 3 cr
ANTH 423 Anthropology of International Health 3 cr
ECON 334 International Economics 3 cr
ECON 472 Comparative Economic Systems 3 cr
HIST 435 Colonial Frontiers in America and Africa 3 cr
HIST 460 The Global Hispanic Monarchy 3 cr
HIST 474 Islam and Nationalism in the Modern World 3 cr
HIST 429 Foreign Relations Since 1900 3 cr
HIST 430 Global Environmental History 3 cr

America in the World Track 2  
America in World History (24 cr)  
(include a Minor in History)

Required Disciplinary Methods Course:
HIST 291 The Historian's Craft 3 cr

Three of the following:
At least one must be HIST 101 or 102.
HIST 101 Foundations of Europe 3 cr
HIST 102 Modern Europe 3 cr
HIST 251 Latin America 3 cr
HIST 252 East Asian History 3 cr
HIST 254 Middle Eastern Civilization 3 cr
HIST 255 African History and Culture 3 cr

Plus two of the following:
HIST 301 Early North America 3 cr
HIST 308 Industrialization and Reform in the United States 3 cr
HIST 427 North American West 3 cr
HIST 435 Colonial Frontiers in America and Africa 3 cr
HIST 460 The Global Hispanic Monarchy 3 cr
HIST 474 Islam and Nationalism in the Modern World 3 cr

Plus three of the following:
No more than two may be from the same discipline.
ANTH 423 Anthropology of International Health 3 cr
ART 434 Twentieth Century Art 3 cr
ECON 334 International Economics 3 cr
ECON 472 Comparative Economic Systems 3 cr
POLS 326 Recent American Foreign Policy 3 cr
POLS 331 Comparative Politics: Framework for Analysis 3 cr
POLS 406 Intergovernmental Relations 3 cr
POLS 425 Topics in International Politics 3 cr
POLS 433 Politics of Developing Nations 3 cr
POLS 434 Terrorism and Political Violence 3 cr

Contextual Electives
Choose three of the following, with title: Human Rights 1-3 cr:
ANTH 239 Latino Peoples and Cultures 3 cr
ANTH 423 Anthropology of International Health 3 cr
ECON 334 International Economics 3 cr
ECON 472 Comparative Economic Systems 3 cr
HIST 435 Colonial Frontiers in America and Africa 3 cr
HIST 460 The Global Hispanic Monarchy 3 cr
HIST 474 Islam and Nationalism in the Modern World 3 cr
HIST 429 Foreign Relations Since 1900 3 cr
HIST 430 Global Environmental History 3 cr

America in the World Track 2  
America in World History (24 cr)  
(include a Minor in History)

Required Disciplinary Methods Course:
HIST 291 The Historian's Craft 3 cr

Three of the following:
At least one must be HIST 101 or 102.
HIST 101 Foundations of Europe 3 cr
HIST 102 Modern Europe 3 cr
HIST 251 Latin America 3 cr
HIST 252 East Asian History 3 cr
HIST 254 Middle Eastern Civilization 3 cr
HIST 255 African History and Culture 3 cr

Plus two of the following:
HIST 301 Early North America 3 cr
HIST 308 Industrialization and Reform in the United States 3 cr
HIST 427 North American West 3 cr
HIST 435 Colonial Frontiers in America and Africa 3 cr
HIST 460 The Global Hispanic Monarchy 3 cr
HIST 474 Islam and Nationalism in the Modern World 3 cr

Plus three of the following:
No more than two may be from the same discipline.
ANTH 423 Anthropology of International Health 3 cr
ART 434 Twentieth Century Art 3 cr
ECON 334 International Economics 3 cr
ECON 472 Comparative Economic Systems 3 cr
POLS 326 Recent American Foreign Policy 3 cr
POLS 331 Comparative Politics: Framework for Analysis 3 cr
POLS 406 Intergovernmental Relations 3 cr
POLS 425 Topics in International Politics 3 cr
POLS 433 Politics of Developing Nations 3 cr
POLS 434 Terrorism and Political Violence 3 cr

Contextual Electives
Choose three of the following, with title: Human Rights 1-3 cr:
ANTH 239 Latino Peoples and Cultures 3 cr
ANTH 423 Anthropology of International Health 3 cr
ECON 334 International Economics 3 cr
ECON 472 Comparative Economic Systems 3 cr
HIST 435 Colonial Frontiers in America and Africa 3 cr
HIST 460 The Global Hispanic Monarchy 3 cr
HIST 474 Islam and Nationalism in the Modern World 3 cr
HIST 429 Foreign Relations Since 1900 3 cr
HIST 430 Global Environmental History 3 cr
America in the World Track 3
Western Hemisphere Studies (24-26 cr) (includes a Minor in Latino/a Studies)

Required Disciplinary Methods Course:
ANTH 250 Introduction to Sociocultural Anthropology 3 cr

Required Courses:
ANTH 239 Latino Peoples and Cultures 3 cr
HIST 251 Latin America 3 cr
SPAN 201, 202 Intermediate Spanish I and II 8 cr OR
SPAN 301, 302 Spanish Conversation and Composition I and II 6 cr OR
Other 6-credit option with permission of Latino Studies Director

Plus two of the following:
ANTH g424 Ethnomedicine of Latin America 3 cr
ANTH g487 Ethnographic Field School, when offered in Mexico, Guatemala, and other Latin American countries 1-6 cr
ANTH g489 Special Topics in American Indian Studies, when offered with title Latin American Indigenous Resource Management 3 cr
HIST g450 Golden Age Castile 3 cr
HIST g460 The Global Hispanic Monarchy 3 cr
SPAN 342 Survey of Latin American Literature and Civilization 3 cr
SPAN g462 Early Twentieth Century Spanish American Literature 3 cr

Contextual Electives
Choose three of the following courses, with no more than one from any one discipline.

ANTH/ENGL g453 American Indian Literature 3 cr
ANTH/POLS g478 Federal Indian Law 3 cr
ANTH/POLS g479 Tribal Governments 3 cr
ENGL 333 The West in American Literature 3 cr
ENGL 356 Ethnicity in Literature 3 cr
ENGL 367 Language in the United States 3 cr
ENGL g480 Special Topics in American English 3 cr
HIST g307 Early North America 3 cr
HIST g308 Industrialization and Reform in the United States 3 cr
HIST g309 Modern United States 3 cr
HIST g421 Federal Indian Relations 3 cr
HIST g425 Women in the North American West 3 cr
HIST g427 North American West 3 cr
POLS 326 Recent American Political Parties and Interest Groups 3 cr
POLS g403 The Presidency 3 cr
POLS g404 The Legislative Process 3 cr
POLS g411 American Political Theory 3 cr
POLS g442 Constitutional Law 3 cr

B. Special Option (24 cr)
For their final 24 credits toward the Bachelor of Arts in American Studies, students may write a proposal for a thematic track of their own design, including at least 15 upper-division credits, in accordance with their academic interests and career goals. The proposal must include a rationale and a list of courses. These will be subject to review and approval of the American Studies Committee and Director of American Studies.

C. General Option (24 cr)
For their final 24 credits toward the Bachelor of Arts in American Studies, students may choose a general interdisciplinary approach by taking courses with strong American content from the following four groupings. It is strongly recommended that students choosing this option add course work to minor in one of these disciplines.

1. Two courses from Anthropology:
ANTH g414 New World Archaeology 3 cr
ANTH g452 American Indian Verbal Arts 3 cr
ANTH g454 Survey of American Indian Languages 3 cr
ANTH g466 Current Issues in Indian Country 3 cr
ANTH g472 Native American Arts 3 cr
ANTH g474 Special Topics in American Indian Studies 3 cr

2. Two Courses from English and Fine Arts:
ANTH/ENGL g453 American Indian Literature 3 cr
ART/M C 210 History and Appreciation of Photography 3 cr
ART g424 Twentieth Century Art 3 cr
COMM g442 American Rhetoric and Public Address 3 cr
ENGL 353 The West in American Literature 3 cr
ENGL 356 Ethnicity in Literature 3 cr
ENGL 357 Language in the United States 3 cr
ENGL g480 Special Topics in American English 3 cr
ENGL g480 Upper-division ENGL Period or Genre Literature courses chosen from semester offerings with American emphasis (subject to review of American Studies director)
MC 290 American Broadcasting 3 cr
MUSC 106 American Music 3 cr
THEA g420 American Theatre History 3 cr

3. Two courses from History:
HIST g307 Early North America 3 cr
HIST g308 Industrialization and Reform in the United States 3 cr
HIST g309 Modern United States 3 cr
HIST g317 Archaeology and History of Southern Idaho 3 cr
HIST g421 Federal Indian Relations 3 cr
HIST g423 Idaho History 3 cr
HIST g425 Women in the North American West 3 cr
HIST g427 North American West 3 cr
HIST g435 Colonial Frontiers in America and Africa 3 cr
HIST g471 Historical Geography of Idaho 3 cr

4. Two courses from Political Science
ANTH/POLS g478 Federal Indian Law 3 cr
ANTH/POLS g479 Tribal Governments 3 cr
POLS 308 State and Local Government 3 cr
POLS 326 Recent American Foreign Policy 3 cr
POLS g401 Political Parties and Interest Groups 3 cr
POLS g403 The Presidency 3 cr
POLS g404 The Legislative Process 3 cr
POLS g411 American Political Theory 3 cr
POLS g442 Constitutional Law 3 cr

Minor in American Studies

The American Studies minor is designed to give the student majoring in another field an interdisciplinary knowledge of American culture. The minor requires 21 credits:

AMST 200 Introduction to American Studies 3 cr
ENGL 277 or 278 Survey of American Literature I or II 3 cr
HIST 118 U.S. History and Culture 3 cr
POLS 101 Introduction to American Government 3 cr
Three upper-division courses with strong American content, approved by the American Studies program director 9 cr

American Studies Courses

AMST 100 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 200 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 9 of the General Education Requirements. RI

AMST 348 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 403 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 410 Internship 1-6 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

College of Arts and Sciences
Department of Anthropology

Chair and Professor: Lohse
Research Professor: Maschner
Professors: Holmer, Loether
Associate Professor: Cartwright
Assistant Professors: Dudgeon, Peterson, Reedy-Maschner
Native Language Instructor: Gould
Assistant Lecturers: Petersen, Thomas
Research Affiliate Faculty: Dean, Hansen, Woods
Emeritus: Stocks

Mission
The mission of the Department of Anthropology is to research and teach about human behavior in a holistic and respectful manner. Anthropology consists of sub-fields that specialize in the human past, human biology and evolution, language, and biocultural behavior. Anthropology provides cross-cultural, 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 sub-disciplines in the field, including archaeology, biological anthropology, anthropological linguistics, and sociocultural anthropology. In addition, the department offers minors in Anthropology, American Indian Studies, Latino Studies, and Linguistics.

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 an appropriate level.

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 appropriate to education level.

Learning Outcomes – Students in the Senior Seminar will demonstrate the following competencies based on the above objectives:

1. Apply knowledge of anthropological methods, approaches, and modes of explanation to contemporary social issues.

2. Use theory to formulate a testable explanation for a given cultural behavior.

3. Select and perform quantitative and qualitative analytical techniques at a basic level.

4. Carry out a research project using cross-cultural or diachronic (or combination of the two) comparative methods.

5. Write a competent senior research project.

Bachelor of Arts in Anthropology

Beyond the general university requirements, a student seeking Bachelor of Arts degree with a major in anthropology must complete at least 48 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.

Required Lower Division Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 107</td>
<td>The Nature of Language</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 230</td>
<td>Introduction to Archaeology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 232</td>
<td>Introduction to Biological Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 237</td>
<td>Peoples and Cultures of the Old World</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 238</td>
<td>Peoples and Cultures of the New World</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 239</td>
<td>Latino Peoples and Cultures</td>
<td>3</td>
</tr>
<tr>
<td>MATH 253</td>
<td>Introduction to Statistics</td>
<td>3</td>
</tr>
<tr>
<td>ELEC 100</td>
<td>General Humanities</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL: 15 cr

Required Upper Division Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH g401</td>
<td>History and Theory of Sociocultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH g403</td>
<td>Method and Theory in Archaeology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH g430</td>
<td>Human Origins and Diversity</td>
<td>3</td>
</tr>
<tr>
<td>ANTH g450</td>
<td>Introduction to Socio-linguistic Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH g455</td>
<td>Linguistic Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ANTH g458</td>
<td>Historical Linguistics</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 492</td>
<td>Senior Seminar</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 495</td>
<td>Department Colloquium</td>
<td>1</td>
</tr>
<tr>
<td>IN ADDITION:</td>
<td>Upper Division Anthropology</td>
<td>16</td>
</tr>
<tr>
<td>ENGL 307</td>
<td>Professional and Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>MATH 253</td>
<td>Introduction to Statistics</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL: 15 cr

Minor in American Indian Studies

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH/HIST 258</td>
<td>Native American History</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 100</td>
<td>General Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 238</td>
<td>People and Cultures of the New World</td>
<td>3</td>
</tr>
<tr>
<td>ANTH g421</td>
<td>Federal Indian Relations</td>
<td>3</td>
</tr>
<tr>
<td>ANTH g466</td>
<td>Current Issues in Indian Country</td>
<td>3</td>
</tr>
<tr>
<td>ANTH g476</td>
<td>Seminar in American Indian Studies</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL: 21 cr

Plus ONE of the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH/HIST 258</td>
<td>Native American History</td>
<td>3</td>
</tr>
<tr>
<td>ANTH g452</td>
<td>American Indian Verbal Arts</td>
<td>3</td>
</tr>
<tr>
<td>ANTH g454</td>
<td>Survey of American Indian Languages</td>
<td>3</td>
</tr>
<tr>
<td>IN ADDITION:</td>
<td>Approved American Indian Language course</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL: 21 cr

Minor in Anthropology

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 107</td>
<td>The Nature of Language</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 203</td>
<td>Introduction to Archaeology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 205</td>
<td>Introduction to Biological Anthropology Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>ANTH 230</td>
<td>Introduction to Biological Anthropology</td>
<td>1</td>
</tr>
<tr>
<td>ANTH 232</td>
<td>Introduction to Sociocultural Anthropology Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>ANTH 237</td>
<td>Peoples and Cultures of the Old World</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 238</td>
<td>Peoples and Cultures of the New World</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 239</td>
<td>Latino Peoples and Cultures</td>
<td>3</td>
</tr>
<tr>
<td>IN ADDITION:</td>
<td>Upper Division Anthropology Courses</td>
<td>9</td>
</tr>
</tbody>
</table>

TOTAL: 23 cr

Minor in Latino Studies

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 250</td>
<td>Introduction to Sociocultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 239</td>
<td>Contemporary Latinos in the U.S.</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 239</td>
<td>Peoples of Mexico Through Film</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 239</td>
<td>Culture South of the Border</td>
<td>3</td>
</tr>
<tr>
<td>HIST 251</td>
<td>Latin America</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL: 15 cr
### Minor in Linguistics

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH/LANG/ENGL 107</td>
<td>Nature of Language</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 281</td>
<td>Introduction to Language Studies</td>
<td>3 cr</td>
</tr>
<tr>
<td>ANTH/LANG g455</td>
<td>Introduction to Phonetics</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 485</td>
<td>Linguistic Analysis</td>
<td>OR</td>
</tr>
<tr>
<td>PHIL g410</td>
<td>Philosophy of Language</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH/ENGL 367</td>
<td>Language in the United States</td>
<td>3 cr</td>
</tr>
<tr>
<td>ANTH g450</td>
<td>Introduction to Socio-linguistics</td>
<td>3 cr</td>
</tr>
<tr>
<td>ANTH g452</td>
<td>Survey of American Indian Languages</td>
<td>3 cr</td>
</tr>
<tr>
<td>ANTH/LANG g455</td>
<td>Introduction to Phonetics</td>
<td>3 cr</td>
</tr>
<tr>
<td>ANTH/LANG g456</td>
<td>Introduction to Phonology and Morphology</td>
<td>3 cr</td>
</tr>
<tr>
<td>ANTH g458</td>
<td>Historical Linguistics</td>
<td>3 cr</td>
</tr>
<tr>
<td>ANTH g459</td>
<td>Linguistic Field Methods</td>
<td>3 cr</td>
</tr>
<tr>
<td>ANTH/LANG 457</td>
<td>Survey of Indo-European Languages</td>
<td>3 cr</td>
</tr>
<tr>
<td>ANTH/ENGL/LANG 484</td>
<td>Topics in Linguistics</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 280</td>
<td>Grammar and Usage</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL g481</td>
<td>Advanced Grammar</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL g483</td>
<td>Varieties of American English</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL g485</td>
<td>Linguistic Analysis</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL g486</td>
<td>Old English</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL g487</td>
<td>History of the English Language</td>
<td>3 cr</td>
</tr>
<tr>
<td>LANG g488</td>
<td>Comparative Philology</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHIL 201</td>
<td>Introduction to Logic</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

**PHIL g410 Philosophy of Language 3 cr* in addition to the 8 credit hours of foreign language required under General Education Goal 10B.

### Anthropology Courses

**ANTH 100 General Anthropology 3 credits.**
Introduction to fields of anthropology: physical anthropology, archaeology, linguistics, and ethnology, and to biological and cultural development of humans. Satisfies Goal 12 of the General Education Requirements. F, S, Su

**ANTH 101 Elementary Shoshoni I 4 credits.**
Basic communication skills and grammar of Shoshoni and introduction to Shoshoni culture. Cross-listed as SHOS 101. Satisfies Goal 10B of the General Education Requirements. F

**ANTH 102 Elementary Shoshoni II 4 credits.**
Furthering basic communication skills and grammar of Shoshoni and introduction to Shoshoni culture. Cross-listed as SHOS 102. Satisfies Goal 10B of the General Education Requirements. S

**ANTH 107 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. Cross-listed as ENGL 107 and LANG 107. S

**ANTH 201 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 201. F

**ANTH 202 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 202. S

**ANTH 203 Introduction to Archaeology 3 credits.**
Introduction to basic methods, data and concepts of archaeology. S

**ANTH 205 Introduction to Archaeology Laboratory 1 credit.**
Exercises and experiments introducing the methods and techniques of archaeology. COREQ: ANTH 203. S

**ANTH 206 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 367 Language in the United States 3 credits.**
A survey of the languages of the United States, including immigrant languages, and ethnic and regional varieties of English along with the social and political aspects of American language use. Cross-listed as ENGL 367. PREREQ: ANTH/LANG/ENGL 107. D

*When offered in Mexico, Guatemala and other Latin American countries.
ANTH g401 History and Theory of Sociocultural 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 250 or permission of instructor. S

ANTH g402 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 203, ANTH 250, ANTH 230, BIOL 100 or permission of instructor. D

ANTH g403 Method and Theory in Archaeology 3 credits. History of the development of current methods and theory in archaeology and contemporary applications. PREREQ: ANTH 203 or permission of instructor. F

ANTH g404 Material Culture Analysis 3 credits. Methods and analyses used in archaeology and anthropology to understand the relationship between objects and culture. PREREQ: ANTH 203 or permission of instructor. COREQ: ANTH g405. D

ANTH g405 Analytical Techniques Laboratory 1 credit. Analytical techniques laboratory to accompany ANTH g404. Students will complete an assigned project in material culture analysis. PREREQ: ANTH 203 or permission of instructor. COREQ: ANTH g404. D

ANTH g406 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 g407 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 g408 Special 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. S

ANTH g409 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 g410 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 203 or permission of instructor. D, W

ANTH g413 Old World Archaeology 3 credits. Prehistory of the Old World. Precise areal focus and periods may vary. Includes both theory and exposition. PREREQ: ANTH 203 or permission of instructor. D

ANTH g414 New World Archaeology 3 credits. Examination of the prehistory of the Americas with emphasis on the North American Continent. PREREQ: ANTH 203 or permission of instructor. D

ANTH g423 Anthropology of International Health 3 credits. Exploration of critical health issues that exist in the world today from an anthropological perspective. Diseases of poverty/development, emerging infectious diseases, medical tourism and the political arena of international health programs. S

ANTH g424 Ethnomedicine of Latin America 3 credits. Examines traditional medical systems and folk illnesses in order to better understand the underlying logics of healing that exist in Latino populations worldwide. Shamanism, witchcraft, spiritual healing and biomedicine will be addressed. F

ANTH g430 Human Origins and Diversity 3 credits. Examines human origins, adaptations and biological diversity within the context of evolutionary processes. PREREQ: ANTH 230 or permission of instructor. S

ANTH g432 Human Osteology 3 credits. Provides a working knowledge of skeletal anatomy, primarily focusing on identification of individual bones. Other topics include: osteogenesis, pathologies, and applications of knowledge and techniques. PREREQ: ANTH 230 and 232 or permission of instructor. D

ANTH g433 Survey of Living Primates 3 credits. Anatomy, behavioral ecology, and adaptive diversity of extant non-human primates, including a history of primate/human interactions. PREREQ: ANTH 230 and ANTH 232, or BIOL 101 and BIOL 102; or permission of instructor. AF

ANTH g435 Survey of Fossil Primates 3 credits. Evolution and adaptations of primates from the earliest primates to the enigmatic giants of the Pleistocene. PREREQ: ANTH 230, ANTH 232, or BIOL 101, and BIOL 102; or permission of instructor. AF

ANTH g437 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 g439, GEOL g439. PREREQ: Permission of instructor. AS

ANTH g449 Methods and Techniques of Ethnographic Field Research 3 credits. Participant observation, field notes, data types, analytical procedures, interviewing skills, oral history, report writing. PREREQ: ANTH 250 or permission of instructor. AF

ANTH g450 Introduction to 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. Cross-listed as ENGL g488. PREREQ: ANTH 107, ENGL 280 or ENGL 281, or permission of instructor. F

ANTH g452 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 107 or permission of instructor. AF

ANTH g453 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. Cross-listed as ENGL g453. PREREQ: Goal 1. R2

ANTH g454 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 107 or permission of instructor. AF

ANTH g455 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. Cross-listed as LANG g455. PREREQ: ANTH/ENGL/LANG 107. D

ANTH g456 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. Cross-listed as LANG g456. PREREQ: ANTH/ENGL/LANG 107. D

ANTH g457 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. Cross-listed as LANG 457. PREREQ: completion of Goal 10B. D

ANTH g458 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 107. AS

ANTH g459 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 456 or permission of instructor. D

ANTH g463 Applied Statistics in Anthropology 3 credits. Practical applications of commonly used statistical analyses in anthropology. PREREQ: MATH 253 or permission of instructor. AF

ANTH g464 Advanced Analytical Methods in Anthropology 3 credits. Examination and practical experience in applying advanced quantitative and qualitative methods and analyses in anthropological research. PREREQ: ANTH g463. AS

ANTH g466 Current Issues in Indian Country 3 credits. Survey of significant issues affecting Indian communities including religious freedom, economic development, judicial systems, treaty rights and environmental regulation. D

ANTH g472 Native American Arts 3 credits. Survey of Native American arts and industries, including prehistoric, ethnographic, and contemporary venues. PREREQ: ANTH 238 and permission of instructor. D
ANTH 474 Special 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 476 Seminar in American Indian Studies 3 credits. Advanced-level course with critical examination, readings, discussion and presentation of selected issues facing American Indians. PREREQ: 9 credits of American Indian Studies or permission of instructor. D

ANTH 487 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 250 and ANTH g489 or permission of instructor. D

ANTH 489 Special 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 490 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 for up to 9 credits with different topics. Cross-listed as ENGL g490. R1

ANTH 491 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 492 Senior Seminar 3 credits. Integration and application of anthropological theories and methods to current research issues. S

ANTH 493 Interdisciplinary Anthropology 3 credits. Rotating review of cross-disciplinary anthropology; psychological, medical, visual, educational, biodiversity conservation. See current class schedule for course titles. May be repeated for up to 6 credits. D

ANTH 494 Visual Anthropology 3 credits. Documentary and ethnographic filmmaking techniques including story structure, interviewing, audio and lighting, camera handling, composition, P0V, and editing. Anthropological critiques of visual representation. Students create their own short film for a final project. May be repeated for up to 6 credits. PREREQ: ANTH 100 or ANTH 250 or permission of instructor. F

ANTH 495 Department Colloquium 1 credit. Presentations of current research issues in Anthropology by faculty and students. S

ANTH 497 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

ANTH 498 Special Topics in Linguistics 3 credits. Rotating topics in different areas of linguistics. Consult current schedule of classes for exact course being taught. May be repeated with different content. Cross-listed as ENGL g484 and LANG g484. PREREQ: ANTH/ENGL/LANG 107 or ENGL 280 or ENGL 281. D

ANTH 485 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 486 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 203 or permission of instructor. Su

Department of Art and Pre-Architecture

Chair and Professor: Kovacs
Professors: Evans, Martin, Warnock
Assistant Professor: Leeuwir, Zielinski
Assistant Lecturer: Popa

Adjunct Faculty: Babcock, Christofferson, Feige, Pirro
Affiliate Faculty: Hanson
Emeriti: Brown, Dial

The primary aim of the art program is to develop the aesthetic awareness and technical proficiency of the individual student in the visual arts. The student who declares an art major can earn either 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 enter into studio artist production. The studio areas offered for concentration are drawing, painting, printmaking, sculpture, weaving, ceramics and jewelry/metals. Additionally, papermaking and special topics courses are available. The art major may concentrate in one studio area or work in several areas. In addition, the program offers a variety of studio and art history courses for university students majoring in other fields.

Students who are working on the B.F.A. have the option of fulfilling Goal 10B as is or substituting with an equivalent amount of hours in humanities classes. Please check with advisor for an approved list of Humanities courses for substitution.

For art majors, Goal 6 of the General Education Requirements must be met with courses outside the Department of Art and Pre-Architecture.

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 higher from completion of the foundation courses (ART 100, 103, 104, 105, and 106). Students who do not have a 3.0 grade point average in these foundation courses may, with the approval of their advisor, appeal for admission as an art major by submitting a portfolio for faculty review. The student should consult his/her advisor for declaration of major forms.

The Department of Art and Pre-Architecture will accept no D or F grades for major and minor course work. Courses with D or F grades, including art electives, must be repeated and a higher grade earned before a student can qualify for graduation with a degree in art. Individual Project courses (ART 385) must be taken in the same medium when being repeated to raise grade.
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 100 Survey of Art 3 cr
- ART 101 History of Western Art I 3 cr
- ART 102 History of Western Art II 3 cr
- ART 103 Creative Process 3 cr
- ART 104 Creative Process 3 cr
- ART 105 Drawing I 3 cr
- ART 106 Drawing II 3 cr
- ART 201 Intermediate Drawing 3 cr
- ART 231 Introduction to Printmaking 3 cr
- ART 241 Introduction to Painting and Composition 3 cr
- ART 251 Introduction to Metals/Jewelry 3 cr
- ART 261 Introduction to Weaving 3 cr
- ART 271 Introduction to Ceramics 3 cr
- ART 281 Introduction to Sculpture 3 cr
- ART 301 Anatomy Drawing and Painting 3 cr
- ART 310 Professional Practice and Display 3 cr
- ART 422 World Arts 3 cr
- ART 423 Nineteenth Century Art 3 cr
- ART 424 Twentieth Century Art 3 cr
- ART 425 Contemporary Art Forms 3 cr
- ART 426 Seminar in Art History 3 cr

TOTAL: 73 cr

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 100 Survey of Art 3 cr
- ART 101 History of Western Art I 3 cr
- ART 102 History of Western Art II 3 cr
- ART 385 Individual Projects (Art History) 3 cr
- ART 422 World Arts 3 cr

Plus 2 of the following:
- ART 423 Nineteenth Century Art 3 cr
- ART 424 Twentieth Century Art 3 cr
- ART 425 Contemporary Art Forms 3 cr
- ART 426 Seminar in Art History 3 cr

TOTAL: 21 cr

Associate of Arts in Art

Students seeking an Associate of Arts degree in Art must complete the following:

- ART 100 Survey of Art 3 cr
- ART 101 History of Western Art I 3 cr
- ART 102 History of Western Art II 3 cr
- ART 103 Creative Process 3 cr
- ART 104 Creative Process 3 cr
- ART 105 Drawing I 3 cr
- ART 106 Drawing II 3 cr

Choose a minimum of one of the following Art electives and additional classes to total 64 credits:
- ART 231 Printmaking 3 cr
- ART 241 Painting 3 cr
- ART 251 Metals/Jewelry 3 cr
- ART 261 Weaving 3 cr
- ART 271 Ceramics 3 cr
- ART 281 Sculpture 3 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.

Art Courses

ART 100 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. Satisfies Goal 6 of the General Education Requirements. F, S, Su

ART 101 History of Western Art I 3 credits. Study of the visual arts from prehistoric to Gothic times and the cultural influences on art forms. Satisfies Goal 6 of the General Education Requirements. F

ART 102 History of Western Art II 3 credits. Study of the visual arts from the Renaissance to the modern era with comparisons of major movements. Satisfies Goal 6 of the General Education Requirements. S

ART 103 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 104 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 103. F, S

ART 105 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 106 Drawing II 3 credits. Continuation of ART 105; refine skills and further explore technical and conceptual approaches to drawing.
ART 201 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 105 and ART 106. S

ART 202 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 201. S


ART 231 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 241 Introduction to Painting and Composition 3 credits. Introduction to methods, materials, and basic concepts of painting. F, S

ART 243 Watercolor 3 credits. Beginning watercolor techniques, color theory, traditional and contemporary subject matter. One field trip required. D

ART 251 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 261 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 271 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 281 Introduction to Sculpture 3 credits. Introduction to various methods and materials of sculpture construction, including additive, subtractive, manipulative, and substitution techniques. F, S

ART 301 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 105 and ART 106 or permission of instructor. F

ART 302 Advanced Anatomy Painting and Sculpture 3 credits. Further work with human form using two and three dimensional format. PREREQ: ART 301 or permission of instructor. F

ART 303 Advanced Painting 3 credits. Course designed to expand the student’s creative range in subject matter and technique. Includes studies in the historical importance of the painting in art. PREREQ: ART 105 and ART 106. S

ART 304 Advanced Printmaking 3 credits. Course designed to expand the student’s creative range in subject matter and technique. Includes studies in the historical importance of the printmaking in art. PREREQ: ART 231. F, S

ART 310 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 331 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 231. F, S

ART 332 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 331. F, S

ART 334 Secondary School Art Methods 3 credits. Practical techniques and philosophical approaches to teaching art in the middle and high schools. PREREQ: 12 hours of studio classes. S

ART 341 Intermediate Painting and Composition I 3 credits. Utilize technical skills from ART 241. Emphasis on work ethic and conceptual investigation. Actively research historical and contemporary artists. PREREQ: ART 241. F, S


ART 343 Intermediate Watercolor 3 credits. Further experiments in opaque and transparent media, variety of supports and styles. One field trip required. PREREQ: ART 243. D

ART 351 Intermediate Metals 3 credits. Experimental work. Individual projects may include stone settings, enameling, angle raising, procedure for hinges, anodizing, repoussé and riveting. PREREQ: ART 251. F, S

ART 352 Intermediate Metals 3 credits. Experimental work. Individual projects may include stone settings, enameling, angle raising, procedure for hinges, anodizing, repoussé and riveting. PREREQ: ART 351. F, S

ART 354 Intermediate Ceramics 3 credits. Individual work. Special projects may include glaze and clay technology, history of ceramic art, work on the potter’s wheel and forming techniques. PREREQ: ART 371. F, S, Su

ART 355 Intermediate Sculpture 3 credits. Further explorations in imagery and development of skills in sculptural media. PREREQ: ART 281. F, S

ART 356 Intermediate Sculpture 3 credits. Further explorations in imagery and development of skills in sculptural media. PREREQ: ART 381. F, S

ART 357 Individual Projects 1-3 credits. Supervised research, experimentation, or creative work in an art history subject or studio area not listed in the regular offerings. Course may be repeated for up to 6 credits. PREREQ: Permission of instructor or Department Chair. F, S

ART 361 Intermediate Weaving 3 credits. Further work on and off loom, fiber structures and dyeing. PREREQ: ART 261. F, S

ART 362 Intermediate Weaving 3 credits. Experimental work on and off loom, fiber structures and dyeing. PREREQ: ART 361. F, S

ART 371 Intermediate Ceramics 3 credits. Individual work. Special projects may include glaze and clay technology, history of ceramic art, work on the potter’s wheel and forming techniques. PREREQ: ART 271. F, S, Su

ART 372 Intermediate Ceramics 3 credits. Individual work. Special projects may include glaze and clay technology, history of ceramic art, work on the potter’s wheel and forming techniques. PREREQ: ART 371. F, S, Su

ART 373 Intermediate Printmaking 3 credits. Individual work. Special projects may include glaze and clay technology, history of ceramic art, work on the potter’s wheel and forming techniques. PREREQ: ART 371. F, S, Su

ART 381 Intermediate Sculpture 3 credits. Further explorations in imagery and development of skills in sculptural media. PREREQ: ART 281. F, S

ART 382 Intermediate Sculpture 3 credits. Further explorations in imagery and development of skills in sculptural media. PREREQ: ART 381. F, S

ART 385 Individual Projects 1-3 credits. Supervised research, experimentation, or creative work in an art history subject or studio area not listed in the regular offerings. Course may be repeated for up to 6 credits. PREREQ: Permission of instructor or Department Chair. F, S

ART 391 Papermaking 3 credits. History, fundamental techniques of Western/Eastern papermaking based on traditional methods. Traditional sheet forming, paper chemistry, pulp preparation, types of nonadhesive book structures, history and terminology of book binding PREREQ: 12 hours studio or permission of instructor. F

ART 401 Advanced Study in Drawing 3 credits. Individualized course-of-study designed to address drawing-specific concerns for the advanced art student. Involves exploration of technical, material, and/or conceptual possibilities inherent to drawing as an independent medium. PREREQ: ART 202. F, S

ART 418 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. Cross-listed as M C 418. D

ART 422 World Arts 3 credits. Study of the art produced in cultures outside the western tradition. Topics include pre-Hispanic art of Mexico, Central and South American art, East Indian art, and the art of Africa south of the Sahara. AS

ART 423 Nineteenth Century Art 3 credits. History of the visual arts from the beginning of the 19th century up to the advent of Expressionism. F

ART 424 Twentieth Century Art 3 credits. History of the visual arts from Expressionism to the present. S

ART 425 Contemporary Art Forms 3 credits. The study of the major developments of art as an expression of contemporary society. Emphasis on art since 1950. PREREQ: ART 423 or ART 424 or permission of instructor. D

ART 426 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 g441 Advanced Painting and Composition II 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 342. F, S

ART g442 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 441. F, S

ART g451 Advanced Metals 3 credits. Experimental work. Individual projects may include plastics, electroplating, electroforming, advanced fabrication or raising techniques. PREREQ: ART 352. F, S

ART g452 Advanced Metals 3 credits. Experimental work. Individual projects may include on-loom and off-loom techniques, dyeing processes, basketry, or multilayered fabrics. PREREQ: ART 362. F, S

ART g461 Advanced Weaving 3 credits. Experimental work. Individual projects may include on-loom and off-loom techniques, dyeing processes, basketry, or multilayered fabrics. PREREQ: ART 461. F, S

ART g471 Advanced Ceramics 3 credits. Individual projects may include ceramic sculpture, mosaics or experimental problems in form and techniques. PREREQ: ART 371 or ART 372. F, S, Su

ART g472 Advanced Ceramics 3 credits. Individual projects may include ceramic sculpture, mosaics or experimental problems in form and techniques. PREREQ: ART 371 or ART 372. F, S, Su

ART g473 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 271 or permission of instructor. D

ART g474 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 371 or permission of instructor. D

ART g481 Advanced Sculpture 3 credits. Experimental work with an emphasis on scale and environmental problems. PREREQ: ART 381. F, S

ART g482 Advanced Sculpture 3 credits. Experimental work with an emphasis on scale and environmental problems. PREREQ: ART g481. F, S

ART g490 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 g491 Advanced Papermaking 3 credits. Further development of topics from ART 391. PREREQ: ART 391 or permission of instructor. F

ART 494 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 g497 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

Pre-Architecture

Affiliate Instructors: Christofferson, Hanson

The practice of architecture requires training in both aesthetic concepts and practical knowledge. The pre-architecture program satisfies both of these needs as well as provides the basis for further professional education.

The basic courses in the sciences, mathematics, and design will serve as a foundation upon which the student may build a professional education and career. The program is designed to facilitate transfer to the professional architecture program at the University of Idaho, leading to the degree of Master of Architecture. The required courses are as nearly as possible identical to those taken at the University of Idaho during the first two years. By following this program, the qualified student may transfer to the University of Idaho without loss of credit. S/he would also be eligible to enter any accredited architecture program. See the current University of Idaho general catalog for further details.

Admission

Students who wish to declare a major in Pre-Architecture must meet the following criteria:

1. Overall grade point average of 2.5.
2. Achieve a grade point average of 3.0 or higher from completion of the following courses: ART 105, ART 106, and ARCH 111.

Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ARCH 111-112</td>
<td>4 cr</td>
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<tr>
<td>ARCH 255-256</td>
<td>6 cr</td>
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<tr>
<td>ARCH 266</td>
<td>3 cr</td>
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<tr>
<td>ART 100</td>
<td>3 cr</td>
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<td>ART 103</td>
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<td>ART 104</td>
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<tr>
<td>ART 105</td>
<td>3 cr</td>
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<tr>
<td>ART 106</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 143</td>
<td>3 cr</td>
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</tbody>
</table>

Upon completion of ARCH 255-256, pre-architecture students are required to display a group exhibit of their work.

Architecture Courses

ARCH 111 Graphic Communication 2 credits. Introduction to the methods used in the preparation of design and presentation drawing necessary in any design profession. F, S

ARCH 112 Graphic Communication 2 credits. Continuation of ARCH 111; practice with the methods used in the preparation of design and presentation drawing necessary in any design profession. PREREQ: ARCH 111. F, S

ARCH 204 Presentation Drawings 1-3 credits. Individual student selected projects to develop techniques used for preparation of display drawings. Emphasis on realism and value studies needed to “sell” design concepts to a client. May be repeated for up to 4 credits. D

ARCH 255 Basic Architectural Design 3 credits. Introduction to form, space, and systems of elementary architectural projects. Course to consist of two-three-hour studios per week. PREREQ: ARCH 112, ART 103 and ART 104. F, S

ARCH 256 Basic Architectural Design 3 credits. Continuation of ARCH 255. PREREQ: ARCH 255. F, S

ARCH 266 Materials and Methods 3 credits. Material characteristics from manufacture to construction use. Product information and resource literature investigation. D

Department of Biological Sciences

Chair and Professor: Bowyer
Assistant Chair for Undergraduate Programs and Professor: Scalarone

Assistant Chair for Graduate Programs and Professor: Rose

Professors: Crowell, Finney, Inouye, Keeley, Peterson, Rodnick, R. Smith, Stephens, Winston

Research Professors: Huntly, Kie

Associate Professors: C. Anderson, Bearden, Delehanty, DeVeaux, Germino, Groome, Hill, Kelchner, Magnuson, Meldrum, Sheridan, Shields, Thomas, Williams

Clinical Associate Professors: S. Galindo, Nehr-Kanet
The B.A. in Biology program is designed for students who wish to emphasize the biological sciences but who do not plan to enroll in graduate or professional programs in the biological or medical sciences. Students who meet the minimum requirements for this program, which requires fewer courses in Chemistry and Physics, will not meet the minimum requirements for admission to most graduate and professional programs.

The B.S. degrees in Botany and Zoology are 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 Ecology program seeks to develop an understanding of ecological systems and their reactions to perturbations, expertise in problem solving and communication skills, and a solid background in basic ecology and supporting disciplines. The curriculum was designed to meet the needs of students who are interested in environmental assessment, planning, conservation, and work with natural resource management agencies, or of those who wish to pursue advanced training in ecology.

The student majoring in Microbiology, Clinical Laboratory Science, or Biochemistry is provided with a broad base of theoretical and practical knowledge which will qualify him or her either for an immediate career in microbiology, clinical laboratory science, or biochemistry or for further education in graduate or professional school. Men and women in the health professions use their microbiological and biochemical training daily to diagnose and treat disease conditions caused by bacteria, fungi, viruses, cancers, and biochemical imbalances. Food microbiologists and research scientists directly apply their knowledge of the basic principles of microbiology and biochemistry in the development and processing of their products. Doctors, nurses, and medical and dental technicians constantly utilize microbiology training in their work.

The student pursuing any B.S. degree in the biological sciences must complete General Education Goals 1, 2, 3, 4 and 5; two of Goals 6, 7, 8; and three of Goals 9, 10, 11, and 12 (Goals 10A and 10B are alternate means of satisfying Goal 10), in addition to satisfying the departmental requirements. A student pursuing a B.A. in biology must complete all General Education Goals (i.e., Goals 1-9a, 10A and 10B, and 11-12) in addition to satisfying the departmental requirements.

A maximum of 8 credits of BIOL g481/g482, Independent Problems, may be applied to any Bachelor’s degree program in Biological Sciences. Students involved in undergraduate research may also apply 4 credits of BIOL 493, Senior Thesis, to their degree program.

Students may select courses in the College of Education to meet the requirements for teacher certification while completing a degree in the College of Arts and Sciences. Such students must apply for admission to the Teacher Education Program. See the Teacher Education Program in this Catalog for requirements in the College of Education.

Students should consult current departmental list of course rotations to determine which semesters and years these courses will be offered.

### Associate of Science in Biology

**Required Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 101,101L</td>
<td>Biology I, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 102,102L</td>
<td>Biology II, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 209,209L</td>
<td>General Ecology, and Lab</td>
<td>4 cr</td>
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<tr>
<td>BIOL 206,207</td>
<td>Cell Biology, and Lab</td>
<td>4 cr OR</td>
</tr>
<tr>
<td>BIOL 221,221L</td>
<td>Introductory Microbiology, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>MATH 147</td>
<td>College Algebra and Trigonometry</td>
<td>5 cr</td>
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<tr>
<td>MATH 160***</td>
<td>Applied Calculus</td>
<td>3 cr OR</td>
</tr>
<tr>
<td>PHYS 111,113</td>
<td>General Physics I, and Lab</td>
<td>5 cr</td>
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<tr>
<td>OR these three courses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEM 111,111L, and CHEM 112,112L**</td>
<td>General Chemistry I and II, and Labs</td>
<td>9 cr</td>
</tr>
</tbody>
</table>

* 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.

** Chemistry 111, 111L, and 112, 112L are highly recommended; they are required for all B.S. and B.A. degrees in the biological sciences except for a B.S. in Biology and they are required for nearly all professional programs. Please talk to your academic advisor.

Notes:

* *Joint program with the Department of Chemistry.*
Bachelor of Arts in Biology

The purpose of the B.A. in Biology is to serve students who have a broad interest in the biological sciences and who seek

- A Bachelor’s degree, regardless of the track selected.
- A major in Biology.
- A minor in another scientific field.

Core Requirements

Students pursuing a Bachelor of Science degree must satisfy goals 1 and 2, two of goals 6, 7, and 8, and three of goals 9, 10, 11, and 12. Goal 10 may be satisfied by either 10A or 10B. Students must also satisfy the core requirements listed below, the requirements for one of the biochemistry tracks, and 12 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.

BIOL 101, 101L Biology I, and Lab 4 cr
BIOL 102, 102L Biology II, and Lab 4 cr
BIOL 206 Cell Biology 3 cr
BIOL 235, 235L General Microbiology, and Lab 4 cr
BIOL 358 Genetics 3 cr
BIOL 437 CHEM Experimental Biochemistry 1 cr
BIOL CHEM g445 Biochemistry I 3 cr
BIOL CHEM g447 Biochemistry II 3 cr
BIOL CHEM g448 Advanced Experimental Biochemistry 2 cr
BIOL CHEM 498 Seminar in Biochemistry 1 cr
CHEM 111, 111L General Chemistry I, and Lab 5 cr
CHEM 112, 112L General Chemistry II, and Lab 4 cr
CHEM 232, 234 Quantitative Analysis, and Lab 4 cr
CHEM 301, 303 Organic Chemistry I, and Lab 4 cr
CHEM 302, 304 Organic Chemistry II, and Lab 4 cr
CHEM 341* Topics in Physical Chemistry 1 cr
CHEM 342* Topics in Physical Chemistry II 3 cr
MATH 170 Calculus I 4 cr
MATH 175 Calculus II 4 cr
PHYS 111, 113** General Physics I, and Lab 4 cr
PHYS 112, 114** General Physics II, and Lab 4 cr
Subtotal: 71 cr

General Education Requirements 24 cr

*MAY elect to take CHEM 351 and 352 instead of CHEM 341 and 342.
**PHYS 211, 212, 213, 214 may be taken to fulfill the Physics requirement in the core curriculum.

Track 1: Biological Chemistry (13 cr)
CHEM 211, 213 Inorganic Chemistry, and Lab 4 cr
CHEM 331, 334 Instrumental Analysis, and Lab 4 cr
CHEM 365, 366 Synthetic Methods, and Lab 4 cr
CHEM 492 Seminar 1 cr

Track 2: Biochemistry and Molecular Biology (16 cr)
BIOL 303, 303L; or 404, 404L; or g433, 433L Animal, or Plant, or Microbial Physiology, and Lab 4 cr
BIOL g434, g434L Microbial Diversity, and Lab 4 cr
BIOL g444, g444L Molecular Biology, and Lab 4 cr
BIOL g461 Advanced Genetics 3 cr
BIOL 492 Seminar 1 cr

Track 3: Physiological Biochemistry (16 cr)
BIOL 301, 301L Anatomy and Physiology, and Lab 4 cr
BIOL 302, 302L Anatomy and Physiology, and Lab 4 cr
PS CI 205 Drugs in Society 2 cr
PS CI 301 Introduction to Pharmacology 3 cr
PS CI 353 Introduction to Methods in Pharmaceutical Sciences 2 cr
BIOL 492 Seminar 1 cr

Electives

Choose a minimum of 16 credits, with at least 6 credits in Biological Sciences (BIOL) and 6 credits in Chemistry (CHEM).

Advanced or experimental courses are acceptable. These courses satisfy the electives requirement only if they are not required for a specific Biochemistry track.

BIOL 301, 301L Anatomy and Physiology, and Lab 4 cr
BIOL 302, 302L Anatomy and Physiology, and Lab 4 cr
BIOL 303, 303L Principles of Animal Physiology, and Lab 4 cr
BIOL 324, 324L Developmental Biology, and Lab 4 cr
BIOL g404, g404L Plant Physiology, and Lab 4 cr
BIOL g411K Molecular Biology Laboratory Methods 3 cr
BIOL g415, g415L Human Neurobiology, and Lab 5 cr
BIOL g417 Organic Evolution 3 cr
BIOL g433, g433L Microbial Physiology, and Lab 4 cr
BIOL g434, g434L Microbial Diversity, and Lab 4 cr
BIOL g443 Endocrinology 3 cr
BIOL g444, g444L Molecular Biology, and Lab 4 cr
BIOL g449, g449R / PHAR 949, 949R Human Physiology, and Recitation 4 cr
BIOL g451, g451L Immunology, and Lab 4 cr
BIOL g456, g456R / PHAR 956, 956R Human Physiology, and Recitation 4 cr
BIOL g461 Advanced Genetics 3 cr
BIOL g463, g463L Human Pathophysiology, and Lab 4 cr
BIOL g475 General Virology 3 cr
BIOL g477 or g478 Bacterial or Animal Virology Laboratory 1 cr
BIOL g481 and/or g482 Independent Problems (max 2 credits) 2 cr
BIOL g488 Advanced Radiobiology 3 cr
CHEM 211, 213 Inorganic Chemistry, and Lab 4 cr
CHEM 311 and/or 312 Introduction to Research (max 2 credits) 3 cr
CHEM 331, 334 Instrumental Analysis, and Lab 4 cr
CHEM 365, 366 Synthetic Methods, and Lab 4 cr
CHEM g405* Inorganic Chemistry II 3 cr
CHEM g433, g437 Environmental Chemistry, and Lab 4 cr
CHEM g453** Modern Experimental Physical Chemistry 3 cr
CHEM g481 and/or g482 Independent Problems (max 2 credits) 2 cr
MATH 240 Linear Algebra 3 cr
MATH 275 Calculus III 4 cr
MATH 360 Differential Equations 3 cr
PS CI 205 Drugs in Society 2 cr
PS CI 301 Introduction to Pharmacology 3 cr
PS CI 308 Drug Discovery 3 cr
PS CI 353 Introduction to Methods in Pharmaceutical Sciences 2 cr
PS CI 368 Introduction to Toxicology 3 cr
PS CI 402 Immunopharmacology 2 cr
PS CI 403 Infectious Diseases and Natural Products 3 cr
PS CI 407 Pharmacogenomics 2 cr
PS CI 408 Medicinal Chemistry 3 cr
PS CI 431 Cancer Biology 3 cr
PS CI 434 Pharmacokinetics 3 cr

* Prerequisites include CHEM 211, 211L, 351, and 352.
** Prerequisites include CHEM 334, 351, and 352.
substantial latitude in the development of their own programs. This degree fosters broad exposure to disciplines outside of the biological sciences and knowledge and understanding of major concepts in the biology as well as the processes of scientific investigation. The B.A. serves students who intend to graduate with a B.A. in biology, certify to teach in public schools, satisfy the admission requirement for health related professional schools, emphasize ecology or natural history, or develop a variety of laboratory skills. The B.A. in Biology requires significant exposure to concepts in math and the physical sciences and broad exposure to disciplines outside of the biological sciences as well as to disciplines within the biological sciences while providing a large number of electives. The consequence is broad exposure to the biological sciences and an opportunity to specialize in areas of interest to students.

Required Courses:

BIOL 101,101L Biology I, and Lab 4 cr
BIOL 102,102L Biology II, and Lab 4 cr
BIOL 206,207 Cell Biology, and Lab 4 cr
BIOL 209,209L General Zoology, and Lab 4 cr
BIOL 358 Genetics 3 cr
BIOL 417 Organic Evolution 3 cr
BIOL 491,492 Seminar 1 cr

Additional upper division course work in Biological Sciences, 28 cr which must include at least 6 credits in Botany (BIOL g404, g405, g406, g408, g409, or g412) and at least 6 credits in Zoology (BIOL 310, 314, 324, g419, g420, g423, g426, g427, g429, g431, g432, g435, g438, g440, g441, g443, g444, g456, g459, g470, g486, or g495)
CHEM 111,111L General Chemistry I, and Lab 5 cr
CHEM 112,112L General Chemistry I Lab and Lab 4 cr
MATH 160 Applied Calculus (see note 5) 3 cr
MATH 160. MATH 160 has a prerequisite of MATH 143.

Notes:

1. Students pursuing a Bachelor of Arts degree must satisfy all of the General Education goals.
2. Students who plan to apply to graduate or professional programs in the biological or medical sciences are strongly advised to take CHEM 111, 111L and CHEM 112, 112L, a full year of Organic Chemistry (add CHEM 302, 304), and a full year of Physics (add PHYS 112, 114). These classes are required by many graduate and professional programs.
3. Students should consult with their advisors and with the current departmental list of course rotations to determine which semesters and years biology electives will be offered.
4. Students may select courses in the College of Education to meet the requirements for teacher certification while completing a degree in the College of Arts and Sciences. Such students must apply for admission to the Teacher Education Program. See the Teacher Education Program section for requirements in the College of Education.
5. Students may take MATH 170 in place of MATH 160. MATH 160 has a prerequisite of MATH 143. MATH 170 has prerequisites of MATH 143 & 144. Prerequisites for both classes can be satisfied by the Mathematics placement exam.
6. Up to 8 credits of Organic Chemistry may be counted towards required upper division credits in Biological Sciences.

Bachelor of Science in Biology

The purpose of the B.S. in Biology is to serve students who have a broad interest in the biological sciences and who seek substantial latitude 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. The B.S. also serves students who intend to graduate with a B.S. in biology, certify to teach in public schools, satisfy the admission requirement for health related professional schools, emphasize ecology or natural history, or develop a variety of laboratory skills. The B.S. in Biology requires significant exposure to concepts in math and the physical sciences and broad exposure to the biological sciences while providing a large number of electives. The consequence is broad exposure to the biological sciences and an opportunity to specialize in areas of interest to students.

Required Courses:

BIOL 101,101L Biology I, and Lab 4 cr
BIOL 102,102L Biology II, and Lab 4 cr
BIOL 206,207 Cell Biology, and Lab 4 cr
BIOL 209,209L General Ecology, and Lab 4 cr
BIOL 235,235L General Microbiology, and Lab 4 cr
BIOL 358 Genetics 3 cr
BIOL 417 Organic Evolution 3 cr
BIOL 491,492 Seminars 2 cr

Additional upper division courses in Biological Sciences, 21 cr which must include at least 6 credits in Botany: (BIOL g404, g405, g406, g408, g409, or g412) and at least 6 credits in Zoology: (BIOL 310, 314, 324, g419, g420, g423, g426, g427, g429, g431, g432, g435, g438, g440, g441, g443, g444, g456, g459, g470, g486, or g495)
CHEM 111,111L General Chemistry I, and Lab 5 cr
CHEM 112,112L General Chemistry I Lab and Lab 4 cr
MATH 160 Applied Calculus (see note 5) 3 cr
MATH 160. MATH 160 has prerequisites of MATH 143 & 144. Prerequisites for both classes can be satisfied by the Mathematics placement exam.

Notes:

1. Students pursuing a Bachelor of Science degree must satisfy goals 1, 2, 3, 4, and 5, two of goals 6, 7, and years biology electives will be offered.
4. Students may select courses in the College of Education to meet the requirements for teacher certification while completing a degree in the College of Arts and Sciences. Such students must apply for admission to the Teacher Education Program. See the Teacher Education Program section for requirements in the College of Education.
5. Students may take MATH 170 in place of MATH 160. MATH 160 has a prerequisite of MATH 143. MATH 170 has prerequisites of MATH 143 & 144. Prerequisites for both classes can be satisfied by the Mathematics placement exam.
6. CHEM 302,304 may be counted towards lower division Chemistry.
7. A maximum of 8 credits of BIOL g481/g482, Independent Problems, may be applied to this degree program.

Bachelor of Science in Botany

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 advanced 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, 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

BIOL 101,101L Biology I and Lab 4 cr
BIOL 102,102L Biology II and Lab 4 cr
BIOL 206,207 Cell Biology, and Lab 4 cr
BIOL 209,209L General Ecology, and Lab 4 cr
BIOL 358 Genetics 3 cr
BIOL 404,404L Elements of Plant Physiology, and Lab 4 cr
BIOL 406,406L Plant Diversity and Evolution, and Lab 4 cr
BIOL 495,495L Plant Biology 4 cr
BIOL 497,497L Organic Evolution 4 cr
BIOL 499,499L Plant Biology 4 cr

Notes:

1. Students pursuing a Bachelor of Science degree must satisfy goals 1, 2, 3, 4, and 5, two of goals 6, 7, and 8, and three of goals 9, 10, 11, and 12. Goal 10 may be satisfied by either 10A or 10B.
2. Students who plan to apply to graduate or professional programs in the biological or medical sciences are strongly advised to take a full year of Organic Chemistry (add CHEM 302, 304) and a full year of Physics (add PHYS 112, 114). These classes are required by many graduate and professional programs.
3. Biology electives must include upper division course work in both botany and zoology. Students should consult with their advisors and the current departmental list of course rotations to determine which semesters and years biology electives will be offered.
4. Students may select courses in the College of Education to meet the requirements for teacher certification while completing a degree in the College of Arts and Sciences. Such students must apply for admission to the Teacher Education Program. See the Teacher Education Program section for requirements in the College of Education.
5. Students may take MATH 170 in place of MATH 160. MATH 160 has a prerequisite of MATH 143. MATH 170 has prerequisites of MATH 143 and 144. Prerequisites for both classes can be satisfied by the Mathematics placement exam.
6. Up to 8 credits of Organic Chemistry may be counted towards required upper division credits in Biological Sciences.

7. A maximum of 8 credits of BIOL g481/g482, Independent Problems, may be applied to this degree program.
## Bachelor of Science in Ecology

The purpose of the B.S. in Ecology is to serve students who seek to develop a strong background in the fundamental principles of ecology and in more specific fields of study, many of which include the collection and analysis of field data. The B.S. in Ecology is recommended to students who plan careers in ecology, conservation biology, environmental studies, or resource management. The B.S. in Ecology prepares students for employment in resource management agencies and private companies as well as for advanced studies at the graduate level.

### 1. Required Biology Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 101,101L</td>
<td>Biology I, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 102,102L</td>
<td>Biology II, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 200,200L</td>
<td>Cell Biology, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 358</td>
<td>Genetics</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL 417</td>
<td>Organic Evolution</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL 491 or 492</td>
<td>Senior Seminar</td>
<td>1 cr</td>
</tr>
</tbody>
</table>

### 2. Required Ecology Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 192</td>
<td>Ecology Seminar</td>
<td>1 cr</td>
</tr>
<tr>
<td>BIOL 209,209L</td>
<td>General Ecology, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 418</td>
<td>Ecological Topics</td>
<td>1-3 cr</td>
</tr>
<tr>
<td>BIOL 489</td>
<td>Field Ecology</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL 496</td>
<td>Ecology Senior Seminar</td>
<td>1 cr</td>
</tr>
</tbody>
</table>

Plus two of the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 337</td>
<td>Conservation of Natural Resources</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL 408,408L</td>
<td>Plant Ecology, and Lab</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL 446,446L</td>
<td>Population and Community</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL 442</td>
<td>Plant/Animal Interactions</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL 459</td>
<td>Fish Ecology</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL 462</td>
<td>Freshwater Ecology</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL 476,476L</td>
<td>Ecology of Water Pollution, and Lab</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

### 3. Organismal Biology (Take two of the following courses)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 303,303L</td>
<td>Principles of Animal Physiology, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 310,310L</td>
<td>Invertebrate Zoology, and Lab</td>
<td>4 cr</td>
</tr>
</tbody>
</table>

### 4. Required Quantitative Skills

**Courses **

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 316</td>
<td>Biometry Laboratory</td>
<td>1 cr</td>
</tr>
<tr>
<td>MATH 350</td>
<td>Statistical Methods</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHYS 111,113</td>
<td>General Physics I, and Lab</td>
<td>4 cr</td>
</tr>
</tbody>
</table>

Plus one of the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL g403,g403L</td>
<td>Introduction to GIS</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 175</td>
<td>Calculus II</td>
<td>4 cr</td>
</tr>
<tr>
<td>MATH 240</td>
<td>Linear Algebra</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 287</td>
<td>Foundations of Mathematics</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHYS 112</td>
<td>General Physics II</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

### 5. Required Supporting Sciences

**Courses **

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 112,112L</td>
<td>General Chemistry I, and Lab</td>
<td>5 cr</td>
</tr>
<tr>
<td>CHEM 301,303L</td>
<td>Organic Chemistry I, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>MATH 160</td>
<td>Applied Calculus</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 170</td>
<td>Calculus I</td>
<td>4 cr</td>
</tr>
</tbody>
</table>

Plus one of the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 432†</td>
<td>Biochemistry†</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL g445</td>
<td>Biochemistry I</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL g447</td>
<td>Biochemistry II</td>
<td>3 cr</td>
</tr>
<tr>
<td>CHEM 302,304L</td>
<td>Organic Chemistry II, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>GEOL 101,101L</td>
<td>Physical Geology, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>GEOL 402</td>
<td>Geomorphology</td>
<td>4 cr</td>
</tr>
<tr>
<td>GEOL 406</td>
<td>Environmental Geology</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL 409</td>
<td>Remote Sensing</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL 415</td>
<td>Quaternary Geology</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL 420</td>
<td>Principles of Geochemistry</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL 421</td>
<td>Structural Geology</td>
<td>4 cr</td>
</tr>
<tr>
<td>GEOL 430</td>
<td>Principles of Hydrogeology</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL 445</td>
<td>Principles of Geophysics</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL 452</td>
<td>Sedimentation–Stratigraphy</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 175</td>
<td>Calculus II</td>
<td>4 cr</td>
</tr>
<tr>
<td>MATH 240</td>
<td>Linear Algebra</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 267</td>
<td>Foundations of Mathematics</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHYS 112</td>
<td>General Physics II</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHYS 412</td>
<td>Environmental Health Physics</td>
<td>3 cr</td>
</tr>
</tbody>
</table>
| MATH 493    | Senior Thesis, in the area of ecology. A maximum of 8 credits of BIOL g481/g482 may be applied to this degree program. ECON 201 and 202 are highly recommended (only 3 credits may be applied toward Goal 11 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 MATH 170 in place of MATH 160. MATH 160 has a prerequisite of MATH 143. MATH 170 has prerequisites of MATH 143 and 144. Prerequisites for both classes can be satisfied by the Mathematics placement exam. The requirement for MATH 350 and BIOL 316 may be met by MGT 216 and MGT 217. MATH 253 does not satisfy this requirement. † Credits for BIOL 481, 482, 493 or 499 can be substituted for courses in categories 2, 3, and 4, subject to approval by the Assistant Chair for Undergraduate Programs. Maximum of 8 credits of BIOL g481/g482, Independent Problems, may be applied to this degree program.### Bachelor of Science in Microbiology

The purpose of the B.S. in Microbiology is to serve students who seek to develop a strong background in microbiology, and in broad areas of molecular biology, biotechnology, and medical and/or ecological applications. Majors gain experiences that prepare them to participate in the development of research plans and their implementation, and to be competent to carry out standard microbiological and molecular biology techniques in the laboratory. The B.S. in microbiology prepares students to be competitive for positions in research, graduate schools, health professional schools, and in the biotechnology industry.

### Core Requirements of the Microbiology Major

Students pursuing a Bachelor of Science degree must satisfy goals 1, 2, 3, 4, and 5, two of goals 6, 7, and 8, and three of goals 9, 10, 11, and 12. Goals 3, 4, and 5 are satisfied by courses in the lists below. Goal 10 may be satisfied by either 10A or 10B.

#### Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 101,101L</td>
<td>Biology I, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 102,102L</td>
<td>Biology II, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 206</td>
<td>Cell Biology</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL 235,235L</td>
<td>General Microbiology, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 358</td>
<td>Genetics</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL g432†</td>
<td>Biochemistry†</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL g433,g433L</td>
<td>Microbial Physiology, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL g434,g434L</td>
<td>Microbial Diversity, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL g437</td>
<td>Experimental Biochemistry</td>
<td>1 cr</td>
</tr>
<tr>
<td>BIOL g444,g444L</td>
<td>Molecular Biology, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL g451,g451L</td>
<td>Immunology, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL g455,455L</td>
<td>Pathogenic Microbiology, and Lab</td>
<td>5 cr</td>
</tr>
<tr>
<td>BIOL 461</td>
<td>Advanced Genetics</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL 475</td>
<td>General Virology</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL g476 or g478</td>
<td>Bacterial or Animal Virology Laboratory</td>
<td>1 cr</td>
</tr>
</tbody>
</table>
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.

Required Courses***

BIOL 101,101L Biology I, and Lab 4 cr
BIOL 102,102L Biology II, and Lab 4 cr
BIOL 206,207 Cell Biology, and Lab 4 cr
BIOL 209,209L General Ecology, and Lab 4 cr
BIOL 303,303L Principles of Animal Physiology, and Lab 4 cr
BIOL 310,310L Invertebrate Zoology, and Lab 4 cr
BIOL 314,314L Comparative Vertebrate Anatomy, and Lab 4 cr
BIOL 324,324L Developmental Biology, and Lab 4 cr
BIOL 351L Biometry Lab 1 cr
BIOL 367 Organic Evolution 3 cr
BIOL 358 Genetics 3 cr
BIOL 491,492 Seminars 2 cr
CHEM 111,111L General Chemistry I, and Lab 5 cr
CHEM 112,112L General Chemistry II, and Lab 5 cr
CHEM 232,234 Quantitative Analysis, and Lab 6 cr
CHEM 301,303 Organic Chemistry I, and Lab 4 cr
CHEM 302,304 Organic Chemistry II, and Lab 4 cr
MATH 160 Brief Calculus 3 cr
MATH 170 Calculus I 4 cr

Courses in Physics

PHYS 111,113 General Physics I, and Lab 4 cr
PHYS 112,114 General Physics II, and Lab 4 cr

Notes:

In order to satisfy the Biochemistry course requirement, students must take BIOL/CHM 445/447 instead of BIOL 337 and the BIOL/CHM 445/447 sequence. Students electing to take the two-semester sequence of Biochemistry must take the one-semester Biochemistry lecture in lieu of the one-semester Biochemistry lecture. Students must take 12 credits from the list of Microbiology Electives.

* Students must take 12 credits from the list of Microbiology Electives. Students interested in molecular or biochemistry, industrial microbiology, or environmental microbiology are advised to follow the suggested Electives Group 1.

** Additional courses in Mathematics that are highly recommended for students planning to attend graduate school are MATH 175 (prerequisite is MATH 170), 275, 330, or 360.

Minors in Biological Sciences

Minor in Biology

The Biology Minor is available only for majors outside of the Biological Sciences.

BIOL 101,101L Biology I, and Lab 4 cr
BIOL 102,102L Biology II, and Lab 4 cr
BIOL 221,221L Introductory Microbiology, and Lab 4 cr
BIOL 206,207 Cell Biology, and Lab 4 cr
BIOL 209,209L General Ecology, and Lab 4 cr
BIOL 358 Genetics 3 cr
BIOL 417 Organic Evolution 3 cr

Upper division Biology courses* 3-4 cr

TOTAL: 29-30 cr

* BIOL 481-g482 and BIOL 491-g492 may not be used without prior approval of the departmental chair or assistant chair.

Minor in Botany

BIOL 101,101L Biology I, and Lab 4 cr
BIOL 102,102L Biology II, and Lab 4 cr
BIOL 206,207 Cell Biology, and Lab 4 cr
BIOL 209,209L General Ecology, and Lab 4 cr
BIOL 358 Genetics 3 cr
BIOL 417 Organic Evolution 3 cr

Upper division Botany courses* 7-8 cr

TOTAL: 28-30 cr

* BIOL 481-g482 and BIOL 491-g492 may not be used without prior approval of the departmental chair or assistant chair.

Minor in Ecology

BIOL 101,101L Biology I, and Lab 4 cr
BIOL 102,102L Biology II, and Lab 4 cr
BIOL 192 Ecology Seminar 1 cr
BIOL 209,209L General Ecology and Lab 4 cr

Any combination of the following courses to total 12 credits:

BIOL 320 Physiological Ecology 3 cr
BIOL 337 Conservation of Natural Resources 3 cr
BIOL 408-g408L Plant Ecology, and Lab 3 cr
BIOL 416-g416L Community Ecology, and Lab 3 cr
BIOL 418 Ecological Topics 2 cr
BIOL 432 Population Ecology 3 cr
BIOL 439 Fish Ecology 3 cr
BIOL 462-g462L Fresh Water Ecology, and Lab 3 cr
BIOL 476-g476L Ecology of Water Pollution, and Lab 3 cr
BIOL 489 Field Ecology 3 cr

(BIOL 481-g482 and BIOL 491-g492 may not be used without prior approval of the departmental chair or assistant chair.)

Minor in Microbiology

BIOL 235,235L General Microbiology and Lab 4 cr

Any combination of the following courses to total 14 credits:

BIOL 358 Genetics 3 cr
BIOL 432 Biochemistry 3 cr
BIOL 433-g433L Microbial Physiology, and Lab 4 cr
BIOL 434-g434L Microbial Diversity, and Lab 4 cr
BIOL 437-CHM 438 Experimental Microbiology 1 cr
BIOL 444-g444L Molecular Biology, and Lab 4 cr
BIOL 451-g451L Immunology, and Lab 4 cr
BIOL 455-g455L Pathogenic Microbiology, and Lab 5 cr
Admission to the level II courses in the professional block and the clinical experience is by application to the program. Application packets are available through the Department of Biological Sciences. Successful completion of the level I courses is required prior to entry into the level II courses and clinical experience.

Required Clinical Courses (Professional Block):

- **BIOL 411Q** Introduction to Clinical Laboratory Science 2 cr
- **BIOL 411P** Phlebotomy, Urinalysis and Waived Testing 2 cr
- **BIOL 411F** Clinical Hematology 3 cr
- **BIOL 411J** Clinical Chemistry 3 cr
- **BIOL 411G** Critical Analysis of Laboratory Values 3 cr
- **BIOL 411K** Molecular Biology Laboratory Methods 3 cr
- **BIOL 411D** Clinical Microbiology I 3 cr
- **BIOL 411E** Clinical Microbiology II 3 cr
- **BIOL 411M** Research OR
- **BIOL 468** Graduate Research 1-3 cr
- **BIOL g411S** Laboratory Analysis and Management 3 cr
- **BIOL g411V** Immunology and Transfusion Medicine 3 cr
- **BIOL 411I** Clinical Immunology 3 cr
- **BIOL 411N** Transfusion Medicine II 3 cr
- **BIOL 411K** Clinical Experience 1-6 cr

Certification as a Clinical Laboratory Scientist (Medical Technologist)

Certification by a national credentialing examination qualifies the graduate to practice as a Clinical Laboratory Scientist in hospitals and other practice venues where credentialing is required. Completion of the 38 credit CLS professional block (as part of the CLS degree, the second B.S. in CLS, or the certificate of completion) will qualify as the accredited program or internship requirement for national certification exams for Clinical Laboratory Scientists (Medical Technologists). In order to be eligible to sit for the national credentialing exam in CLS, the student must complete the full 6 credit hours of clinical experience (BIOL 411N).

The B.S. degree in CLS may be awarded with the minimum number of credits in clinical experience (1 credit hour) as long as the 128 total credit hour graduation requirement is satisfied. Such a degree would be of interest to students preparing for CLS related careers but not for employment in hospitals as Clinical Laboratory Scientists (Medical Technologists).

Students planning to attend other professional schools after completing the degree in CLS 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 CLS.

Professional Block

The professional block with the exception of 411N (Clinical Experience) is offered in live lecture/lab classes and via WEB CT (electronic delivery) in both Pocatello and Boise. With permission of the program director, the professional block can be taken on-line. 411N (Clinical Experience) is arranged through participating hospitals and clinics throughout Idaho and adjacent states.
The General Education and Total University Credit Requirements must be met. See General Education Goals for a B.S. degree. A minimum of 128 credits are required for graduation. 36 of these must be upper division credits.

A student may be awarded a B.S. degree in Clinical Laboratory Science by fulfilling the following requirements:

1. University General Education Goals 1-5, two of Goals 6, 7, 8, and three of Goals 9, 10a/10b, 11 or 12.

2. Required Science and Math Courses:

   - **Chemistry:**
     - CHEM 111, 111L, and CHEM 112, 112L: General Chemistry I and II, and Labs 9 cr
     - Plus additional courses to total 16 hours, to include inorganic/organic/biochemistry/analytical chemistry.

   - **Biology:**
     - BIOL 101, 101L, 102, 102L: Biology I and II, and Labs 8 cr AND BIOL 206, 207: Cell Biology, and Lab 4 cr

   - **Mathematics:**
     - MATH 143: College Algebra 3 cr
     - MATH 160: Applied Calculus 3 cr OR MATH 253: Introduction to Statistics 3 cr

   - **Cell Function:**
     - BIOL 206, 207: Cell Biology, and Lab 4 cr

   - **Pathology:**
     - BIOL 235, 235L: General Microbiology 4 cr

   - **Immunology:**
     - BIOL 305: Human Pathology 4 cr

   - **Other:**
     - BIOL 235: General Microbiology 4 cr AND Human Anatomy and Physiology courses to total 8 credits.

3. **Seminar (2 credits, chosen from the following):**
   - BIOL 491 or 492: Seminar 1 cr
   - BIOL 494: Seminar in Microbiology 1 cr

4. **Required Clinical Courses (Professional Block):**

5. **Additional Science/Math Courses:**

   - At least two courses selected from the following areas (or others with approval by program Coordinator):
     - Advanced Biochemistry
     - Advanced Genetics
     - Advanced Microbiology
     - Analytical Chemistry
     - Biochemistry
     - Biometry
     - Biophysics
     - Computer Science
     - Developmental Biology
     - Endocrinology
     - Epidemiology
     - Health Care Management
     - Histology

   - **Instrumental Analysis**
     - Molecular Biology
     - Mycology
     - Nutritional Biochemistry
     - Physics
     - Parasitology
     - Statistics
     - Virology

   - A minimum of 128 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 CLS/ B.S. degree, may complete the 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 registry exams. Credit may be given for experience and coursework at the discretion of the CLS faculty and Program Director. Students whose preparation does not include the required courses listed under the B.S. in Clinical Laboratory Science may be required to take additional courses outside the professional block at the discretion of the CLS faculty and 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.

### Biological Sciences Courses

Each of the following BIOL courses has a required laboratory component that is listed separately in the Class Schedule. These laboratories are integral to the courses. Register for a laboratory section in addition to the lecture:

- BIOL 100: Concepts of Biology: Human Concerns Lab 0 credits. Assignments to apply principles from BIOL 100. F, S
- BIOL 101: Concepts of Biology: Human Concerns Lab 0 credits. Assignments to apply principles from BIOL 101. F, S
- BIOL 102: Concepts of Biology: Human Concerns Lab 0 credits. Assignments to apply principles from BIOL 102. F, S

The following BIOL courses have a required laboratory component that is listed separately in the Class Schedule. These laboratories are integral to the courses. Register for a laboratory section in addition to the lecture:

- BIOL 100: Concepts of Biology: Human Concerns Lab 0 credits. Assignments to apply principles from BIOL 100. F, S
- BIOL 101: Concepts of Biology: Human Concerns Lab 0 credits. Assignments to apply principles from BIOL 101. F, S
- BIOL 102: Concepts of Biology: Human Concerns Lab 0 credits. Assignments to apply principles from BIOL 102. F, S

### BIOL 100 Concepts of Biology: Human Concerns Lab 0 credits. Assignments to apply principles from BIOL 100. F, S

### BIOL 101 Concepts of Biology: Human Concerns Lab 0 credits. Assignments to apply principles from BIOL 101. F, S

### BIOL 102 Concepts of Biology: Human Concerns Lab 0 credits. Assignments to apply principles from BIOL 102. F, S

### BIOL 109 Ecology Seminar 1 credit. 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 206 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 101, BIOL 102, CHEM 111, and CHEM 111L. PREREQ OR COREQ: CHEM 112 and CHEM 112L. COREQ: BIOL 207 for majors requiring BIOL 207. F, S

### BIOL 207 Cell Biology Laboratory 1 credit. Experiments applying selected concepts from BIOL 206. PREREQ: BIOL 101 and BIOL 102; one year of college chemistry or permission of instructor. PREREQ OR COREQ: BIOL 206. F, S


### BIOL 213 Fall Flora 2 credits. For teachers and others 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 214 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 221 Introductory Microbiology 3 credits. Essential principles of microbiology and an introduction to various applications of economic importance. No credit if taken after BIOL 235. PREREQ: CHEM 101, or CHEM 111 and CHEM 111L. COREQ: BIOL 101. COREQ: BIOL 221L. F, S
BIOL 221L Introductory Microbiology Laboratory 1 credit. PREREQ or COREQ: BIOL 221. F, S

BIOL 230 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 235 General Microbiology 4 credits. Comparative taxonomy, cytology, physiology, genetics, immunology, and ecology of microorganisms, and a survey of important applications. Lectures, laboratories. PREREQ: BIOL 101 and CHEM 301. COREQ: BIOL 235L. F, S

BIOL 301 Anatomy and Physiology 4 credits. Structures and functions of integumentary, skeletal, muscular, and nervous systems. Lectures, laboratories. PREREQ: BIOL 101. COREQ: BIOL 301L. F

BIOL 302 Anatomy and Physiology 4 credits. Structures and functions of circulatory, respiratory, urinary, digestive, endocrine, and reproductive systems. Lectures, laboratories. PREREQ: BIOL 101. COREQ: BIOL 302L. S

BIOL 303 Principles of Animal Physiology 4 credits. Compares homeostatic processes including ionic and osmotic regulation, nervous and muscle physiology, circulation, and respiration. Lecture and Laboratory. PREREQ: BIOL 101 and 102, and one year of college chemistry. COREQ: BIOL 303L. S

BIOL 305 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 301 and BIOL 302. F

BIOL 307 Radiobiology 3 credits. Survey of the effects of ionizing radiation on living matter at the subcellular, cellular, and organismal levels. PREREQ: BIOL 101, PHYS 111, and PHYS 112. S

BIOL 310 Invertebrate Zoology 4 credits. General study of invertebrate animals with laboratory work on representatives of the invertebrate phyla. Field trips. PREREQ: BIOL 101 and BIOL 102. COREQ: BIOL 310L. S

BIOL 314 Comparative Vertebrate Anatomy 4 credits. Descriptive studies of adult morphology of selected vertebrates and examples of other representative chordates are used to illustrate the evolution of structure and function. Lectures, laboratories. PREREQ: BIOL 101 and BIOL 102. COREQ: BIOL 314L. F

BIOL 315 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 101 and BIOL 102. COREQ: BIOL 315L. F, S

BIOL 316 Biometry Laboratory 1 credit. Statistical analysis and presentation of data for the biological sciences. This course, which complements MATH 350, focuses on manipulation, presentation, and analysis of data sets. COREQ: MATH 350. AS

BIOL 324 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 101 and BIOL 102. COREQ: BIOL 324L. S

BIOL 337 Conservation of Natural Resources 3 credits. Principles and concepts relevant to man’s influence upon his environment, especially through interruption of ecological succession, reduction of diversity in the landscape and pollution, and over-breeding. PREREQ: BIOL 209 or permission of instructor. S

BIOL 358 Genetics 3 credits. Basic principles of heredity, variation, and gene expression among eukaryotes, prokaryotes, and viruses. PREREQ: BIOL 206. F, S

BIOL 400 Oral Histology and Embryology 3 credits. The microscopic and formative processes of the teeth and their surrounding structures. Lectures, laboratories. COREQ: BIOL 400L. S

BIOL 404 Plant Physiology 4 credits. Study of plant physiological processes including water relations, mineral nutrition, photosynthesis, respiration, translocation of photosynthate, secondary compounds and phytoremediation. Lectures, laboratories. PREREQ: BIOL 101 and 102 and one year of college chemistry. COREQ: BIOL 404L. AS

BIOL 405 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 102. COREQ: BIOL 405L. AF

BIOL 406 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 101 AND 102. COREQ: BIOL 406L. AF

BIOL 408 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 101 and 102. COREQ: BIOL 408L. AF

BIOL 411I Immunology/Serology/Immunohematology II 3 credits. Advanced topics in immunology/serology/immunohematology. Application of laboratory techniques to the identification and evaluation of antibodies and antigens. Emphasis on transfusion therapy. PREREQ: BIOL 411H, permission of instructor, or acceptance into CLS Program; admitted to CLS Internship. F, S

BIOL 411J Clinical Chemistry 3 credits. Theoretical and applied aspects of clinical chemistry with emphasis on test development, validation, and use in diagnosis and management of pathological conditions. Graduate students will prepare, conduct and evaluate discussion sessions. PREREQ: Permission of instructor or acceptance into CLS Program. F

BIOL 411K Molecular Biology Laboratory Methods 3 credits. Molecular biological techniques necessary for the understanding of research and diagnostics. Specific skills include DNA purification, amplification, cloning, manipulation, analysis, sequencing expression of cloned genes, and computer bioinformatic analysis of this information. PREREQ: Permission of instructor or acceptance into CLS Program. F

BIOL 411M Clinical Laboratory Research 1-3 credits. Individual theory and application of related topics associated with the clinical laboratory. PREREQ: permission of instructor; admitted to CLS Internship. F, S, Su

BIOL 411N Clinical Laboratory Site Experience variable credits (a minimum of 6 credits are required). Structured clinical experiences at a minimum of two medical facilities. PREREQ: Permission of instructor or acceptance into CLS Program; admitted to CLS Internship. Graded S/U. F, S, Su

BIOL 411P Phlebotomy, Urinalysis, and Waived Testing 2 credits. Web assisted. Introduction to the theory and procedures for the practice of phlebotomy and simple clinical testing. Part of Clinical Laboratory Science Core Curriculum, also suited for other health care providers. PREREQ: Permission of instructor or acceptance into CLS Program. F

BIOL 411Q Introduction to Clinical Laboratory Science 2 credits. Introduction to current terminology, regulations, concepts of quality control, handling of blood borne pathogens, chemical safety, predictive value theory, regulatory agencies and standard laboratory practice. Part of the core CLS curriculum and suitable for other health care providers and professions. PREREQ: Permission of instructor or acceptance into CLS Program. F

BIOL 411S Laboratory Analysis and Management 3 credits. Advanced principals...
BIOL g411V Immunology and Transfusion Medicine 1-3 credits. Practical aspects of immunology with emphasis on pathological conditions and laboratory practice. Theoretical considerations of major blood groups with respect to transfusion therapy. Oral and written project presentation required for graduate credit. PREREQ: Permission of instructor or acceptance into CLS Program. F

BIOL g412 Systematic Botany 4 credits. Study of classification and evolution of flowering plants; techniques of phylogeny reconstruction based on molecular and morphological characters. Lectures/Laboratories. Collection/identification of local flora. Field trips. PREREQ: BIOL 101 and BIOL 102. COREQ: BIOL g412L. S

BIOL g413 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 second year teaching majors in biology. PREREQ: 16 credit hours of biology and EDUC 302, or permission of instructor. F

BIOL g415 Human Neurobiology 4 credits. Cellular-to-organismic structure and function of the human central nervous system (CNS), and CNS pathologies. PREREQ: permission of instructor. S

BIOL g415L 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 g416 Population and Community Ecology 4 credits. Introduces quantitative analysis of populations and communities, 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 209. COREQ: BIOL g416L. AF

BIOL g417 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 358. F, S

BIOL g418 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 209 or permission of instructor. F, S

BIOL g419 Mammalian Histology 4 credits. Study of animal tissues, including structural and functional characteristics of tissues and organs. Lectures, laboratories. PREREQ: BIOL 206, or BIOL 303, or BIOL 301 and BIOL 302. COREQ: BIOL g419L. F

BIOL g420 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, disease, and rehabilitative functions. PREREQ: BIOL 301 and BIOL 302. AS

BIOL g423 General Parasitology 3 credits. Study of parasitic symbioses of plants, animals and other organisms focusing on concepts, principles, and consequences of such interactions and the coevolutionary processes by which they are created. PREREQ: BIOL 101 and BIOL 102. F

BIOL g426 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 209. COREQ: BIOL g426L. AS

BIOL g427 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 209. COREQ: BIOL g427L. AF

BIOL g428 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 101 and BIOL 102. COREQ: BIOL g428L. AF

BIOL g429 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 301, BIOL 302. COREQ: BIOL g429L. F

BIOL g431 General Entomology 3 credits. Structure, development, classification, and life histories of insects, including ecological, economic and management considerations. An insect collection may be required. Lectures, laboratories, Field trips. PREREQ: BIOL 101 and BIOL 102. COREQ: BIOL g431L. AF

BIOL g432 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 101 and CHEM 301. F, S

BIOL g433 Microbial Physiology 4 credits. Comparative physiology of microorganisms, including structure/function, metabolic diversity, enzymatic mechanisms of microbial metabolism, and physiology of extreme organisms. Lectures, class exercises. PREREQ: BIOL 235 and BIOL 432. COREQ: BIOL g433L. F

BIOL g434 Microbial Diversity 4 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. PREREQ: BIOL 235, BIOL g432, and BIOL g433. COREQ: BIOL g434L. S

BIOL g435 Vertebrate Paleontology 4 credits. Phylogenic history of the vertebrates outlined in the light of morphology, classification, evolution, paleoecology, and the significance of fossils. Field trips. Cross-listed as GEOL 435. PREREQ: GEOL g431 or BIOL 314 or equivalent. F

BIOL g437 Experimental Biochemistry 1 credit. Laboratory course including both qualitative and quantitative experiments. Cross-listed as CHEM 438. PREREQ: or COREQ: BIOL g432 or BIOL/ CHEM 445. F, S

BIOL g438 Ornithology 3 credits. Study of the origin, evolution, structure, habits, adaptations, distribution, and classification of birds. Field trips. PREREQ: BIOL 101 and BIOL 102. S

BIOL g439 Principles of Taphonomy 3 credits. Effects of processes which modify organisms between death and the time they were fossilized; remains are studied. Emphasis on vertebrates. Cross-listed as ANTH g439, GEOL g439. PREREQ: permission of instructor. AS

BIOL g440 Human Gross Anatomy 4 credits. Comprehensive regional study of gross human anatomy with emphasis on the upper limb, thorax, abdomen, pelvis, and perineum. Designed for first year dental students and complements BIOL g450. Lecture and laboratory. COREQ: BIOL g440L. F

BIOL g441 Mammalogy 3 credits. General study of mammals including classification, identification, habits, ecology, economics, and techniques of study, with emphasis on North American forms. Lectures, laboratories, field trips. PREREQ: BIOL 209. COREQ: BIOL g441L. AF

BIOL g442 Plant and Animal Interactions 3 credits. Coevolution of plant and animal form and function emphasizing pollination, herbivory, parasitism, frugivory/seed dispersal, and optimal foraging. PREREQ: BIOL 209. AF

BIOL g443 Endocrinology 3 credits. Study of the anatomy and physiology of the ductless glands and the properties and uses of natural and synthetic hormones. PREREQ: BIOL 303. AS

BIOL g444 Molecular Biology 4 credits. Fundamental principles of molecular biology: DNA replication, repair, and recombination, transcriptional and post-transcriptional regulation of gene expression, RNA metabolism, protein synthesis, targeting and turnover, post-translational modifications, signal transduction, regulation of the cell division cycle, and molecular genetics of development. Laboratories. PREREQ: BIOL 101, BIOL 102, CHEM 302. F

BIOL g445 Biochemistry 13 credits. Introduces to basic aspects of biochemical systems, including fundamental chemical and physical properties of biomolecules. Enzymology, including allosterism, metabolic regulation,
BIOL 446 Selected Topics in Physiology I 1 credit. Selected topics in physiology for dental students: blood coagulation-complement-kinin systems, prostaglandin and related substances, vitamins, steroids, mucopolysaccharides, collagen and other extracellular matrix macromolecules and cyto- and molecular genetics. S

BIOL 447 Biochemistry II 3 credits. Functional continuation of g445. Lipid, amino acid, and nucleotide metabolism. Emphasis is on regulation of metabolism, metabolic dysfunctions, biochemical mechanisms of hormone action, biochemical genetics, protein synthesis, and metabolic consequences of genetic defects. Cross-listed as CHEM g447. PREREQ: BIOL/ CHEM g445. S

BIOL 448 Advanced Experimental Biochemistry 2 credits. Advanced laboratory projects designed to emphasize techniques of qualitative and quantitative biochemical analysis. Cross-listed as CHEM g448. PREREQ: BIOL 437/CHEM 438. COREQ: BIOL/CHEM g447. S

BIOL 449 Human Physiology I 4 credits. First of a two semester sequence. Physiology of the nervous, muscular, and circulatory systems. Cross-listed as PHAR 949. PREREQ: BIOL 101. F

BIOL 450 Head and Neck Anatomy 3 credits. Comprehensive presentation of the anatomy of the head and neck as it applies to the practice of dentistry. Lecture and laboratory. COREQ: BIOL g450L. S

BIOL 451 Immunology 3 credits. Study of antigens, antibodies, complement, humoral and cell-mediated immune responses, hypersensitivity, immunodeficiency, autoimmunity, tumor immunology, transplantation, vaccines, infectious disease immunology, and immunodiagnostic assays. PREREQ: BIOL 221 and BIOL 221L, or BIOL 235 and BIOL 235L. F

BIOL 451L Immunology Laboratory 1 credit. Selected laboratory experiments to accompany Immunology BIOL 451. PREREQ or COREQ: BIOL g451. Open to non-majors by special permission. F

BIOL 454 Advanced Immunology 3 credits. Detailed study of selected areas of immunobiology. Course content will vary with current demand. Students will lead discussions and present current literature. PREREQ: BIOL g451 and permission of instructor. F

BIOL 455 Pathogenic Microbiology 3 credits. How the medically important bacteria, viruses, and fungi interact with the host to produce disease, including microbe characteristics, pathogenesis, pathological processes prevention, and treatment methods. PREREQ: BIOL 221 and BIOL 221L, or BIOL 235 and BIOL 235L. S

BIOL 455L Pathogenic Microbiology Laboratory 2 credits. Will emphasize procedures for the isolation and identification of pathogenic bacteria. Clinical specimens will be provided for use in identification of unknowns. PREREQ or COREQ: BIOL g455. S

BIOL 456 Human Physiology II 4 credits. Physiology of the respiratory, renal, gastrointestinal, and endocrine systems. Includes studies of acid-base balance. Cross-listed as PHAR 956. PREREQ: BIOL g449 or equivalent. S

BIOL 459 Fish Ecology 3 credits. Study of the behavior, habitat use, population dynamics, and management of freshwater fishes, especially salmon and trout. Laboratory and weekend field trips emphasize sampling techniques and data analysis. PREREQ: BIOL 209, BIOL 315, BIOL g427 recommended. AF

BIOL 459L Fish Ecology Laboratory 0 credits. Assignments to apply principles from BIOL g459. AF

BIOL 460 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 461 Advanced Genetics 3 credits. Detailed and critical consideration of selected genetic topics with emphasis on recent advances. PREREQ: BIOL 358. S

BIOL 462 Freshwater Ecology 3 credits. Study of the interaction of physical and biotic factors in aquatic ecosystems. Lectures, Laboratories, Field trips. PREREQ: BIOL 209, COREQ: BIOL g462L. AF

BIOL 463 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 301 and BIOL 302, or permission of instructor. COREQ: BIOL g463L. F, W

BIOL 464 Lectures in Human Physiology 4 credits. Physiology of the nervous, muscular, circulatory, respiratory, and excretory systems. Includes laboratory with cadaver dissection. PREREQ: BIOL 301, BIOL 302, and one year of college chemistry. F

BIOL 466 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 221 OR BIOL 235. S

BIOL 469 Special Topics in Microbiology 1-4 credits. Study of selected topics in microbiology. Course content will vary with topics selected. May be repeated with departmental approval for nonrepetitive course content. PREREQ: Permission of instructor. F, S

BIOL 470 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 301 and BIOL 302. S

BIOL 471 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 473 Applied and Environmental Microbiology 4 credits. Laboratory and lecture investigation of concepts in applied microbiology and microbial ecology including fermentation, biotechnology, and ecophysiology. PREREQ: BIOL 235. COREQ: BIOL g473L. AS

BIOL 474 Human Anatomy (Occupational Therapy/Physical Therapy) 5 credits. Applied regional anatomy emphasizing the development, histology and gross anatomy of the musculoskeletal, peripheral nervous, and cardiopulmonary systems. Includes laboratory with cadaver dissection. PREREQ: permission of instructor. COREQ: BIOL g474L. F

BIOL 475 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 476 Ecology of Water Pollution 3 credits. Causes of pollution and their effects on the aquatic environment and its inhabitants. Special consideration given to biological and chemical assessment of pollution in streams. Field and Laboratory work. PREREQ: BIOL g462 or permission of instructor. COREQ: BIOL g476L. AS

BIOL 477 Bacterial Virology Laboratory 1 credit. Designed to acquaint students with the techniques and experimental principles used in the study of bacterial viruses. PREREQ OR COREQ: BIOL g475. S

BIOL 478 Animal Virology Laboratory 1 credit. Introduces tissue culture methods and other techniques employed in the study of animal viruses. PREREQ OR COREQ: BIOL g475. F

BIOL 479 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 481 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 482 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 486 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 111, CHEM 111L, CHEM 112, and CHEM 112L; BIOL 301 and BIOL 302 or equivalent. COREQ: BIOL g486L. F
Department of Chemistry

Chair and Professor: Holman (Organic), De Jesus (Organic), Kalivas (Analytical), Rodriguez (Physical), J. Rosentretre (Analytical)

Associate Professors: Goss (Physical), Holland (Inorganic) Pak (Organic)

Assistant Professors: Bennett (Inorganic), Davis (Organic)

Associate Lecturers: Omar, R. Rosentretre

Affiliate Faculty: Pattie Emeriti: Braun, Faler, Ronald, Strommen, Sutter, Wiegand

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. 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 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. All credits applied to a chemistry degree or applied to chemistry courses used to satisfy Goal 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 interven-

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.

First Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CHEM 111, 111L</td>
<td>5 cr</td>
</tr>
<tr>
<td>CHEM 112, 112L</td>
<td>5 cr</td>
</tr>
<tr>
<td>MATH 170</td>
<td>4 cr</td>
</tr>
<tr>
<td>MATH 160</td>
<td>3 cr</td>
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Second Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 211</td>
<td>3 cr</td>
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<tr>
<td>CHEM 213</td>
<td>1 cr</td>
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<tr>
<td>CHEM 232</td>
<td>2 cr</td>
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<tr>
<td>CHEM 234</td>
<td>2 cr</td>
</tr>
<tr>
<td>CHEM 301</td>
<td>3 cr</td>
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<tr>
<td>CHEM 302</td>
<td>3 cr</td>
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<tr>
<td>CHEM 391</td>
<td>1 cr</td>
</tr>
<tr>
<td>PHYS 111,112, 113, 114</td>
<td>8 cr</td>
</tr>
<tr>
<td>PHYS 211-212, 213,214</td>
<td>10 cr</td>
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Third Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIOL g432</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL g445, g447</td>
<td>6 cr</td>
</tr>
<tr>
<td>CHEM 341, 342</td>
<td>6 cr</td>
</tr>
<tr>
<td>CHEM 351-352</td>
<td>6 cr</td>
</tr>
</tbody>
</table>

Plus 8 additional upper-division (300-400 level) credits in chemistry, approved by the department and not to include CHEM g491. No more than 2 credits of CHEM 311 and 2 credits in g481-g482 may be used to satisfy these electives. If BIOL g445 and g447 sequence is taken, 3 credits may be used to satisfy elective credits. No more than 40 credits in chemistry will count toward graduation in this program.

Students pursuing a Bachelor of Arts in Chemistry should complete ENGL 101 and COMM 101 (Goal 2 of the General Education Requirements) during the freshman year and ENGL 102 (Goal 1) should be passed by, or during, the sophomore year. Goal 3 should be fulfilled by MATH 160 or 170 as early as possible. The other General Education Requirements (Goals 4 and 6-12) should be taken as credit load allows.
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 professions schools, and in the biotechnology industry.

Core Requirements

Students pursuing a Bachelor of Science degree must satisfy goals 1 and 2, two of goals 6, 7, and 8, and three of goals 9, 10, 11, and 12. Goal 10 may be satisfied by either 10A or 10B. Students must also satisfy the core requirements listed below, the requirements for one of the biochemistry tracks, and 12 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.

Electives

Choose a minimum of 16 credits, with at least 6 credits in Biological Sciences (Biol) and 6 credits in Chemistry (Chem). Advanced or experimental courses are acceptable. These courses satisfy the electives requirement only if they are not required for a specific Biochemistry track.

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.

First Year

- CHEM 111, 111L General Chemistry I, and Lab 5 cr
- CHEM 112, 112L General Chemistry II, and Lab 5 cr
- MATH 170 Calculus I 4 cr
- MATH 175 Calculus II 4 cr
- PHYS 111, 111L General Physics I, and Lab 4 cr
- PHYS 112, 112L General Physics II, and Lab 4 cr
- Subtotal: 24 cr

TOTAL: 95 cr

May elect to take CHEM 351 and 352 instead of CHEM 341 and 342.

**PHYS 211, 212, 213, 214 may be taken to fulfill the Physics requirement in the core curriculum.

Track 1: Biological Chemistry (13 cr)

- CHEM 211, 213 Inorganic Chemistry, and Lab 4 cr
- CHEM 331, 334 Organic Chemical Analysis, and Lab 4 cr
- CHEM 365, 366 Synthetic Methods, and Lab 4 cr
- CHEM 492 Seminar 1 cr

Track 2: Biochemistry and Molecular Biology (16 cr)

- BIOL 303, 303L, g404, 404L; or g433, 433L Animal, or Plant, or Microbial Physiology, and Lab 4 cr
- BIOL 343, 434L Microbial Diversity, and Lab 4 cr
- BIOL 444, 444L Molecular Biology, and Lab 4 cr
- BIOL 461 Advanced Genetics 3 cr
- BIOL 492 Seminar 1 cr

Track 3: Physiological Biochemistry (16 cr)

- BIOL 301, 301L Anatomy and Physiology, and Lab 4 cr
- BIOL 302, 302L Anatomy and Physiology, and Lab 4 cr
- PSCI 205 Drugs in Society 2 cr
- PSCI 301 Introduction to Pharmacology 3 cr
- PSCI 353 Introduction to Methods in Pharmaceutical Sciences 2 cr
- BIOL 492 Seminar 1 cr

Electives

Choose a minimum of 16 credits, with at least 6 credits in Biological Sciences (BIOL) and 6 credits in Chemistry (CHEM). Advanced or experimental courses are acceptable. These courses satisfy the electives requirement only if they are not required for a specific Biochemistry track.

BIOL 301, 301L Anatomy and Physiology, and Lab 4 cr
- BIOL 302, 302L Anatomy and Physiology, and Lab 4 cr
- BIOL 303, 303L Principles of Animal Physiology, and Lab 4 cr
- BIOL 324, 324L Developmental Biology and Lab 4 cr
- BIOL 404, 404L Plant Physiology, and Lab 4 cr
- BIOL 411K Molecular Biology Laboratory Methods 3 cr
- BIOL 415, 415L Human Neurobiology, and Lab 4 cr
- BIOL 417 Organic Evolution 3 cr
- BIOL 433, 433L Microbial Physiology, and Lab 4 cr
- BIOL 434, 434L Microbial Diversity, and Lab 4 cr
- BIOL 443 Endocrinology 3 cr
- BIOL 444, 444L Molecular Biology, and Lab 4 cr
- BIOL 449, 449R / PHAR 949, 994R Human Physiology, and Recitation 4 cr
- BIOL 451, 451L Immunology, and Lab 4 cr
- BIOL 456, 456R / PHAR 956, 956R Human Physiology II, and Recitation 4 cr
- BIOL 461 Advanced Genetics 3 cr
- BIOL 463, 463L Human Pathophysiology, and Lab 4 cr
- BIOL 473, 473L Applied and Environmental Microbiology, and Lab 4 cr
- BIOL 475 General Virology 3 cr
- BIOL 477 or 478 Bacterial or Animal Virology Laboratory 1 cr
- BIOL 481 and/or 482 Independent Problems (max 2 credits) 2 cr
- CHEM 211, 213 Inorganic Chemistry, and Lab 4 cr
- CHEM 311 and/or 312 Introduction to Research (max 2) 2 cr
- CHEM 331, 334 Instrumental Analysis, and Lab 4 cr
- CHEM 365, 366 Synthetic Methods, and Lab 4 cr
- CHEM 407* Modern Experimental Physical Chemistry 3 cr
- CHEM g411 Molecular Biology 3 cr
- CHEM g417 Organic Evolution 3 cr
- CHEM g433, g437 Environmental Chemistry, and Lab 3 cr
- CHEM g453*** Modern Experimental Physical Chemistry 3 cr

Electives

Choose a minimum of 16 credits, with at least 6 credits in Biological Sciences (BIOL) and 6 credits in Chemistry (CHEM). Advanced or experimental courses are acceptable. These courses satisfy the electives requirement only if they are not required for a specific Biochemistry track.

- BIOL 101, 101L Biology I, and Lab 4 cr
- BIOL 102, 102L Biology II, and Lab 4 cr
- BIOL 206 Cell Biology 3 cr
- BIOL 235, 235L General Microbiology 4 cr
- BIOL 358 Genetics 3 cr
- BIOL 437, CHEM 438 Experimental Biochemistry 1 cr
- BIOL/CHEM g445, 445L Biochemistry I 3 cr
- BIOL/CHEM g447, 447L Biochemistry II 3 cr
- BIOL/CHEM g448 Advanced Experimental Biochemistry 2 cr
- BIOL/CHEM g498 Seminar in Biochemistry 1 cr
- CHEM 111, 111L General Chemistry I, and Lab 5 cr
- CHEM 112, 112L General Chemistry II, and Lab 4 cr
- CHEM 232, 234 Quantitative Analysis, and Lab 4 cr
- CHEM 301, 303 Organic Chemistry I, and Lab 4 cr
- CHEM 302, 304 Organic Chemistry II, and Lab 4 cr
- CHEM 341* Topics in Physical Chemistry I 3 cr
- CHEM 342* Topics in Physical Chemistry II 3 cr
- MATH 170 Calculus I 4 cr
- MATH 175 Calculus II 4 cr
- PHYS 111, 111L General Physics I, and Lab 4 cr
- PHYS 112, 112L General Physics II, and Lab 4 cr
- CHEM 341 and 342.

**PHYS 211, 212, 213, 214 may be taken to fulfill the Physics requirement in the core curriculum.

First Year

- CHEM 111, 111L General Chemistry I, and Lab 5 cr
- CHEM 112, 112L General Chemistry II, and Lab 5 cr
- MATH 170 Calculus I 4 cr
- MATH 175 Calculus II 4 cr

Second Year

- CHEM 211 Inorganic Chemistry I 3 cr
- CHEM 213 Inorganic Chemistry I Lab 1 cr
- CHEM 232 Quantitative Analysis 2 cr
- CHEM 234 Quantitative Analysis Lab 2 cr
- CHEM 301 Organic Chemistry I 3 cr
- CHEM 302 Organic Chemistry II 3 cr
- CHEM 303 Organic Chemistry Lab I 1 cr
- CHEM 304 Organic Chemistry Lab II 1 cr
- PHYS 211-212 Engineering Physics 8 cr
- PHYS 213-214 Engineering Physics Lab 2 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.

First Year

- CHEM 111, 111L General Chemistry I, and Lab 5 cr
- CHEM 112, 112L General Chemistry II, and Lab 5 cr
- MATH 170 Calculus I 4 cr
- MATH 175 Calculus II 4 cr

Second Year

- CHEM 211 Inorganic Chemistry I 3 cr
- CHEM 213 Inorganic Chemistry I Lab 1 cr
- CHEM 232 Quantitative Analysis 2 cr
- CHEM 234 Quantitative Analysis Lab 2 cr
- CHEM 301 Organic Chemistry I 3 cr
- CHEM 302 Organic Chemistry II 3 cr
- CHEM 303 Organic Chemistry Lab I 1 cr
- CHEM 304 Organic Chemistry Lab II 1 cr
- PHYS 211-212 Engineering Physics 8 cr
- PHYS 213-214 Engineering Physics Lab 2 cr
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 111, 111L** General Chemistry I, and Lab 5 cr
- **CHEM 112, 112L** General Chemistry II, and Lab 4 cr
- **CHEM 211** Inorganic Chemistry I 3 cr
- **CHEM 213** Inorganic Chemistry I Lab 1 cr
- **CHEM 232** Quantitative Analysis 2 cr
- **CHEM 234** Quantitative Analysis Laboratory 2 cr
- **CHEM 301-302** Organic Chemistry I and II 6 cr
- **CHEM 303-304** Organic Chemistry Laboratory I and II 2 cr
- **MATH 170** Calculus I 4 cr
- **MATH 175** Calculus II 4 cr
- **PHYS 211-212** Engineering Physics 8 cr
- **PHYS 213-214** 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 the 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):

Teaching Major in Chemistry

Students wishing to pursue a teaching major in chemistry should make an appointment to meet with the Department Chair.

Fall/Spring

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 331* Instrumental Analysis</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 334* Instrumental Analysis Lab</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 351-352 Physical Chemistry</td>
<td>6</td>
</tr>
</tbody>
</table>

Fourth Year

- **BIOL g432** Biochemistry 3 cr
- **CHEM 363** Synthetic Methods 2 cr
- **CHEM 366** Synthetic Methods Lab 2 cr
- **CHEM g453** Modern Experimental Physical Chemistry 2 cr
- **CHEM g481-g482** Independent Problems 3 cr
- **CHEM g491** Seminar 1 cr

Suggested Schedule in B.S./M.S. Program

First Year (Junior year)

**Fall/Spring**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 331* Instrumental Analysis</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 334* Instrumental Analysis Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 351* Physical Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 352* Physical Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>MATH 360 Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>11</td>
</tr>
<tr>
<td><strong>TOTAL:</strong></td>
<td><strong>24 cr</strong></td>
</tr>
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</table>

* Must be completed by the end of the junior year.

Second Year (Senior year)

**Fall/Spring**

<table>
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<tbody>
<tr>
<td>BIOL g432 Biochemistry</td>
<td>3</td>
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<tr>
<td>CHEM 365 Synthetic Methods</td>
<td>2</td>
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<tr>
<td>CHEM 366 Synthetic Methods Lab</td>
<td>2</td>
</tr>
<tr>
<td>CHEM g407 Inorganic Chemistry I II</td>
<td>2</td>
</tr>
<tr>
<td>CHEM g453 Modern Experimental Physical Chemistry</td>
<td>2</td>
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<tr>
<td>CHEM 485 Senior Research</td>
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<td><strong>TOTAL:</strong></td>
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Summer

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<th>Course</th>
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<tbody>
<tr>
<td>CHEM 635 Master’s Research</td>
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<td><strong>TOTAL:</strong></td>
<td><strong>24 cr</strong></td>
</tr>
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</table>

Third Year (Graduate standing)

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<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CHEM 630 Advanced Analytical Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 671 Advanced Organic Chemistry</td>
<td>2</td>
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<tr>
<td>CHEM 610 Seminar</td>
<td>2</td>
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<tr>
<td>CHEM 635 Master’s Research</td>
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<tr>
<td>Electives</td>
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<tr>
<td><strong>TOTAL:</strong></td>
<td><strong>25 cr</strong></td>
</tr>
</tbody>
</table>

Minor in Chemistry

Required courses:

- **CHEM 111, 111L** General Chemistry I, and Lab 5 cr
- **CHEM 112, 112L** General Chemistry II, and Lab 4 cr
- **CHEM 211** Inorganic Chemistry I 3 cr
- **CHEM 213** Inorganic Chemistry I Lab 1 cr
- **CHEM 232** Quantitative Analysis 2 cr
- **CHEM 234** Quantitative Analysis Lab 2 cr
- **CHEM 301** Organic Chemistry I 3 cr
- **CHEM 302** Organic Chemistry II 3 cr
- **CHEM 303** Organic Chemistry Lab I 1 cr
- **CHEM 304** Organic Chemistry Lab II 1 cr

Approved upper-division electives in chemistry (excluding CHEM g400, CHEM g481-g482, and CHEM g491) 4 cr

**TOTAL:** 4 cr

Associate of Science in Chemistry

Students seeking an Associate of Science degree in Chemistry must complete the following:

General Education Goals for the Bachelor of Science

- **CHEM 102** Introduction to Organic and Biochemistry 3 cr
- **CHEM 103** Introduction to General, Organic and Biochemistry 3 cr
- **CHEM 111, 111L** General Chemistry I, and Lab 5 cr
- **CHEM 112, 112L** General Chemistry II, and Lab 4 cr
- **CHEM 232** Quantitative Analysis 2 cr
- **CHEM 234** Quantitative Analysis Lab 2 cr
- Electives to bring total to 64 cr variable

**TOTAL:** 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.

Chemistry Courses

- **CHEM 100 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. Satisfies Goal 5 of the General Education Requirements. S
- **CHEM 101 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 102. PREREQ: MATH 108 or equivalent. F, S
- **CHEM 102 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. PREREQ: CHEM 101 or CHEM 111 and CHEM 111L. COREQ: CHEM 103. F, S
- **CHEM 103 Introduction to General, Organic and Biochemistry Laboratory** 1 credit.
  Laboratory course introducing fundamental measurement techniques, methods and materials used in general, organic and biochemistry. PREREQ: CHEM 101 or CHEM 111 and CHEM 111L. COREQ: CHEM 102. F, S
CHEM 111 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 111L. PREREQ: MATH 143 or MATH 147 or equivalent. F, S
CHEM 111L General Chemistry I Lab 1 credit. Laboratory course to accompany General Chemistry I. PREREQ OR COREQ: CHEM 111. F, S
CHEM 112 General Chemistry II 3 credits. Introduction to kinetics, equilibrium, electrochemistry, and nuclear chemistry. May be repeated upon completion of CHEM 112L. PREREQ: CHEM 111 and CHEM 111L or equivalent and MATH 143 or MATH 147 or equivalent. F, S
CHEM 112L General Chemistry II Lab 1 credit. Laboratory course to accompany General Chemistry II. PREREQ OR COREQ: CHEM 112. F, S
CHEM 211 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 112 and CHEM 112L or permission of instructor. COREQ: CHEM 213. F
CHEM 213 Inorganic Chemistry I Laboratory 1 credit. Qualitative and quantitative inorganic chemistry, including: precipitation, acid/base and reduction/oxidation reactions in inorganic media, preparation and isolation of inorganic compounds, characterization techniques for inorganic compounds (e.g. magnetic susceptibility measurements, electrochemistry, UV-Vis). COREQ: CHEM 211 or permission of instructor. F
CHEM 232 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 112, CHEM 112L, or permission of instructor. S
CHEM 234 Quantitative Analysis Laboratory 2 credits. Laboratory experiments in gravimetric, volumetric, and colorimetric analysis. PREREQ: CHEM 112 and CHEM 112L. COREQ: CHEM 232 or permission of instructor. S
CHEM 301 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 112 and CHEM 112L or permission of instructor. F
CHEM 302 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 301 or permission of instructor. S
CHEM 303 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 301 or permission of instructor. F
CHEM 304 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 303. COREQ: CHEM 302 or permission of instructor. S
CHEM 311-312 Introduction to Research 1-2 credits each. Directed library and laboratory research. Courses may be repeated for up to 6 credits. F, S
CHEM 331 Instrumental Analysis 2 credits. Advanced quantitative analysis dealing chiefly with quantitative applications of instrumental methods. PREREQ: CHEM 232 and CHEM 234 or permission of instructor. F
CHEM 334 Instrumental Analysis Laboratory 2 credits. Laboratory course giving experience in fundamental operations of modern instrumental methods of analysis. PREREQ: CHEM 234 and CHEM 331 or permission of instructor. S
CHEM 341 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 112 and CHEM 112L, MATH 160 or MATH 170, PHYS 112 or PHYS 212, or permission of instructor. F, S
CHEM 342 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 341, or permission of instructor. F, S
CHEM 351 Physical Chemistry 3 credits. The fundamental principles of physical chemistry; thermodynamics, reaction kinetics, molecular structure, quantum theory, spectroscopy, and solution chemistry. PREREQ: CHEM 112, CHEM 112L, MATH 175, and PHYS 212, or permission of instructor. F
CHEM 352 Physical Chemistry 3 credits. The fundamental principles of physical chemistry; thermodynamics, reaction kinetics, molecular structure, quantum theory, spectroscopy, and solution chemistry. PREREQ: CHEM 351. S
CHEM 365 Synthetic Methods 2 credits. Practical aspects of chemical synthesis: preparation, purification, and spectral interpretation for organic and inorganic molecules. PREREQ: CHEM 211 and CHEM 304. F
CHEM 366 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 365. S
CHEM 391 Seminar 1 credit. A formal introduction to scientific presentations including a short student presentation on selected library or laboratory research. PREREQ: CHEM 301, 303 or permission of instructor. R1
CHEM g400 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 g407 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 211 and CHEM 352, or permission of instructor. F
CHEM g433 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 232 and CHEM 234 or permission of instructor. F
CHEM g437 Environmental Chemistry Laboratory 1 credits. Utilizes both structured and self-designed field and classroom experiments to emphasize principles of environmental chemistry. COREQ: CHEM 433 or permission of instructor. F
CHEM 438 Experimental Biochemistry 1 credit. Laboratory course including both qualitative and quantitative experiments. Cross-listed as BIOL 437. PREREQ OR COREQ: BIOL g432 or BIOL/Chem g438. F, S
CHEM g445 Biochemistry 1 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. Cross-listed as BIOL g445. PREREQ: BIOL 101 and CHEM 301. F
CHEM g447 Biochemistry II 3 credits. Functional continuation of g445. Lipid, amino acid, and nucleotide metabolism. Emphasis is on regulation of metabolism, metabolic dysfunctions, biochemical mechanisms of hormone action, biochemical genetics, protein synthesis, and metabolic consequences of genetic defects. Cross-listed as BIOL g447. PREREQ: BIOL/ CHEM g445. S
CHEM g448 Advanced Experimental Biochemistry 2 credits. Advanced laboratory projects designed to emphasize techniques of qualitative and quantitative biochemical analysis. Cross-listed as BIOL g448. PREREQ: BIOL 437/ CHEM 438. COREQ: BIOL g447. S
CHEM g533 Modern Experimental Physical Chemistry 2 credits. Magnetic, optical and electrical properties of materials, calorimetry, voltammetry, optical and laser spectroscopic techniques. PREREQ: CHEM 334 and CHEM 352. F
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 analyze 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 201 Business and Professional Speaking 3 cr
- COMM 208 Group Communication 3 cr
- COMM 305 Argumentation and Debate 3 cr
- COMM 308 Persuasion 3 cr
- COMM g408 Communication Theory 3 cr
- COMM g436 Rhetorical Criticism 3 cr
- COMM g437 Rhetorical Theory 3 cr
- COMM g441 Interpersonal Communication 3 cr

**Required Organizational Communication Emphasis Courses:**
- COMM 254 Organizational Communication 3 cr
- COMM g452 Conflict Management 3 cr
- COMM g454 Management Communication 3 cr

**Organizational Communication Emphasis Electives:** (Must take 12 credits from the following):
- COMM 313 Academic Internship 1-6 cr
- COMM 355 Nonverbal Communication 3 cr
- COMM g440 Gender and Communication 3 cr
- COMM g442 American Rhetoric and Public Address 3 cr
- COMM g447 Rhetoric of Hitler and Churchill 3 cr
- COMM g451 Recent Rhetorical Issues 3 cr

**TOTAL: 45 cr**

**Emphasis in Rhetorical Studies**

**Required Major Core Courses:**
- COMM 201 Business and Professional Speaking 3 cr
- COMM 208 Group Communication 3 cr
- COMM 305 Argumentation and Debate 3 cr
- COMM 308 Persuasion 3 cr
- COMM g408 Communication Theory 3 cr
- COMM g436 Rhetorical Criticism 3 cr
- COMM g437 Rhetorical Theory 3 cr
- COMM g441 Interpersonal Communication 3 cr

**Required Rhetorical Studies Emphasis Courses:**
- COMM g442 American Rhetoric and Public Address 3 cr
- COMM g447 Rhetoric of Hitler and Churchill 3 cr
- COMM g451 Recent Rhetorical Issues 3 cr

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**Department of Communication and Rhetorical Studies**

Chair and Professor: DiSanza

Professors: Gribas, Legge, Loeds

Associate Professor: Partlow Lefevre

Associate Lecturer: M. Eckert

Lecturers: Broadhead, Corrigan, Czerkapski, Dixon, T. Eckert, Haan, Leek, Sowell, Underwood

The Department of Communication and Rhetorical Studies administers a Bachelor of Arts or Bachelor of Science degree in Communication and Rhetorical Studies, with emphases in Organizational Communication or Rhetorical Studies; an Associate of Arts degree in Communication and Rhetorical Studies; and minors in Organizational Communication and Rhetorical Studies.
Rhetorical Studies Electives (Must take 12 credits from the following):
COMM 254 Organizational Communication 3 cr
COMM 313 Internship 1-6 cr
COMM g440 Gender and Communication 3 cr
COMM g452 Conflict Management 3 cr
COMM g454 Management Communication 3 cr
TOTAL: 21 cr

Associate of Arts in Communication and Rhetorical Studies

Students seeking an Associate of Arts degree in Communication and Rhetorical Studies must complete the following:

All of the General Education Goals (10A and 10B) 37-53* cr
COMM 101 Principles of Speech 3 cr
COMM 111 Speech Practicum 1-4 cr
COMM 201 Business and Professional Speaking 3 cr
COMM 208 Group Communication 3 cr
THEA 118 Oral Interpretation: Textual Analysis 3 cr
THEA 131 Voice and Diction 2 cr
Additional COMM elective 3 cr
Electives to bring total to 64 cr variable
TOTAL: 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 math斯。
1. Learn how economists interpret and apply economic data to understand and predict economic events.

2. Develop an ability to objectively and critically identify and analyze economic issues.

3. Acquire an understanding of the theory and technical analysis required for graduate study.

One way or another, economic forces affect every individual, and thus an understanding of economics helps individuals cope with and adapt to the rapidly changing global marketplace. Most issues discussed at local, domestic, and international centers have an economic component. As our society moves through the twenty-first century, issues such as the role and the size of the government, to what extent a nation’s borders remain open to the foreign sector, the trade-off between the quality of the environment and the quantity of production, and the distribution of a country’s income between labor and other resources will continue to dominate the national agenda. Indeed, the technological advances of the past century, which could have alleviated problems of scarcity and the need to make difficult decisions, seem only to have exacerbated the trade-offs nations face and the competing uses for the world’s limited resources.

While it is true that to be hired with the title of economist generally requires graduate study, there are ample employment opportunities for those who achieve a baccalaureate degree. An economics degree is an excellent background for careers in banking, real estate, litigation analysis, planning, government, bond trading, financial analysis, teaching and a host of other employment opportunities. An economics background is also excellent preparation for graduate study in economics, law, business and international relations.

The Economics Department offers programs leading to Bachelor of Arts and Bachelor of Science degrees. A student may choose an option in economic theory, applied economics, or law and economics.

**Economic Theory**

This option provides a broad-based background to the many specialties within the realm of economics. It provides a comprehensive overview to those who plan to pursue graduate study in Economics. It is also appropriate as a terminal degree for those who seek a diverse background in Economics.

**Applied Economics**

This option is designed for students wishing to major in business economics, political economy, or any other applied area approved by the student’s departmental advisor.

**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.

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**Bachelor of Arts or Bachelor of Science in Economics**

The following courses are required in addition to the General Education Requirements for the B.A. or B.S. degree. Recommended electives for economics majors are political science, finance, or mathematics depending upon the student’s specific interests.

**Option 1— Economic Theory**

- ECON 201-202: Principles of Macro- and Microeconomics (6 cr)
- ECON 301: Macroeconomic Theory (3 cr)
- ECON 302: Microeconomic Theory (3 cr)
- ECON 306: History of Economic Doctrines (3 cr)
- ECON 384: Mathematics for Economics (3 cr)
- ECON g474: Current Economic Problems (3 cr)
- ECON g485: Econometrics (3 cr)
- MATH 170: Calculus I (4 cr)
- MATH 253: Introduction to Statistics (3 cr)
- Plus 12 additional hours of upper-division courses in economics and 6 additional hours in advisor approved courses.

**Option 2— Applied Economics**

- ECON 201-202: Principles of Macro- and Microeconomics (6 cr)
- ECON 301: Macroeconomic Theory (3 cr)
- ECON 302: Microeconomic Theory (3 cr)
- ECON 474: Current Economic Problems (3 cr)
- ECON g485: Econometrics (3 cr)
- MATH 160: Applied Calculus (3 cr)
- MATH 170: Calculus I (4 cr)
- MATH 253: Introduction to Statistics (3 cr)
- Plus 12 additional upper-division economics credits* and a minor in an outside field.

* All electives shall be selected by the student with prior approval from a Department of Economics faculty member.

**Option 3— Law and Economics**

Students choosing this option must obtain a B.A. rather than a B.S., and must satisfy Goal 8 with PHIL 103.

**Required Courses**

- ECON 201: Principles of Macroeconomics (3 cr)
- ECON 202: Principles of Microeconomics (3 cr)
- ECON 301: Macroeconomic Theory (3 cr)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ECON 302</td>
<td>Microeconomic Theory</td>
<td>3 cr</td>
</tr>
<tr>
<td>ECON 474</td>
<td>Current Economic Problems</td>
<td>3 cr</td>
</tr>
<tr>
<td>ECON 482</td>
<td>Internship*</td>
<td>1-9 cr</td>
</tr>
<tr>
<td>ECON 485</td>
<td>Econometrics</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 401</td>
<td>Advanced Composition</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHIL 201</td>
<td>Introduction to Logic</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 160</td>
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<tr>
<td>MATH 170</td>
<td>Calculus I</td>
<td>4 cr</td>
</tr>
<tr>
<td>MATH 253</td>
<td>Introduction to Statistics</td>
<td>3 cr</td>
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**Plus 18 credits chosen from the following:**

- ANTH 478 Federal Indian Law 3 cr
- ANTH 497 Tribal Governments 3 cr
- ENGL 410 Writing Internship (max 3 credits) 3 cr
- HCA 375 Health Law and Bioethics 3 cr
- M S 440 Media Law and Ethics 3 cr
- MGT 461 Business Law 3 cr
- MGT 480 Labor and Employment Law 3 cr
- PIR 450 Ethical Theory 3 cr
- POLS 342 American Legal Systems 3 cr
- POLS 345 Jurisprudence and Legal Systems 3 cr
- POLS 442 Constitutional Law 3 cr
- POLS 443 Constitutional Law 3 cr
- PSYC g463 Clinical Psychology and the Law 3 cr

**Plus 12 additional hours of upper division economics courses (excluding additional ECON 482 credits)**

*Internship must be with a member of the legal profession.*

**Economics Minor**

**Required Courses:**

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 201-202</td>
<td>Principles of Macroe- and Microeconomics</td>
<td>6 cr</td>
</tr>
<tr>
<td>ECON 301</td>
<td>Microeconomic Theory</td>
<td>3 cr</td>
</tr>
<tr>
<td>ECON 302</td>
<td>Microeconomic Theory</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

**Plus 9 additional upper-division economics credits.*

**TOTAL: 21 cr**

* All electives shall be selected by the student with prior approval from a Department of Economics faculty member.

**Economics Courses**

The following courses satisfy Goal 11 of the General Education Requirements: ECON 100, ECON 201, ECON 202.

**ECON 100 Economic Issues 3 credits.** Introduction to current economic problems as they affect such matters as inflation, unemployment, discrimination, war, peace, taxes, retirement, welfare, education, profits, poverty, pollution, and the quality of life. This course may not be taken if both ECON 201 and 202 have been taken. Satisfies Goal 11 of the General Education Requirements. F, S, Su

**ECON 201 Principles of Macroeconomics 3 credits.** Introduction to economic analysis, including the structure, processes, and problems of modern economic society. Satisfies Goal 11 of the General Education Requirements. F, S, Su

**ECON 202 Principles of Microeconomics 3 credits.** Introduction to economic analysis, including the structure, processes, and problems of modern economic society. Satisfies Goal 11 of the General Education Requirements. F, S, Su

**ECON 301 Macroeconomic Theory 3 credits.** Techniques of measuring aggregate economic activity including theories of general equilibrium. PREREQ: ECON 201 and ECON 202. F

**ECON 302 Microeconomic Theory 3 credits.** Theory of partial equilibrium, including economics of the firm, price theory, competition, monopoly, and linear processes. PREREQ: ECON 201 and ECON 202. S

**ECON 303 Economics of Health Care 3 credits.** Study of the economics of the health care sector. The class will focus on the allocation of resources to health care, financing, and distribution of health care services. PREREQ: ECON 201 and ECON 202. S

**ECON 306 History of Economic Doctrines 3 credits.** Survey of the development of economic thought from early times to the present, including doctrines developed by Aristotle, Aquinas, Smith, Malthus, Ricardo, Marx, Mill, Marshall, Veblen, and Keynes. PREREQ: ECON 201 and ECON 202. S

**ECON 310 Money and Banking 3 credits.** Principles of money and credit, and government controls of monetary institutions. History and organization of the money and banking systems of the United States. PREREQ: ECON 201 and ECON 202. F

**ECON 313 International Economics 3 credits.** Study of the principles and practices of international trade including the historical and economic background of foreign trade tariffs, foreign exchange, international finance, international balance of payments, and contemporary problems and policies in the field of foreign trade. PREREQ: ECON 201 and ECON 202. F

**ECON 331 Economic History 3 credits.** The origin and development of modern economic institutions and the study of economic forces which have contributed to this development. PREREQ: ECON 201 and ECON 202. F

**ECON 332 Economic Development 3 credits.** Theories and principles of economic development, characteristics, and problems of underdeveloped and developing countries, alternative techniques and policies for the promotion of growth and development. PREREQ: ECON 201 and ECON 202. D

**ECON 333 Money and Banking 3 credits.** Principles of money and credit, and government controls of monetary institutions. History and organization of the money and banking systems of the United States. PREREQ: ECON 201 and ECON 202. F

**ECON 334 International Economics 3 credits.** Study of the principles and practices of international trade including the historical and economic background of foreign trade tariffs, foreign exchange, international finance, international balance of payments, and contemporary problems and policies in the field of foreign trade. PREREQ: ECON 201 and ECON 202. S

**ECON 338 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 201 and ECON 202. F

**ECON 341 Labor Economics 3 credits.** History of the American labor movement and the structure and functioning of the labor market. PREREQ: ECON 201 and ECON 202. D

**ECON 351 Business Cycles 3 credits.** Introduction to national income analysis and an analytical presentation of theories of fluctuations in general economic activity. Study of the general problems involved in forecasting economic fluctuations. PREREQ: ECON 201 and ECON 202. D

**ECON 352 Environmental Economics 3 credits.** An introduction to the economic principles relevant to pollution control, the use of exhaustible natural resources, and conservation. Federal, state and local policy and legislation concerning the environment is examined. PREREQ: ECON 201 and ECON 202. S

**ECON 384 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 201 and 202 or permission of instructor. S

**ECON 404 Game Theory 3 credits.** A mathematical modeling technique used to describe the behavior of interdependent economic agents. We define Nash equilibria in games with varying information structures: normal and extensive form games of perfect, imperfect, and incomplete information. PREREQ: ECON 201 and ECON 202. F

**ECON 409 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 201 and ECON 202. D

**ECON 411 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 institutional perspective. PREREQ: ECON 201 and ECON 202. D

**ECON 433 Economic Development 3 credits.** Theories and principles of economic development, characteristics, and problems of underdeveloped and developing countries, alternative techniques and policies for the promotion of growth and development. PREREQ: ECON 201 and ECON 202. D

**ECON 439 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 201 and ECON 202. D

**ECON 472 Comparative Economic Systems 3 credits.** Study and comparison of the theories and practices found in various economic systems. Includes a study of both the free market and socialist planning. PREREQ: ECON 201 and ECON 202. D

**ECON 474 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 482 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 485 Econometrics 3 credits.** The application of statistical and mathematical methods to the analysis of economic data, with a purpose of giving empirical content to economic theories and verifying them or refuting them. PREREQ: ECON 201. ECON 202 and MATH 253. F

**ECON 481 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 201-202** Principles of Macroe- and Microeconomics 6 cr

**ECON 301** Microeconomic Theory 3 cr

**ECON 302** Microeconomic Theory 3 cr

**ECON 310** Microeconomic Theory 3 cr

**ECON 313** International Economics 3 credits

**ECON 331** Labor Economics 3 credits

**ECON 351** Business Cycles 3 credits

**ECON 352** Environmental Economics 3 credits

**ECON 384** Mathematics for Economics 3 credits

**ECON 404** Game Theory 3 credits

**ECON 409** Industrial Organization 3 credits

**ECON 411** Political Economy 3 credits

**ECON 433** Economic Development 3 credits

**ECON 439** State and Local Finance 3 credits

**ECON 472** Comparative Economic Systems 3 credits

**ECON 474** Senior Seminar 3 credits

**ECON 482** Internship 1-9 credits

**ECON 485** Econometrics 3 credits

**ECON 481** Independent Studies 1-3 credits
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 101) or Introduction to Ethics (PHIL 103) to meet General Education Requirement Goal 8. 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.
Option 1—General

Category I—Literature (27 credits)

Required:
- ENGL 211 Introduction to Literary Analysis 3 cr
- ENGL 491 Senior Seminar 3 cr

Plus two courses from the following, one of which must be from 267/268 or 277/278:
- ENGL 257 Survey of World Literature I 3 cr
- ENGL 258 Survey of World Literature II 3 cr
- ENGL 267 Survey of English Literature I 3 cr
- ENGL 268 Survey of English Literature II 3 cr
- ENGL 277 Survey of American Literature I 3 cr
- ENGL 278 Survey of American Literature II 3 cr

Plus one course from the following:
- ENGL 321 Genre Studies in Drama 3 cr
- ENGL 322 Genre Studies in Poetry 3 cr
- ENGL 323 Genre Studies in Prose Fiction 3 cr
- ENGL 324 Genre Studies in Prose Non-Fiction 3 cr
- ENGL 327 Special Topics in Genre 3 cr

Plus two courses from the following:
- ENGL g461 Classical Literature 3 cr
- ENGL g462 Medieval Literature 3 cr
- ENGL g463 Renaissance Literature 3 cr
- ENGL g464 Seventeenth-Century Literature 3 cr
- ENGL g465 Eighteenth-Century Literature 3 cr
- ENGL g466 Early Nineteenth-Century Literature 3 cr
- ENGL g467 Late Nineteenth-Century Literature 3 cr
- ENGL g468 Early Twentieth-Century Literature 3 cr
- ENGL g469 Contemporary Literature 3 cr

Plus one course from the following:
- ENGL g472 Proseminar in a Major Literary Figure 3 cr
- ENGL g473 Chaucer 3 cr
- ENGL g474 Milton 3 cr
- ENGL g476 Shakespeare 3 cr

Plus one course from the following:
- ENGL 328 Gender in Literature 3 cr
- ENGL 356 Ethnicity in Literature 3 cr
- ENGL g470 Post-Colonial Literature 3 cr
- ENGL g489 American Indian Literature 3 cr

Category II—Language Studies (6 credits)

Required:
- ENGL 280 Grammar and Usage 3 cr
- OR
- ENGL 281 Introduction to Language Studies 3 cr

Plus one course from the following:
- ENGL g480 Varieties of American English 3 cr
- ENGL g481 Studies in Grammar 3 cr
- ENGL g485 Linguistic Analysis 3 cr
- ENGL g486 Old English 3 cr
- ENGL g487 History of the English Language 3 cr

Category III—Writing (3 credits)

Required:
- ENGL 301 Writing About Literature 3 cr

Category IV—Electives (9 credits)

An additional 9 credits of English, of which at least 6 credits must be in upper-division courses.

GENERAL ENGLISH MAJOR TOTAL: 45 cr

Option 2—Professional Writing

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

Category I—Composition and Communication (33 credits)

Required:
- ENGL 280 Grammar and Usage 3 cr
- OR
- ENGL 281 Introduction to Language Studies 3 cr

Plus one course from the following:
- ENGL 301 Writing About Literature 3 cr
- ENGL 307 Professional and Technical Writing 3 cr
- ENGL 308 Business Communications 3 cr
- ENGL g401 Advanced Composition and Prose Analysis 3 cr
- ENGL 410 Writing Internship 3 cr
- PHIL 201 Introduction to Logic 3 cr

Plus one course from the following:
- ENGL 206 Creative Writing Workshop 3 cr
- ENGL 306 Creative Writing Workshop 3 cr
- ENGL g406 Advanced Creative Writing Workshop 3 cr

Plus three courses from the following:
- ENGL 410 Writing Internship (3 further credits) 3 cr
- M C 215 Graphic Design 3 cr
- OR
- M C 415 Advanced Graphic Design 3 cr

Category II—Literature (12 credits)

Required:
- ENGL 211 Introduction to Literary Analysis 3 cr

Plus one course from the following:
- ENGL 257 Survey of World Literature I 3 cr
- ENGL 267 Survey of English Literature I 3 cr

Plus one course from the following:
- ENGL 258 Survey of World Literature II 3 cr
- ENGL 268 Survey of English Literature II 3 cr

Plus one course from the following:
- ENGL 277 Survey of American Literature I 3 cr
- ENGL 278 Survey of American Literature II 3 cr

Plus one course from the following:
- ENGL 321 Genre Studies in Drama 3 cr
- ENGL 322 Genre Studies in Poetry 3 cr
- ENGL 323 Genre Studies in Prose Fiction 3 cr
- ENGL 324 Genre Studies in Prose Non-Fiction 3 cr

Plus one course from the following:
- ENGL 257 Survey of World Literature I 3 cr
- ENGL 267 Survey of English Literature I 3 cr

Professional Writing English Major Total: 45 cr

Option 3—Creative Writing

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

Category I—Composition and Communication (33 credits)

Required:
- ENGL 206 Creative Writing Workshop 3 cr
- ENGL 280 Grammar and Usage 3 cr
- OR
- ENGL 281 Introduction to Language Studies 3 cr

Plus one course from the following:
- ENGL 301 Writing About Literature 3 cr
- ENGL 306 Creative Writing Workshop 3 cr
- ENGL g401 Advanced Composition and Prose Analysis 3 cr
- ENGL g406 Advanced Creative Writing Workshop 3 cr
- ENGL 448 Senior Creative Project 3 cr

Plus one course from the following:
- ENGL 307 Professional and Technical Writing 3 cr
- ENGL 308 Business Communications 3 cr

Plus one course from the following:
- ENGL g401 Advanced Composition and Prose Analysis 3 cr
- ENGL g406 Advanced Creative Writing Workshop 3 cr
- ENGL g480 Studies in Grammar 3 cr
- ENGL g485 Linguistic Analysis 3 cr
- ENGL g487 History of the English Language 3 cr

Bachelor of Arts in English

Students who wish to major in English will select the General Option, Professional Writing Option, or Creative Writing Option. Each option requires completion of 45 semester hours as specified (excluding lower division composition courses—ENGL 90, 101, 102, 103, 105).
Ensemble presentations or as preparation for professional electives to enhance their studies in other community at large.

Required: ENGL 211 Introduction to Literary Analysis

Plus one course from the following:
- ENGL 257 Survey of World Literature I 3 cr
- ENGL 267 Survey of English Literature I 3 cr
- ENGL 277 Survey of American Literature I 3 cr

Plus one course from the following:
- ENGL 258 Survey of World Literature II 3 cr
- ENGL 268 Survey of English Literature II 3 cr
- ENGL 278 Survey of American Literature II 3 cr

Plus one course from the following:
- ENGL 321 Genre Studies in Drama 3 cr
- ENGL 322 Genre Studies in Poetry 3 cr
- ENGL 323 Genre Studies in Prose Fiction 3 cr
- ENGL 324 Genre Studies in Prose Non-Fiction 3 cr

CATEGORICAL WRITING

ENGLISH MAJOR TOTAL: 45 cr

Each student in this option will be assigned a major advisor and a committee composed of members of the creative writing program. This committee will be responsible for evaluating the student’s creative project in the genre of the student’s choice. In addition, each student will be required to present the project material in public performance, as appropriate, to the community at large.

Minors 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 90, 101, 102, and 105—do not count toward completion of these minors.

Minor in English: General

Twenty-one hours of credit in English, 12 of which must be in upper division courses, including either ENGL 301 or ENGL 307.

Minor in English: Writing

Twenty-one hours of credit in English, including ENGL 280 or 281, 301, and 487, plus four other courses, of which at least two must be upper-division, from among the following courses: ENGL 107, 206, 306, 307, g401, g406, g481, g485, PHIL 201.

Minor in English: Creative Writing

A minimum of twenty-one (21) hours of credit in English, including at least one of the following courses: ENGL 206, 306, or 406; twelve (12) credits must be earned in upper-division courses, three (3) of which must be from ENGL 448 Senior Creative Writing Project.

Associate of Arts in English

Students seeking an Associate of Arts degree in English must complete the following:

All General Education Goals (10A and 10B)

ENGL 101 English Composition 3 cr
ENGL 102 Critical Reading and Writing 3 cr
ENGL 211 Introduction to Literary Analysis 3 cr
ENGL 280 Grammar and Usage 3 cr
ENGL 281 Introduction to Language Studies 3 cr

Choose three courses from:
- ENGL 267 Survey of English Literature I 3 cr
- ENGL 268 Survey of English Literature II 3 cr
- ENGL 277 Survey of American Literature I 3 cr
- ENGL 278 Survey of American Literature II 3 cr

Two additional 3-credit English courses (these may include courses from the above list but may not include lower division composition courses) 6 cr
Electives to bring total to 64 cr variable

TOTAL: 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.

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.

Prerequisites and Standards

Students are encouraged to complete ENGL 101 (or its equivalent) before enrolling in other English courses. At least one semester of lower-division literature is prerequisite for 300-level literature courses; nine hours of course work in English (excluding lower-division composition courses) plus junior or senior standing is prerequisite for all 400-level literature courses; all upper-division language courses have ENGL 281 as a prerequisite (ENGL 280 is the prerequisite for ENGL 481). In general, students may take the second half of a two-semester literature sequence without having taken the first. To graduate as an English major, or with an English minor, a student must maintain at least a 2.25 grade point average in courses within the English curriculum.

Placement in English Composition Courses

Regulations and procedures governing student placement in the composition-course sequence are summarized under General Education Requirements, Goal 1. Students should consult with the Director of Composition concerning applicability toward Goal 1 requirements of writing courses taken at other institutions.

English Composition and Language Courses

ENGL 90 Basic Writing 0 credits (3 credit equivalent). For students not meeting ENGL 101 placement requirements. Prepares students for ENGL 101 by addressing fundamentals at sentence, paragraph, and essay levels, with emphasis on student’s own writing. Graded S/U. F, S, Su
ENGL 100 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 101 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, W

ENGL 102 Critical Reading and Writing 3 credits. Writing essays based on readings. Focus on reading research methods; gathering, evaluating, analyzing, and synthesizing ideas and evidence; documentation. Satisfies Goal 1 of the General Education Requirements when passed with at least a C- grade. PREREQ: ENGL 101 or equivalent. F, S, Su

ENGL 105 Writing Laboratory 1-3 credits. Composition course designed for students who transfer from quarter-system schools and who are deficient in one or more hours in English composition credits. PREREQ: Permission of the Director of Composition. F, S, Su

ENGL 107 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. Cross-listed as ANTH 107 and LANG 107. S

ENGL 206 Creative Writing Workshop 3 credits. Introduction to one or more forms of creative writing. May be repeated for up to 6 credits with permission of department. R 1

ENGL 280 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 281 Introduction to Language Studies 3 credits. Introduction to basic concepts and models for the study of English phonology, morphology, syntax, and lexis. F, S

ENGL 301 Writing About Literature 3 credits. Academic discourse in English Studies. Students read examples of secondary essays, practice writing for an academic audience, and develop longer essays and more complex issues in writing. PREREQ: 60 credits including ENGL 211. F, S

ENGL 306 Creative Writing Workshop 3 credits. Advanced training in one or more of the forms of creative writing. May be repeated for up to 6 credits with permission of department. PREREQ: ENGL 206 or equivalent. R 1

ENGL 307 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 102. F, S

ENGL 308 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 102. F, S, S

ENGL 333 Teaching Writing One-on-One 3 credits. Theory and practice in individualized writing instruction; includes readings, class discussions, research and supervised tutoring. Emphasis on strategies for addressing particular problems of inexperienced, ESOL, and learning disabled writers. PREREQ: Permission of instructor. F

ENGL 367 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. Cross-listed as ANTH 367. PREREQ: ANTH/LANG/ENGL 107. D

ENGL g401 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 301, ENGL 307 or ENGL 308. R 2

ENGL g406 Advanced Creative Writing Workshop 3 credits. Production and discussion of student writing. Study in a specific genre with emphasis on longer works. Undergraduate course may be repeated for up to 6 credits. PREREQ: ENGL 306 or permission of instructor. R 1

ENGL g409 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. S

ENGL g410 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 301, ENGL 307, or ENGL 308. Graded S/U. F, S

ENGL g431 Teaching and Writing Projects: Special Topics 3 credits. 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 g448 Senior Creative Project 3 credits. Consultation course for creative writing majors and minors. The student produces and revises a substantial body of creative writing, reads relevant texts, writes a critical essay, and gives a public reading. D

ENGL g480 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 influences of non-English immigrant languages on development of American English. Field-work studying the Snake River dialects of Idaho. Cross-listed as ANTH g480. PREREQ: ANTH/ENGL/LANG 107 or ENGL 280 or ENGL 281. D

ENGL g481 Studies in Grammar 3 credits. Focus on the study of transformational-generative grammar and its application to sentence level problems. PREREQ: ENGL 280. R 2

ENGL g484 Special Topics in Linguistics 3 credits. Rotating topics in different areas of linguistics. Consult current schedule of classes for exact course being taught. Cross-listed as ANTH g484 and LANG g484. PREREQ: ANTH/ENGL/LANG 107 or ENGL 280 or ENGL 281. D

ENGL g485 Linguistic Analysis 3 credits. Advanced topics course in the techniques of language analysis. Examples are phonology and morphology, semantics, or rhetorical grammar. May be repeated for up to 6 credits. PREREQ: ENGL 281. R 2

ENGL g486 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. R 2

ENGL g487 History of the English Language 3 credits. Study of the linguistic and socio-political changes and developments in the English language. R 2

ENGL g488 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 use. Cross-listed as ANTH g450. PREREQ: ANTH 107, ENGL 280 or ENGL 281, or permission of instructor. F

ENGL g497 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

Literature Courses

ENGL 110 Introduction to Literature 3 credits. Introduction to the critical reading of various literary genres, with attention to the interpretation and evaluation of representative texts. Satisfies Goal 7 of the General Education Requirements. F, S, Su

ENGL 115 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. Satisfies Goal 7 of the General Education Requirements. F, S

ENGL 126 Art of Film 1.3 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. Satisfies Goal 6 of the General Education Requirements. S

ENGL 211 Introduction to Literary Analysis 3 credits. Introduction to major critical and theoretical approaches to literature. Includes close reading of various literary forms and reading of critical or theoretical works. Students engage in a variety of writing tasks. Students will be introduced to the use of secondary sources in writing and to MLA documentation style. PRE- REQ: English 102 or equivalent. F, S

ENGL 212 Introduction to Folklore/Oral Tradition 3 credits. Folklore genres and folk groups,
ENGL 257 Survey of World Literature I (Beginnings through 16th Century) 3 credits. Examination of major works and authors in historical perspective, with emphasis upon literary and cultural backgrounds. Satisfies Goal 7 of the General Education Requirements. R1

ENGL 258 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. Satisfies Goal 7 of the General Education Requirements. R1

ENGL 267 Survey of English 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 268 Survey of English 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 277 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 278 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 305 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 126 or permission. D

ENGL 321 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 322 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. Emphasis on lyric poetry. R2

ENGL 323 Genre Studies in Prose 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 324 Genre Studies in Prose 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 327 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.

ENGL 328 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 341 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 348 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 353 The West in American Literature 3 credits. Survey of the literature of Western America since 1800. D

ENGL 356 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 433 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: GOAL 1, ENGL 211 and ENGL 281, plus 3 additional hours of English. F

ENGL 440 Philosophy and Literature 3 credits. Reflections on the relation between poetic and speculative discourse. Topics include forms of consciousness, temporality and narrativity, metaphysics of genre. R2

ENGL 453 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. Cross-listed as ANTH 453. PREREQ: Goal 1. R2

ENGL 455 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. Cross-listed as LANG 415. May be repeated for up to 6 credits with different content. R3

ENGL 456 Comparative Literature 3 credits. The analysis of ideas, problems, and techniques common to important writers of various national literatures. R3

ENGL 461 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 462 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 463 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 464 Seventeenth-Century Literature 3 credits. Study of the major literature of the seventeenth century and its background, with emphasis upon the development of English or American or other literature of the period. R2

ENGL 465 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 466 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 467 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 468 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 469 Contemporary Literature 3 credits. Study of recent major literature and its background, with emphasis upon English or American or other literature of the period. R2

ENGL 470 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 472 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 473 Chaucer 3 credits. Intensive study of selected works of Chaucer. D

ENGL 474 Milton 3 credits. Intensive study of selected works of Milton. D

ENGL 476 Shakespeare 3 credits. Intensive study of selected works of Shakespeare. R1

ENGL 477 Shakespeare in Performance 2 credits. Intensive study of selected works by Shakespeare, with special emphasis placed upon performance issues. Includes field trip to attend live dramatic productions of Shakespearean plays. D

ENGL 490 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. Cross-listed as ANTH 490. R1

ENGL 491 Senior Seminar 3 credits. A seminar which exposes students to a range of critical and theoretical approaches to literature. Students formulate research problems and incorporate the results of their research into their own writing. Among the course requirements are a seminar paper and an oral presentation. PREREQ: ENGL 301 and 6 additional hours of upper-division English. F, S

ENGL 492 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

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.

Option 1 - Traditional Major

Required courses:
PHIL 201 Introduction to Logic 3 cr
PHIL 305 History of Philosophy: Greek Reason and Christian Faith 3 cr
PHIL 315 History of Philosophy: Rationalism and Empiricism 3 cr
PHIL g450 Ethical Theory 3 cr
PHIL g460 Theory of Knowledge 3 cr
PHIL 492 Senior Tutorial 3 cr

Plus 12 additional hours of philosophy electives.

Option 2 - Pre-law Emphasis

Required courses:
PHIL 201 Introduction to Logic 3 cr
PHIL 305 History of Philosophy: Greek Reason and Christian Faith 3 cr
PHIL 353 Philosophy of Law 3 cr
PHIL g450 Ethical Theory 3 cr
PHIL g460 Theory of Knowledge 3 cr
PHIL 492 Senior Tutorial 3 cr

Plus one course from the following:
PHIL 355 Political and Social Philosophy 3 cr
POLS 313 Introduction to Political Philosophy 3 cr
POLS g418 Topics in Political Theory 3 cr
POLS g820 Contemporary Political Theory 3 cr

Plus one course from the following:
POLS 249 Introduction to Criminal Law 3 cr
POLS 342 American Legal System 3 cr
POLS 345 Jurisprudence 3 cr
POLS g422 Constitutional Law 3 cr
POLS g443 Constitutional Law 3 cr

Plus six additional hours of philosophy electives.

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 210 Introduction to Asian Philosophy 3 cr
PHIL 220 Philosophical Issues in Religion 3 cr
PHIL 225 Philosophy and the Old Testament 3 cr
PHIL 325 Philosophy of Mind 3 cr

Plus one of the following:
HIST 252 East Asian History 3 cr
HIST 254 Middle Eastern Civilization 3 cr
SOC 368 The Sociology of Religion 3 cr

Philosophy Courses

PHIL 101 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 problems approach. Satisfies Goal 8 of the General Education Requirements. F, S

PHIL 103 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. Satisfies Goal 8 of the General Education Requirements. F, S

PHIL 201 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 identify, analyze, construct, and evaluate everyday arguments. R1

PHIL 210 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. R2

PHIL 220 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 225 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 230 Bioethics 3 credits. An examination of ethical issues that arise in medical practice and biotechnology. Includes an overview of ethical theories and principles. F, S, Su

PHIL 305 History of Philosophy: Greek Reason and Christian Faith 3 credits. Philosophical readings from the pre-Socratic 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 315 History of Philosophy: Rationalism and Empiricism 3 credits. Readings in philosophy from Descartes to Hegel. Emphasis on the question of the limits of human knowledge. D

PHIL 325 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 353 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 355 Political and Social Philosophy 3 credits. Questions concerning social justice as discussed by Plato, Aristotle, Hobbes, Locke, Hegel, Marx and others. D

PHIL 400 Philosophy of Art 3 credits. Study of philosophical 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 of representation; the nature of interpretive and evaluative claims. R2

PHIL 410 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 420 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 425 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 430 Philosophy of Science 3 credits. A critical analysis of the philosophical presuppositions of the empirical sciences, with attention given to the wider expressions of these presuppositions in contemporary life. R2
PHIL g435 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 g440 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. Cross-listed as ENGL g440. D

PHIL g450 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 g460 Theory of Knowledge 3 credits. A survey of reflections on the question, “What, if anything, can we know?” Topics include knowing, believing, meaning, truth, and certainty. R2

PHIL g470 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 480 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 g490 Philosophy Seminar 1-3 credits. Advanced reading and discussion on selected topics in philosophy. May be repeated with permission of the department. D

PHIL g492 Senior Tutorial 3 credits. A culminating course for senior majors. Directed research resulting in a senior thesis, to be evaluated by the philosophy faculty. PREREQ: 90 credits and permission of the Director of Philosophy. S

Folklore Program

Director and Professor: J. Attebery
(English)

Folklore is the part of our culture that we learn in informal, personal interactions with people we meet regularly. The many genres of folklore include the verbal arts, such as epic, ballad, folksong, folk tale, legend, myth, joke, tall tale, riddle, and proverb. 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 groups that have a common ethnic, religious, occupational, or other basis.

Folklorists with a literary orientation tend to focus on genres, the ways in which they are learned, the ways they change in transmission, the ways they are performed, and their cultural and historical contexts. They may focus on textual questions, studying folk aesthetics and connotation and the relationships between folklore genres and literature. Folklorists with an anthropological orientation tend to study the variety of genres within a single culture, examining the interrelationships and functions of folk forms within the cultural group. The Program in Folklore at Idaho State University draws on both of these approaches to provide students with a well-rounded course of study.

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 work in health-related professions.

Minor in Folklore

The program in folklore offers a minor designed to augment American Studies, Anthropology, English, History, Sociology, and other majors. The program’s required course, ANTH/ENGL 212, 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 212 Introduction to Folklore/Oral Tradition 3 cr

Choose 15 credits from:

ANTH 301 Introduction to Shoshoni Folklore 3 cr

Department of Geosciences

Chair and Professor: Rodgers
Professors: Hughes, Link, McCurry, Thackray
Associate Professor: Ames
Research Associate Professor: Glenn
Assistant Professors: Crosby, Mannel, Leif Tapanila
Research Assistant Professor: Sankey
Assistant Lecturer: Lori Tapanila
Affiliate Faculty: Aly, Cecil, Dehler, Kuntz, Mahar, Plummer, Sherwin, Smith, Stephens, Thomas, Van Kirk, Welhan, Winterfeld
GIS TRC Affiliate: Weber
Research Associates: Shapley, Tang, Wang
Emeriti: Blount, Fortsch, 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. Numerous evening classes are offered for the general public.

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. Additional cooperative degrees are offered through agreements with Geoscience departments at Boise State University and the University of Idaho, which facilitate the transfer of undergraduate credits between the three institutions.

Students who have taken GEOL 100 and GEOL 100L, or GEOL 101 and GEOL 101L, and who have decided to major in geology, must take GEOL 110, which is the prerequisite for many other courses in the geology major. For the purposes of a geology major or minor, only 4 credits will be granted for any combination of GEOL 100, GEOL 100L, GEOL 101, GEOL 101L, and GEOL 110.

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 100 or 101 (3 cr.);
2. Earn a grade of “C” or better in GEOL 110 (1 cr.);
3. Complete University General Education Goals I 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.

Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 111, 111L</td>
<td>General Chemistry I</td>
<td>5 cr</td>
</tr>
<tr>
<td>MATH 147</td>
<td>Precalculus</td>
<td>5 cr</td>
</tr>
<tr>
<td>GEOL 100,100L</td>
<td>The Dynamic Earth, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>GEOL 101</td>
<td>Physical Geology</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL 110</td>
<td>Physical Geology for Scientists Laboratory</td>
<td></td>
</tr>
<tr>
<td>GEOL 202</td>
<td>Historical Geology</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL 210</td>
<td>Earth in Space and Time</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL 313</td>
<td>Earth Materials I</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL 406</td>
<td>Environmental Geology</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL 421</td>
<td>Structural Geology</td>
<td>4 cr</td>
</tr>
<tr>
<td>GEOL 431</td>
<td>Geobiology and the History of Life</td>
<td>4 cr</td>
</tr>
<tr>
<td>GEOL 452</td>
<td>Sedimentation-Stratigraphy</td>
<td>4 cr</td>
</tr>
<tr>
<td>GEOL 456</td>
<td>Geology of Idaho</td>
<td>2 cr</td>
</tr>
<tr>
<td>GEOL 458</td>
<td>Geology of North America</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL 460</td>
<td>Geomorphology</td>
<td>4 cr</td>
</tr>
<tr>
<td>GEOL 461</td>
<td>Geology of Life</td>
<td>4 cr</td>
</tr>
<tr>
<td>GEOL 462</td>
<td>Geology of Idaho</td>
<td>2 cr</td>
</tr>
<tr>
<td>GEOL 465</td>
<td>Geology of North America</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 147</td>
<td>Precalculus</td>
<td>5 cr</td>
</tr>
<tr>
<td>MATH 175</td>
<td>Calculus II</td>
<td>4 cr</td>
</tr>
<tr>
<td>CHEM 111, 111L</td>
<td>General Chemistry I</td>
<td>5 cr</td>
</tr>
<tr>
<td>PHYS 111,<em>211</em></td>
<td>General Physics I and II</td>
<td>6 cr</td>
</tr>
<tr>
<td>PHYS 211,<em>212</em></td>
<td>Engineering Physics</td>
<td>8 cr</td>
</tr>
<tr>
<td>GEOL 100,100L</td>
<td>The Dynamic Earth, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>GEOL 101</td>
<td>Physical Geology for Scientists Laboratory</td>
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</tr>
<tr>
<td>GEOL 110</td>
<td>Physical Geology</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL 210</td>
<td>Earth in Space and Time</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL 313</td>
<td>Earth Materials I</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL 314</td>
<td>Earth Materials II</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL 420</td>
<td>Principles of Geochemistry</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL 402</td>
<td>Geomorphology</td>
<td>4 cr</td>
</tr>
<tr>
<td>GEOL 415</td>
<td>Quaternary Global Change</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL 421</td>
<td>Structural Geology</td>
<td>4 cr</td>
</tr>
<tr>
<td>GEOL 430</td>
<td>Principles of Hydrogeology</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL 431</td>
<td>Geobiology and the History of Life</td>
<td>4 cr</td>
</tr>
<tr>
<td>GEOL 450**</td>
<td>Geology and the History of Life</td>
<td>4 cr</td>
</tr>
<tr>
<td>GEOL 452</td>
<td>Sedimentation-Stratigraphy</td>
<td>4 cr</td>
</tr>
</tbody>
</table>

Plus one of the following three courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 463,460L</td>
<td>Principles of Geographic Information Systems, and Lab</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL 407</td>
<td>GPS Applications in Research</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL 409</td>
<td>Remote Sensing</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

TOTAL: 36 to 38 required geoscience credits plus at least 10 other optional geoscience credits to equal at least 48 geoscience credits. GEOL 430 is strongly recommended for those considering graduate studies or employment in the field of environmental geoscience. * Optional (May choose these as companions to * courses) PHYS 113,114 | General Physics Laboratory | 2 cr |
PHYS 213,214 | Engineering Physics Laboratory         | 2 cr |
** GEOL 450 is a 5-week summer field course, usually taken between the junior and senior years.

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.

Required Courses:

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>MATH 147</td>
<td>Precalculus</td>
<td>5 cr</td>
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<tr>
<td>MATH 170</td>
<td>Calculus I</td>
<td>4 cr</td>
</tr>
<tr>
<td>MATH 175</td>
<td>Calculus II</td>
<td>4 cr</td>
</tr>
<tr>
<td>CHEM 111, 111L</td>
<td>General Chemistry I</td>
<td>5 cr</td>
</tr>
<tr>
<td>PHYS 111,<em>112</em></td>
<td>General Physics I and II</td>
<td>6 cr</td>
</tr>
<tr>
<td>PHYS 211,<em>212</em></td>
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<td>8 cr</td>
</tr>
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<td>GEOL 110</td>
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<td>3 cr</td>
</tr>
<tr>
<td>GEOL 210</td>
<td>Earth in Space and Time</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL 313</td>
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</tr>
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<td>GEOL 420</td>
<td>Principles of Geochemistry</td>
<td>3 cr</td>
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<td>Geomorphology</td>
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<td>GEOL 421</td>
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<td>4 cr</td>
</tr>
<tr>
<td>GEOL 430</td>
<td>Principles of Hydrogeology</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL 431</td>
<td>Geobiology and the History of Life</td>
<td>4 cr</td>
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<tr>
<td>GEOL 450**</td>
<td>Geology and the History of Life</td>
<td>4 cr</td>
</tr>
<tr>
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<td>Sedimentation-Stratigraphy</td>
<td>4 cr</td>
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<td>3 cr</td>
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<td>GEOL 407</td>
<td>GPS Applications in Research</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL 409</td>
<td>Remote Sensing</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

TOTAL: 36 to 38 required geoscience credits plus at least 10 other optional geoscience credits to equal at least 48 geoscience credits. GEOL 430 is strongly recommended for those considering graduate studies or employment in the field of environmental geoscience. * Optional (May choose these as companions to * courses) PHYS 113,114 | General Physics Laboratory | 2 cr |
PHYS 213,214 | Engineering Physics Laboratory         | 2 cr |
** GEOL 450 is a 5-week summer field course, usually taken between the junior and senior years.
Emphasis in Engineering Geology

Complete the following courses in addition to the Bachelor of Science in Geology:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE/GEOL g454</td>
<td>Basic Engineering Geology</td>
<td>3 cr</td>
</tr>
<tr>
<td>CE/GEOL g455</td>
<td>Geologic Data Methods</td>
<td>3 cr</td>
</tr>
<tr>
<td>CE/GEOL g475</td>
<td>Essentials of Geomechanics</td>
<td>3 cr</td>
</tr>
<tr>
<td>CE/GEOL g476</td>
<td>Engineering Geology Project</td>
<td>1 cr</td>
</tr>
<tr>
<td>CE g480</td>
<td>Earthquake Engineering</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Bachelor of Science or Bachelor of Arts in Earth and Environmental Systems

The purpose of this program is to deliver a multidisciplinary education with environmental geosciences as a foundation, while also drawing upon existing courses from a diverse array of 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 128-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 128 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 both physical and human systems; thus, we require course work in biological sciences, physical science, mathematics, statistics and social sciences. Many of these courses will satisfy General Education Goal requirements, specifically Goal 4 (Biological Sciences), Goal 5 (Physical Sciences), Goal 3 (Mathematics), and either Goal 9 (U.S. History) or Goal 11 (Political Science/Economics).

All of the following 4 courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 101,101L</td>
<td>Biology I, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 102,102L</td>
<td>Biology II, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>CHEM 111,111L</td>
<td>General Chemistry I, and Lab</td>
<td>5 cr</td>
</tr>
<tr>
<td>BIOL 209</td>
<td>General Ecology</td>
<td>4 cr</td>
</tr>
</tbody>
</table>

One of the following 3 courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 147</td>
<td>Pre-Calculus (B.A.)</td>
<td>5 cr</td>
</tr>
<tr>
<td>MATH 200</td>
<td>Applied Calculus (B.S.)</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 220</td>
<td>Calculus I (B.S.)</td>
<td>4 cr</td>
</tr>
</tbody>
</table>

Plus

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 253</td>
<td>Introduction to Statistics</td>
<td>3 cr</td>
</tr>
<tr>
<td>or another approved statistics course</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

One of the following 4 courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST g430</td>
<td>Environmental History</td>
<td>3 cr</td>
</tr>
<tr>
<td>POLS g455</td>
<td>Environmental Politics and Policy</td>
<td>3 cr</td>
</tr>
<tr>
<td>SOC 335</td>
<td>Population and Environment</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL/HIST/POLS g471</td>
<td>Idaho Historical Geography</td>
<td>3 cr</td>
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</tbody>
</table>

Recommended

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 307</td>
<td>Professional and Technical Writing</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHYS 211</td>
<td>Engineering Physics (B.S.)</td>
<td>4 cr</td>
</tr>
</tbody>
</table>

Required and Elective Core Courses

(28-31 cr)

The required and elective core provides a broad background in Earth Systems and Geosciences. The Geol 115 course introduces the Earth System components and Geol 406 covers modern environmental issues and their relationship to the Geosciences. Geol 415, Past Global Changes (new name and revised focus) and Geol 416, Global Environmental Change, are capstone integrative courses intended for seniors who have completed most degree requirements.

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 115, 115L</td>
<td>Physical Geography, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>GEOL 110</td>
<td>Physical Geology</td>
<td>4 cr</td>
</tr>
<tr>
<td>GEOL 210</td>
<td>Earth in Space and Time</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL g406</td>
<td>Environmental Geology</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL g415</td>
<td>Past Global Change</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL g416</td>
<td>Global Environmental Change</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Geosciences core courses—

Choose at least 2 courses from this list

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL g403,g403L</td>
<td>Principles of Geographic Information Systems, and Lab</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Electives—choose at least 2 courses from this list

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 313</td>
<td>Earth Materials I</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL 402</td>
<td>Geomorphology</td>
<td>4 cr</td>
</tr>
<tr>
<td>GEOL g403,g403L</td>
<td>Principles of Geographic Information Systems, and Lab</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL g404</td>
<td>Advanced Geographic Information Systems</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL g405</td>
<td>Volcanology</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL g407</td>
<td>Remote Sensing</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL 450</td>
<td>Field Geology</td>
<td>6 cr</td>
</tr>
<tr>
<td>GEOL 451</td>
<td>Field Methods in Environmental Sciences</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL g452</td>
<td>Sedimentation-Stratigraphy</td>
<td>4 cr</td>
</tr>
<tr>
<td>GEOL g456</td>
<td>Geology of Idaho</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Cross-disciplinary Tracks (21 cr):

Students must choose one track from the following list (at least 21 credits):

1. Biological Systems: 200- through 400-level courses in Biological Sciences, Geosciences (Earth Systems), Chemistry, and Sociology
2. Environmental Geochemistry: 200- through 400-level courses in Chemistry, Geosciences, and Biological Sciences
3. Environmental Health: 200- through 400-level courses in Biosciences, Sociology, Anthropology and Health Education
4. Environmental Policy and Management: 200- through 400-level courses in Economics, Management, Political Science, Biological Sciences, History, Speech, and English
5. Global Environmental Change: 200- through 400-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

- BIOL g416 Population and Community Ecology 3 cr
- BIOL g562 Freshwater Ecology 3 cr
- BIOL g489 Field Ecology 4 cr

2 of the following 7 courses (remaining courses may be taken as electives)

- BIOL 213 Fall Flora 2 cr
- BIOL 214 Spring Flora 2 cr
- BIOL g426 Herpetology 3 cr
- BIOL g427 Ichthyology 3 cr
- BIOL g438 Ornithology 3 cr
- BIOL g431 General Entomology 3 cr
- BIOL g441 Mammalogy 3 cr

Electives

- SOC 335 Population and Environment 3 cr
- BIOL 315 Introduction to Biometry 3 cr
- BIOL 337 Conservation of Natural Resources 3 cr
- BIOL g576 Ecology of Water Pollution 3 cr
- HIST g430 Environmental History 3 cr
- ENVE g404 Environmental Risk Analysis 3 cr
- GEOL g402 Geomorphology 4 cr
- GEOL g451 Field Methods in Environmental Sciences 3 cr

GEOL/HIST/POLS g471 Historical Geography of Idaho 3 cr

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)

- GEOL g420 Principles of Geochemistry 3 cr
- CHEM 112, 112L General Chemistry II, and Lab 4 cr
- CHEM 211 Organic Chemistry I 3 cr
- ENVE g410 Introduction to Environmental Engineering 3 cr
- BIOL g432 Biochemistry 3 cr

Electives

- BIOL 221, 221L Introductory Microbiology and Lab 4 cr
- CHEM 314, 314L Quantitative Analysis and Lab 4 cr
- CHEM 351 Physical Chemistry* 3 cr
- CHEM 352 Physical Chemistry* 3 cr
- CHEM g435 Environmental Chemistry 2 cr
- ENVE g404 Environmental Risk Analysis 3 cr
- BIOL g476 Ecology of Water Pollution 3 cr
- GEOL g451 Field Methods in Environmental Sciences 3 cr

*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)

- BIOL 221/221L Introductory Microbiology and Lab 4 cr
- BIOL g476 Ecology of Water Pollution 3 cr
- ANTH 230 Introduction to Biological Anthropology and Lab 4 cr
- H E 442 Environmental Health and Education 2 cr

Electives

- H E 383 Epidemiology 3 cr
- SOC 206 Sociological Methods 3 cr
- SOC 207 Social Statistics 3 cr
- SOC 330 Sociology of Health and Illness 3 cr
- SOC 335 Population and Environment 3 cr
- ANTH g408 Special Topics in Medical Anthropology 3 cr
- BIOL/PHIL 230 Bioethics 3 cr
- BIOL 315 Introduction to Biometry 3 cr
- BIOL g423 General Parasitology 3 cr
- MATH g451 Applied Multivariate Analysis 3 cr
- GEOL/HIST/POLS g471 Historical Geography of Idaho 3 cr

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)

- MGT g662 Principles of Macroeconomic 3 cr
- MGT g662 Principles of Microeconomics 3 cr
- MATH g411 Economic Policy 3 cr
- MATH g433 Environmental Economics 3 cr
- BIOL g416 Population and Community Ecology 3 cr

Electives

- ECON 201 Principles of Macroeconomic 3 cr
- ECON 202 Principles of Microeconomics 3 cr
- ECON g433 Political Economy 3 cr
- POLS g405 Administrative Process 3 cr
- POLS g409 Community and Regional Planning 3 cr
- HIST g430 Environmental History 3 cr
- COMM g452 Conflict Management 3 cr
- PHIL g430 Philosophy of Science 3 cr
- SPCH 208 Group Communication 3 cr

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)

- GEOL g402 Geomorphology 4 cr
- ANTH g402 Ecological Anthropology 3 cr
- BIOL g416 Population and Community Ecology 3 cr
- GEOL g404 Advanced Geographic Information Systems 3 cr

Electives

- SOC 335 Population and Environment 3 cr
- MGT g462 Issues in Business and Society 3 cr
- ECON g433 Economic Development 3 cr
- ECON g411 Political Economy 3 cr
- PHYS 211 Engineering Physics I 4 cr
- MATH 160 Applied Calculus 3 cr
- MATH 170, 175 Calculus I, II (recommended) 8 cr
- GEOL 100, 100L The Dynamic Earth, and Lab 4 cr
- GEOL 101 Physical Geology (recommended) 3 cr

Associate of Science in Geology

Students seeking an Associate of Science degree in Geology must complete the following:

General Education Goals for the Bachelor of Science*

- CHEM 111, 111L General Chemistry I, and Lab 5 cr
- CHEM 112, 112L General Chemistry II, and Lab 4 cr
- PHYS 111 General Physics I 3 cr
- PHYS 211 Engineering Physics I 4 cr
- MATH 160 Applied Calculus 3 cr
- MATH 170, 175 Calculus I, II (recommended) 8 cr
- GEOL 100, 100L The Dynamic Earth, and Lab 4 cr
- GEOL 101 Physical Geology (recommended) 3 cr
GEOL 100 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. COREQ: GEOL 100L. With GEOL 100L, satisfies Goal 5 of the General Education Requirements. F, S, ASu

GEOL 101 Physical Geology 3 credits.
Geological fundamentals: rocks and minerals, geologic time, plate tectonics, earthquakes, volcanoes, surface processes, earth resources and climatic change. With GEOL 101L or GEOL 110, Satisfies Goal 5 of the General Education Requirements. F, S, ASu

GEOL 101L Physical Geology Lab 1 credit.
Focuses on the Earth System and the interaction of humans with the environment. Topics include: earth, water and energy resources as well as natural and human-caused disasters. COREQ: GEOL 100. With GEOL 100, satisfies Goal 5 of the General Education Requirements. F, S, ASu

GEOL 105 Physical Geography 3 credits.
The study of the form of the earth’s surface, the hydrologic cycle, weather and climate. The global distribution of soils, animals and vegetation. Effects of climatic changes. Man’s role in maintaining natural ecosystems. Laboratory exercises and field trips. COREQ: GEOL 115L. With GEOL 115L, satisfies Goal 5 of the General Education Requirements. F, S, ASu

GEOL 110 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 100 or 101L. PREQ OR COREQ: GEOL 100 or GEOL 101. With GEOL 100 or 101, satisfies Goal 5 of the General Education Requirements. F, S

GEOL 115 Physical Geography 3 credits.
The study of the form of the earth’s surface, the hydrologic cycle, weather and climate. The global distribution of soils, animals and vegetation. Effects of climatic changes. Man’s role in maintaining natural ecosystems. Laboratory exercises and field trips. COREQ: GEOL 115L. With GEOL 115L, satisfies Goal 5 of the General Education Requirements. F, S, ASu

GEOL 115L Physical Geography Lab 1 credit.
Laboratory exercises and field trips to study the form of the earth’s surface, the hydrologic cycle, weather and climate, soils, animals and vegetation, and natural ecosystems. COREQ: GEOL 115. With GEOL 115, satisfies Goal 5 of the General Education Requirements. F, S, ASu

GEOL 122 Rocks and Stars 3 credits.
A scientific multimedia guide to planetary geology, principles of mass and energy interactions; planetary growth and evolution, bolide impacts, volcanoes and lava plains, fault systems and mountains, streams, dunes, mass extinctions. AS

GEOL 201 Rocks, Rails, and Trails 1 credit.
Interaction between geography, geology and early history of Southeast Idaho, emphasizing the fur trapping period, the Oregon and California Trails, the coming of the railroad, and early Pocatello. Field trips. Graded S/U. F

GEOL 202 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 100 or GEOL 101. F

GEOL 210 Earth in Space and Time 3 credits.
Tools-oriented course in map coordinates, GPS, basic GIS and remote sensing, spread sheets and data analysis. Includes applications to geologic maps, cross sections, and Geologic Time Scale. PREREQ OR COREQ: GEOL 110. S

GEOL 282 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. PREREQ OR COREQ: GEOL 100 or GEOL 101. Graded S/U. F, S, Su

GEOL 313 Earth Materials 3 credits.
Introduction to the 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 110. PREREQ OR COREQ: CHEM 111 and CHEM 111L. F

GEOL 314 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 210 and GEOL 313. S

GEOL 315 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 100 or GEOL 101, and GEOL 110. S

GEOL 400 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 210. AF

GEOL 402 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 313, GEOL 315, or consent of instructor. COREQ: GEOL 402L. F

GEOL 402L Geomorphology Lab 0 credits.
Assignments to apply principles from GEOL 402. F

GEOL 403 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 101 or permission of instructor. COREQ: GEOL 403L. F, S, W

GEOL 403L Principles of GIS Laboratory 0 credit.
Computer lab assignments to apply principles from GEOL 403. COREQ: GEOL 403. F

GEOL 404 Advanced Geographic Information Systems 3 credits.
Study of relational
GEOL g405 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 314, GEOL 402, GEOL 421 or GEOL g452. AF

GEOL g406 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 100 or 101. F, W

GEOL g407 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 g408 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 g403 and GEOL g403L or permission of instructor. F, S

GEOL g409 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. F

GEOL g410 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. Cross-listed as PHYS g410. PREREQ: Junior standing and permission of instructor. AF

GEOL g411 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 314. AF

GEOL g412 Petrology Laboratory 2 credits. Microscopic identification of igneous and metamorphic minerals and rocks. PREREQ: GEOL 210 and GEOL 313; COREQ: GEOL g411. AF

GEOL g413 Sedimentary Rocks in Thin Section 2 credits. A variety of terrigenous, volcaniclastic, and carbonate rocks will be studied. PREREQ OR COREQ: GEOL g411. AF

GEOL g415 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 g416 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 115, GEOL 115L, GEOL 210, GEOL g406, and BIOL 209. AS

GEOL g417 General Soils 3 credits. Formation, morphology, and distribution of soils, including developments in soil classification. PREREQ: GEOL 100, GEOL 101 or GEOL 115 or permission of instructor. S

GEOL g420 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 313, CHEM 112, and CHEM 112L, or permission of instructor. S

GEOL 421 Structural Geology 4 credits. Structure of the earth’s crust. Investigation of behavior of materials; identification and interpretation of earth structures. PREREQ: MATH 147 or equivalent, and GEOL g452. S

GEOL 421L Structural Geology Laboratory 0 credits. Assignments to apply principles in GEOL 421. S

GEOL g422 Planetary Geology 3 credits. Formation of planetary bodies (planets, moons, asteroids and comets), internal and surficial processes, theories, and planetary exploration. PREREQ: GEOL 100 or GEOL 101 or permission of instructor. D, W

GEOL g427 Information Technology for GIS 3 credits. Study of servers, networks, system administration, relational database design and management, spatial database engines, and serving maps on the internet. The course uses traditional lectures along with demonstrations, and hands-on exercises. PREREQ: GEOL g403 and GEOL g403L or instructor approval. S

GEOL g428 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: g403 and GEOL g403L and instructor approval. S

GEOL g430 Principles of Hydrogeology 3 credits. Surface and groundwater occurrence, movement and recovery, water quality and pollution, well construction principles, and computer modeling. PREREQ: MATH 147; and GEOL 100 or GEOL 101 or permission of instructor. F

GEOL g431 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 202 recommended. F

GEOL g431L Invertebrate Paleontology Lab 0 credits. Assignments to apply principles from GEOL g431. F

GEOL g435 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. Cross-listed as BIOL 435. PREREQ: GEOL g431 or BIOL 314 or equivalent. F

GEOL g439 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 g439, BIOL g439. PREREQ: Permission of instructor. AS

GEOL g440 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 314, GEOL g452 (recommended), or GEOL 421. AF

GEOL g445 Environmental and Engineering Geophysics 4 credits. Geophysical applications to environmental and geological engineering problems. Includes seismic, gravity, magnetic, electrical, and electromagnet methods. (Includes lab.) PREREQ: MATH 144 or MATH 147, and GEOL 100 or GEOL 101, or permission of instructor. COREQ: GEOL g445L. AF

GEOL g445L Environmental and Engineering Geophysics 0 credits. Assignments to apply principles in GEOL g445. COREQ: GEOL g445. 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 314 (recommended) or GEOL g420; GEOL 421 and GEOL g452. Su

GEOL g451 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 403, either GEOL g415 or GEOL g416, and BIOL 209. Su

GEOL g452 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 210 and ENGL 102 or permission of instructor. PREREQ OR COREQ: CHEM 111 and CHEM 111L. COREQ: GEOL g452L. F

GEOL g452L Sedimentation-Stratigraphy Laboratory 0 credits. Assignments to apply principles in GEOL g452. COREQ: GEOL g452. F

GEOL g454 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. Cross-listed as CE g454. COREQ: GEOL 314 or CE 332. D
GEOL g455 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. Cross-listed as CE g455. PREREQ: GEOL 100 or GEOL 101. AS

GEOL g456 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, Challis volcanics, Idaho mineral deposits, Basin and Range, Snake River Plain and Pleistocene floods. PREREQ: GEOL 100 OR 101. AS

GEOL g458 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 100 or GEOL 101. AS

GEOL g465 Subsurface Geology 3 credits. Principles of well log interpretation and correlation, core and cuttings description, cross section and subsurface map creation. Environmental geology, hydrogeology, mining, geological engineering, and petroleum applications. PREREQ: GEOL 210 or permission of instructor. AF

GEOL g471 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 and discussion sections. Cross-listed as HIST g471 and POLS g471. AS

GEOL g475 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. Cross-listed as CE g475. PREREQ: GEOL 421 or ENGR 350. D

GEOL g476 Engineering Geology Project 1 credit. Team projects studying actual problems in engineering geology. Cross-listed as CE g476. PREREQ: GEOL 454 or CE g454. D

GEOL g480 Special Topics in GIS 1-3 credits. Visual Basic programming for GIS. PREREQ: GEOL 403 and GEOL 403L, and permission of instructor. F, S

GEOL g481 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/create geotechnical data. PREREQ: GEOL 403 and GEOL 403L, or permission of instructor. F, S

GEOL g482 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 g483 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. Cross-listed as CE g480. PREREQ: GEOL 313 OR CE 332, or permission of instructor. D

GEOL g491 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 493 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 497 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 in History

Admission Requirements:
For admission to status as a major and to be accepted as a major by the History Department, a student must have completed General Education Goals 1, 2, 3, 9, and 10A for the Bachelor of Arts degree and have an overall grade point average of 2.5 or higher.

Graduation Requirements
In addition to the general requirements for the Bachelor of Arts Degree, all history majors must take a minimum of 36 credits from the following six categories:

Category I: World Regions (9 credits, no more than 3 of which must be in HIST 101 or HIST 102)

HIST 101 Foundations of Europe 3 cr
HIST 102 Modern Europe 3 cr
HIST 249 World Regional Geography 3 cr
HIST 251 Latin America 3 cr
HIST 252 East Asian History 3 cr
HIST 254 Middle Eastern Civilization 3 cr
HIST 255 African History and Culture 3 cr

Note: Students may use one of the above courses to satisfy Goal 10A of the General Education requirements.

Category II: Research Skills (6 credits)

HIST 291 The Historian’s Craft 3 cr
HIST g491 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, only if the prerequisites are satisfied.

HIST g418 United States History for Teachers 3 cr

Category IV: Upper Division United States History (6 credits)

Choose one 300-level and one 400-level course from the following list:

HIST 307 Early North America 3 cr
HIST 308 Industrialization and Reform in the United States 3 cr
HIST 309 Modern United States 3 cr
HIST g421 Federal Indian Relations 3 cr
HIST g423 Idaho History 3 cr
HIST g425 Women in the North American West 3 cr

Department of History

Chair and Associate Professor: Woodworth-Ney
Professors: A. Christelow, S. Christelow, Hale, Hatzenbuehler, Owens
Associate Professors: Kuhlman, Marsh
Assistant Professor: Himman
Assistant Lecturer: Reinke
Adjunct Faculty: Emfield, James, Mahers, Williams
Emeriti: Marley, 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. Understand historical events and developments in their global context.
2. Understand how places are connected (for example, by economic, political, and cultural links) and analyze how these interconnections have changed over particular periods.
3. Understand regions as historical entities, including change in their spatial dimensions and characteristics over time.
4. Understand cartographic representations of spatial features and relationships and of historical developments.
5. Understand how local developments are linked to regional or global themes.
6. Understand explanations of individual and collective action.

7. Understand ideas and values and how they are interpreted and transformed in historical contexts.
8. Understand how historians use evidence and develop differing interpretations.
9. Understand bias and points of view in primary and secondary sources, including in images, documentary films, and cartographic representations.


### Associate of Arts in History

Students seeking an Associate of Arts degree in History must complete the following:

**General Education Goals for the Bachelor of Arts**

All of the General Education Goals (10A and 10B) 35-53 cr*

**World Regions**

(9 credits, no more than 3 of which must be in HIST 101 or HIST 102)

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

- HIST 101 Foundations of Europe 3 cr
- HIST 102 Modern Europe 3 cr
- HIST 249 World Regional Geography 3 cr
- HIST 251 Latin America 3 cr
- HIST 252 East Asian History 3 cr
- HIST 254 Middle Eastern Civilization 3 cr
- HIST 255 African History and Culture 3 cr

Students may use one of the above courses to satisfy Goal 104 of the General Education requirements.

Three additional 200-400 level courses in history 9 cr 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.

### Foreign Language Recommendation

All students, particularly those planning graduate work, are strongly urged to develop a foreign language program in addition to the courses required for the B.A. degree. Students should consult with their advisors.

### History Courses

**HIST 101 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. Satisfies Goal 10A of the General Education Requirements. D

**HIST 102 Modern Europe** 3 credits. Europe’s rise and decline as the dominant world region during the second global age, from 1700 to the present. Satisfies Goal 10A of the General Education Requirements. D

**HIST 111 U.S. History I** (to 1865) 3 credits. Colonial origins and achievement of independence, constitutional government, national boundaries, and the preservation of the union. Satisfies Goal 9 of the General Education Requirements. F, S

**HIST 112 U.S. History II** (to present) 3 credits. The domestic and international development of a plural, industrial society. Satisfies Goal 9 of the General Education Requirements. F, S

**HIST 118 U.S. History and Culture** 3 credits. An introduction to U.S. history and culture, including cultural change over time. Fulfills General Education Goal 9, F, S, Su

**HIST 221 Greece and Rome** 3 credits. Social, political, economic and cultural developments of the Mediterranean world during Greek and Roman times. D

**HIST 223 Medieval Europe** 3 credits. The decline of the Roman Empire; the early development of the states of Western Europe; the Medieval Church and the Papacy; and the industry, philosophy, science, and arts of the Middle Ages. D

**HIST 249 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 Goal 10A of the General Education Requirements. F

**HIST 251 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 Goal 10A of the General Education Requirements. D

**HIST 252 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 Goal 10A of the General Education Requirements. D

### Minor in History

**World Regions** (9 credits, no more than 3 of which must be HIST 101 or HIST 254): Students must take at least three of the following World Regions courses:

- HIST 101 Foundations of Europe 3 cr
- HIST 102 Modern Europe 3 cr
- HIST 249 World Regional Geography 3 cr
- HIST 251 Latin America 3 cr
- HIST 252 East Asian History 3 cr
- HIST 254 Middle Eastern Civilization 3 cr
- HIST 255 African History and Culture 3 cr

Students may use one of the above courses to satisfy Goal 104 of the General Education requirements.

**Other Courses:**

- ONE additional 200-400 level course in History 3 cr
- TWO additional 300-400 level courses in History 6 cr

TOTAL: 18 cr

### Teaching Majors and Minors

All students exercising this option must have 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 a postgraduate legal education should consult regularly with him.
HIST 254 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 Goal 10A of the General Education Requirements. D

HIST 255 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 Goal 10A of the General Education Requirements. D

HIST 258 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. Cross-listed as ANTH 258. D

HIST 291 The Historian’s Craft 3 credits. Takes an interdisciplinary approach to historical research. Trains students in diverse methods of inquiry and analysis. To be taken as early as possible after a student has declared a major in History. Required prerequisite for HIST g491. F, S

HIST 307 Early North America 3 credits. A study of American cultures prior to the arrival of Europeans, of the variety of transplanted cultures in America and their changes over time. Special emphasis on the founding of the United States and the establishment of government under the Constitution. R2

HIST 308 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 309 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. rise to global power, its maturation as a mass society, the rise and decline of liberalism and conservatism, the Civil Rights Movement, the Vietnam War, the changing nature of citizenship and culture, and the end of the Cold War. R2

HIST 318 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 322 Religious Reformation 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. PREREQ: HIST 101. D

HIST 323 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 326 Twentieth Century Europe 3 credits. Europe from World War II through the end of the Cold War. PREREQ: HIST 102 or permission of instructor. D

HIST 337 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. ASu

HIST 364 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 382 Russia 3 credits. Russian history and civilization from the medieval Kievan state to modern times. D

HIST 405 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 418 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 421 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 423 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

HIST 425 Women in the North American West 3 credits. Comparative examination of the varied experiences of women in the North American West. Analyses 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 427 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 429 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 430 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 435 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 437 Families in Former Times 3 credits. Reconstructs the marriage patterns and domestic lives of people in pre-industrial Europe (1000-1700 AD). D

HIST 438 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 439 Women in History 3 credits. Comparative study of the history of women in different world regions. R2

HIST 441 The Viking Age 3 credits. Studies the cultures and societies of Scandinavia, England and continental Europe from 700 to 1100 AD. D

HIST 443 English History 3 credits. Survey of the more important British political, constitutional, economic, and cultural developments from Anglo-Saxon times to the Victorian period. D

HIST 444 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 446 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 448 Medieval Social and Economic History of Europe 3 credits. Analyzes the impact of political instability, migration and environment upon Europeans (AD 200-1400). D

HIST 450 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 453 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 460 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 g461 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 g462 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 g463 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 g465 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 party political systems. Cross-listed as POLS g465. R2

HIST g471 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. Cross-listed as GEOL g471 and POLS g471. AS

HIST g474 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 g478 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. PREREQ: HIST 252, HIST 254, or HIST 255. D

HIST g479 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 g489 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

HIST g490 Cartography: History and Design 3 credits. History of how map-makers represent geographic, spatial data. Special attention to the elements of successful cartographic design. F

HIST g490L 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. F

HIST g491 Seminar 3 credits. Reading, discussion, and preparation for research papers on selected topics. PREREQ: Senior standing in History major; HIST 291. F, S

HIST g497 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.

International Studies Program

Director and Professor: Anderson (Political Science)

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

The International Studies Program encourages students to develop a general understanding of language, culture, economics, and politics while simultaneously offering the opportunity to specialize in one of three areas:

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

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 Goals 1, 2, and 3 for the Bachelor of Arts degree, a minimum of eight (8) credits of a foreign language (or demonstrated equivalent);
2. POLS 221 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 (8 credits beyond Goal 10B) or the equivalent demonstrated competency. The languages offered at Idaho State University are French, German, Japanese, Russian, and Spanish.
2. ECON 201, 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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IS 200</td>
<td>Simulation*</td>
<td>1 cr</td>
</tr>
<tr>
<td>IS 400</td>
<td>Simulation*</td>
<td>1 cr</td>
</tr>
<tr>
<td>IS 493</td>
<td>Senior Thesis</td>
<td>4 cr</td>
</tr>
<tr>
<td>POLS 221</td>
<td>Introduction to International Relations</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

*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**

ANTH 250 Introduction to Sociocultural Anthropology 3 cr  
ANTH g402 Ecological Anthropology 3 cr

**Economics**

ECON 334 International Economics 3 cr  
ECON g433 Economic Development 3 cr  
ECON g472 Comparative Economic Systems 3 cr

*Both ECON 201 and ECON 202 are prerequisites for the Economics courses above.

**History**

HIST 251 Latin America 3 cr  
HIST 252 East Asian History 3 cr  
HIST 254 Middle Eastern Civilization 3 cr  
HIST 255 African History and Culture 3 cr  
HIST 382 Russian History 3 cr  
HIST g430 Global Environmental History 3 cr  
HIST g474 Islam and Nationalism in the Modern World 3 cr  
HIST g478 Imperialism and Progressivism 3 cr

**Political Science**

POLS 331 Comparative Politics: Framework for Analysis 3 cr  
POLS g432 Comparative Politics: Change and Political Order 3 cr  
POLS g433 Politics of Developing Nations 3 cr  
POLS g434 Terrorism and Political Violence 3 cr  
POLS g435* Topics in National/Regional Studies 3 cr

*in consultation with your advisor and when the topic relates to political and economic development.

**Sociology**

SOC 335 Population and Environment 3 cr

**B. Language, Literature, and Culture**

This area of concentration is for those wishing to study the language, literature, and culture of societies other than the United States. It is limited to concentrations in French, German, Japanese, Russian, and Spanish. No more than twelve (12) of the required eighteen (18) credits may be taken from the offerings of a single department.

**French**

CMLT 207 Contemporary European Culture 3 cr  
FREN 301, 302 French Conversation and Composition I and II 6 cr  
FREN 341, 342 Survey of French Literature and Civilization I and II 6 cr  
FREN 381 French Current Affairs 3 cr  
FREN 410 Seventeenth Century French Literature 3 cr  
FREN 420 Eighteenth Century French Literature 3 cr  
FREN 450 Twentieth Century French Literature 3 cr  
FREN g430 French Romanticism 3 cr  
FREN g440 French Realism and Naturalism 3 cr  
FREN g470 Readings in French 2 cr  
FREN g480 Independent Studies in French 3 cr  
FREN g490 French Senior Seminar 3 cr  
HIST 255 African History and Culture 3 cr  
HIST 323 Old Regime and French Revolution 3 cr  
HIST 326 Twentieth Century Europe 3 cr  
POLS g435* Topics in National/Regional Studies 3 cr  
*in consultation with your advisor and when the topic relates to this area of concentration

**German**

CMLT 207 Contemporary European Culture 3 cr  
GERM 301, 302 German Conversation and Composition 6 cr  
GERM 341–342 Survey of German Literature and Civilization 6 cr  
GERM 381 German Current Affairs 3 cr  
GERM g400 German Advanced Grammar 3 cr  
GERM g410 Survey of German Poetry 3 cr  
GERM g420 The Age of Goethe 3 cr  
GERM g430 German Romanticism 3 cr  
GERM g440 German Realism and Naturalism 3 cr  
GERM g450 Modern German Literature 3 cr  
GERM g470 Readings in German 2 cr  
GERM g480 Independent Studies in German 3 cr  
GERM g490 German Senior Seminar 3 cr  
POLS g435* Topics in National/Regional Studies 3 cr  
*in consultation with your advisor and when the topic relates to this area of concentration

**Japanese**

HIST 252 East Asian History 3 cr  
JAPN 301, 302 Japanese Conversation and Composition I and II 6 cr  
JAPN 341, 342 Survey of Japanese Literature I and II 6 cr  
JAPN g470 Readings in Japanese 2 cr  
POLS g432 Comparative Politics: Change and Political Order 3 cr  
POLS g435* Topics in National/Regional Studies 3 cr

*in consultation with your advisor and when the topic relates to this area of concentration

**Russian**

CMLT 207 Contemporary European Culture 3 cr  
HIST 326 Twentieth Century Europe 3 cr  
HIST 382 Russian History 3 cr  
POLS g432 Comparative Politics: Change and Political Order 3 cr  
POLS g435* Topics in National/Regional Studies 3 cr  
RUSS 301, 302 Russian Conversation and Composition I and II 6 cr  
RUSS g470 Readings in Russian 2 cr

*in consultation with your advisor and when the topic relates to this area of concentration

**Spanish**

CMLT 207 Contemporary European Culture 3 cr  
HIST 251 Latin American Civilization 3 cr  
HIST 385 Golden Age Castile 3 cr  
HIST g660 Global Hispanic Monarchy 3 cr  
SPAN 301–302 Spanish Conversation and Composition 6 cr  
SPAN 341–342 Survey of Spanish and Latin American Literature 6 cr  
SPAN 381 Spanish Current Affairs 3 cr  
SPAN g400 Spanish Advanced Grammar 3 cr  
SPAN g410 Spanish Medieval through Golden Age Literature 3 cr  
SPAN g422 Colonial Spanish American Literature 3 cr  
SPAN g425 Nineteenth Century Spanish American Literature 3 cr  
SPAN g430 Spanish Enlightenment and Romanticism 3 cr  
SPAN g440 Spanish Realism Through Generation of ‘98 3 cr  
SPAN g450 Twentieth Century Spanish Literature 3 cr  
SPAN g462 Early Twentieth Century Spanish American Literature 3 cr  
SPAN g465 Contemporary Spanish

3. Electives

Ten (10) credits to be selected from either courses listed in Areas of Concentration A, B, and C or from courses listed below or from a mixture of Concentration courses and those listed here.

**Anthropology**

ANTH g423 Anthropology of International Health 3 cr

**Business**

FIN g475 International Corporate Finance 3 cr  
MGT g465 International Business 3 cr  
MKTG g465 International Marketing 3 cr

**Communication and Rhetorical Studies**

COMM g447 Rhetoric of Hitler and Churchill 3 cr

**English**

ENGL g455/CMLT g415 American Literature 3 cr  
SPAN g470 Readings in Spanish 2 cr  
SPAN g480 Independent Studies in Spanish 3 cr  
SPAN g490 Spanish Senior Seminar 3 cr  
POLS g432 Comparative Politics: Change and Political Order 3 cr  
POLS g433 Politics of Developing Nations 3 cr  
POLS g435* Topics in National/Regional Studies 3 cr

*in consultation with your advisor and when the topic relates to this area of concentration

**History**

HIST 223 Medieval Europe 3 cr  
HIST 435 Colonial Frontiers in America and Africa 3 cr  
HIST g441 The Viking Age 3 cr  
HIST g443 English History 3 cr  
HIST g444 Victorian England and After 3 cr  
HIST g448 Medieval Social and Economic History 3 cr  
HIST g478 Imperialism and Progressivism 3 cr

*Cartography: History and Design 3 cr
**International Studies**

IS 200 Simulation 1 cr  
IS 300 Travel and Study Abroad 3 or 6 cr  
IS 301 Seminar: the International World 1-3 cr  
IS 350 International Symposium 1 cr  
IS 400 Simulation 1 cr  

**Political Science**

POLS 340 Seminar 1-3 cr  
*(in consultation with your advisor and when the topic relates to International Studies)*

**Sociology**

SOC 368 Sociology of Religion 3 cr  

**Minor in International Studies**

**General Requirements**

1. Eight (8) credits in a foreign language or the equivalent demonstrated competency.  
2. Economics 201 (3 credits).

**Minor Requirements**

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

**Required Courses:**

- POLS 221 Introduction to International Relations 3 cr  
- IS 200 Simulation 1 cr  
- IS 400 Simulation 1 cr

**Electives**


**International Studies Courses**

IS 300 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 301 Seminar: International Studies 1-3 credits. Selected topics of international interest. May be repeated for up to 6 credits. D  
IS 350 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 up to 8 credits. F, S

**Sociology**

SOC 368 Sociology of Religion 3 cr  

**Department of Languages and Literatures**

Chair and Professor: Fogelquist  
Professors: Park, Sieber  
Associate Professors: Hunt, Tarp  
Senior Lecturers: Heath, Stewart  
Assistant Lecturers: Dillon, Fukuoka, McCurry, Robredo, Yonk  
Adjunct Faculty: Alvarez, Johansen, Nagata  
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 Bachelor of Arts (B.A.) degrees in French, German and Spanish intended to prepare students for public school teaching and certification in cooperation with the College of Education; for admission to graduate school; and for careers in international organizations, government, and business. Majors are expected to achieve satisfactory levels of proficiency in speaking, listening, reading, and writing; and to acquire knowledge of the literature of the major language and of the historical and cultural contexts in which it was produced.

Minors in French, German, Japanese, Russian, and Spanish and introductory and intermediate courses in Arabic, Chinese, Latin, 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 those who lack the language competency to read major works in their original 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 101).

**Language Lab**

The department maintains language laboratories on both the Pocatello and Idaho Falls campuses, which include tapes, CDs, DVDs, record and film archives, computers and video equipment. Its facilities are available to all language students.

**General Education Requirements**

1. To complete a major or minor in a foreign language, the student must fulfill both Goals 10A and 10B.  
2. The following 3 credit courses taught in English fulfill Goal 10A: CMLT 207, Contemporary European Culture; CMLT 208, Cultures of the Spanish-Speaking World; CMLT 209, Cultures of Asia.  
3. One year of Arabic, Chinese, French, German, Japanese, Latin, Russian, Shoshoni, or Spanish at the elementary or intermediate level fulfills Goal 10B.

**Language Requirement for Foreign Students**

Foreign students cannot apply their native language to fulfill Goal 10B (8 credits of a foreign language). Instead, their passing English 101 and 102 with at least a
C- average will serve the dual purpose of fulfilling Goals 1 and 10B.

C.L.E.P. Credit
Students who speak French, German or Spanish at home or who have learned 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 will fulfill Goal 10B by taking one sequence course in the language in which they have gained the credits (e.g. 8 CLEP credits plus SPAN 201, or 16 credits plus SPAN 301). 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 satisfy Goal 10B 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).

Bachelor of Arts in French, German or Spanish
All courses required for the majors listed below must be completed with a minimum of a C- (C-minus).

To complete a major in French, German or Spanish, the student is required to take a minimum of 30 hours of courses numbered 300 or above, most of which are given in the respective language.

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 French, German and Spanish Majors:

One of the following courses (3 cr)
- CMLT 207 Contemporary European Culture 3 cr
- CMLT 208 Cultures of the Spanish-Speaking World 3 cr
- CMLT 209 Cultures of Asia 3 cr
- CMLT 220 International Film 3 cr

Plus:
- CMLT 360 Literary Theory 3 cr

Major in French
- FREN 201-202 Intermediate French (or equivalent high school courses or experience) 8 cr
- FREN 301-302 French Conversation and Composition 6 cr
- FREN 341-342 Survey of French Literature and Civilization 6 cr
- Upper-division FREN, CMLT, or LANG courses other than LANG 437, four of which must be taught in French 18 cr

Major in German
- GERM 201-202 Intermediate German (or equivalent high school courses or experience) 8 cr
- GERM 301-302 German Conversation and Composition 6 cr
- GERM 341-342 Survey of German Literature and Civilization 6 cr
- Upper-division GERM, CMLT, or LANG courses other than LANG 437, four of which must be taught in German 18 cr

Major in Spanish
- SPAN 201-202 Intermediate Spanish (or equivalent high school courses or experience) 8 cr
- SPAN 301-302 Spanish Conversation and Composition 6 cr
- SPAN 341-342 Survey of Spanish and Latin American Literature and Civilization 6 cr
- Upper-division SPAN, CMLT, or LANG courses other than LANG 437, four of which must be taught in Spanish 18 cr

Major in French, German or Spanish for Business and Professions

Requirements:
1) Two of the following courses (6 cr):
- CMLT 207 Contemporary European Culture 3 cr
- CMLT 208 Cultures of the Spanish-Speaking World 3 cr

Bachelor of Business Administration 33 cr

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).

Minor in French
A Goal 10A course must also be taken.
- FREN 201-202 Intermediate French (or equivalent high school courses or experience) 8 cr
- FREN 301-302 French Conversation and Composition 6 cr
- Upper-division FREN, CMLT, or LANG courses other than LANG 437, one of which must be taught in French 6 cr

Minor in German
A Goal 10A course must also be taken.
- GERM 201-202 Intermediate German (or equivalent high school courses or experience) 8 cr
- GERM 301-302 German Conversation and Composition 6 cr
- Upper-division GERM, CMLT, or LANG courses other than LANG 437, one of which must be taught in German 6 cr

Minor in Japanese
A Goal 10A course must also be taken.
- JAPN 201-202 Intermediate Japanese (or equivalent high school courses or experience) 8 cr
- JAPN 301-302 Japanese Conversation and Composition 6 cr
- Upper-division JAPN, CMLT, or LANG courses other than LANG 437, one of which must be taught in Japanese 6 cr
Minor in Russian
A Goal 10A course must also be taken.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RUSS 201-202</td>
<td>8 cr</td>
</tr>
<tr>
<td>RUSS 301-302</td>
<td>6 cr</td>
</tr>
<tr>
<td>Upper-division RUSS, CMLT, or LANG courses other than LANG 437, one of which must be taught in Russian</td>
<td>6 cr</td>
</tr>
</tbody>
</table>

Minor in Spanish
A Goal 10A course must also be taken.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN 201-202</td>
<td>8 cr</td>
</tr>
<tr>
<td>SPAN 301-302</td>
<td>6 cr</td>
</tr>
<tr>
<td>Upper-division SPAN, CMLT, or LANG courses other than LANG 437, one of which must be taught in Spanish</td>
<td>6 cr</td>
</tr>
</tbody>
</table>

Associate of Arts Degree
Students seeking an Associate of Arts degree in French, German, Japanese, Latin, Russian, Shoshoni or Spanish must complete the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH/ENGL/LANG 107 The Nature of Language</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 110 Introduction to Literature</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 211 Introduction to Literary Analysis</td>
<td>3 cr</td>
</tr>
<tr>
<td>All of the General Education Goals (including 10A and 10B, using the courses below)</td>
<td>37-53 cr</td>
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</tbody>
</table>

Choose one course (for Goal 10A):

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CMLT 207 Contemporary European Culture</td>
<td>3 cr</td>
</tr>
<tr>
<td>CMLT 208 Cultures of the Spanish-Speaking World</td>
<td>3 cr</td>
</tr>
<tr>
<td>CMLT 209 Cultures of Asia</td>
<td>3 cr</td>
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</table>

Choose one set (for Goal 10B):

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREN 101-102 Elementary French</td>
<td>8 cr</td>
</tr>
<tr>
<td>FREN 201-202 Intermediate French</td>
<td>8 cr</td>
</tr>
<tr>
<td>GERM 101-102 Elementary German</td>
<td>8 cr</td>
</tr>
<tr>
<td>GERM 201-202 Intermediate German</td>
<td>8 cr</td>
</tr>
<tr>
<td>JAPN 101-102 Elementary Japanese</td>
<td>8 cr</td>
</tr>
<tr>
<td>JAPN 201-202 Intermediate Japanese</td>
<td>8 cr</td>
</tr>
<tr>
<td>LATN 101-102 Elementary Latin</td>
<td>8 cr</td>
</tr>
<tr>
<td>LATN 201-202 Intermediate Latin</td>
<td>8 cr</td>
</tr>
<tr>
<td>RUSS 101-102 Elementary Russian</td>
<td>8 cr</td>
</tr>
<tr>
<td>RUSS 201-202 Intermediate Russian</td>
<td>8 cr</td>
</tr>
<tr>
<td>SHOS 101-102 Elementary Shoshoni</td>
<td>8 cr</td>
</tr>
<tr>
<td>SHOS 201-202 Intermediate Shoshoni</td>
<td>8 cr</td>
</tr>
<tr>
<td>SPAN 101-102 Elementary Spanish</td>
<td>8 cr</td>
</tr>
<tr>
<td>SPAN 201-202 Intermediate Spanish</td>
<td>8 cr</td>
</tr>
<tr>
<td>Electives to bring total to 64 cr</td>
<td>variable</td>
</tr>
</tbody>
</table>

TOTAL: 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

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARBC 101 Elementary Arabic I</td>
<td>4 cr</td>
</tr>
</tbody>
</table>

Basic communication skills and grammatical structures of Arabic and introduction to cultures of Arabic-speaking countries. Practice in the language laboratory is required. With ARBC 101, satisfies Goal 10B of the General Education Requirements. D

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARBC 102 Elementary Arabic II</td>
<td>4 cr</td>
</tr>
</tbody>
</table>

Continuation of ARBC 101 Practice in the language laboratory is required. PREREQ: ARBC 101 or equivalent. With ARBC 101, satisfies Goal 10B of the General Education Requirements. D

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARBC 201 Intermediate Arabic I</td>
<td>4 cr</td>
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</tbody>
</table>

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 102 or equivalent. With ARBC 202, satisfies Goal 10B of the General Education Requirements. D

<table>
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<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ARBC 202 Intermediate Arabic II</td>
<td>4 cr</td>
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</table>

Continuation of ARBC 201. PREREQ: ARBC 201 or equivalent. With ARBC 201, satisfies Goal 10B of the General Education Requirements. D

CHNS 205 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

Chinese Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CHNS 101 Elementary Chinese I</td>
<td>4 cr</td>
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</tbody>
</table>

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. With CHNS 101, satisfies Goal 10B of the General Education Requirements. D

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CHNS 102 Elementary Chinese II</td>
<td>4 cr</td>
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</table>

Continuation of CHNS 101. Practice in the language laboratory is required. PREREQ: CHNS 101 or equivalent. With CHNS 101, satisfies Goal 10B of the General Education Requirements. D

<table>
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<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CHNS 201 Intermediate Chinese I</td>
<td>4 cr</td>
</tr>
</tbody>
</table>

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 102 or equivalent. With CHNS 201, satisfies Goal 10B of the General Education Requirements. D

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<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CHNS 202 Intermediate Chinese II</td>
<td>4 cr</td>
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</table>

Continuation of CHNS 201. PREREQ: CHNS 201 or equivalent. With CHNS 201, satisfies Goal 10B of the General Education Requirements. D

Comparative Literature Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CMLT 207 Contemporary European Culture</td>
<td>3 cr</td>
</tr>
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</table>

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 Goal 10A of the General Education Requirements. S

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<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CMLT 208 Cultures of the Spanish-Speaking World</td>
<td>3 cr</td>
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</table>

Topics in art, history, literature and film of Spain, Spanish-America and Latino USA. Taught in English. Satisfies Goal 10A of the General Education Requirements. F, S

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<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CMLT 209 Cultures of Asia</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

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 Goal 10A of the General Education Requirements. F

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<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CMLT 220 Introduction to International Film Studies</td>
<td>3 cr</td>
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</table>

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. AS

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<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CMLT 335 World Film Studies</td>
<td>3 cr</td>
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</tbody>
</table>

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: CMLT 220 or permission of instructor. D

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>CMLT 360 Critical Theory</td>
<td>3 cr</td>
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</table>

The application of critical theory to the reading of world literature. Taught in English. PREREQ: ENGL 102. D

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<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CMLT g415 Studies in National Literatures</td>
<td>3 cr</td>
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</table>

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. Cross-listed as ENGL g455. May be repeated for up to 6 credits with different content. D

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<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CMLT g435 Topics in World Film Studies</td>
<td>3 cr</td>
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</tbody>
</table>

Rotating topics in world film studies. Consult Class Schedule for topic being taught. May be repeated with different content. PRE-REQ: Permission of instructor. D

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<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CMLT 488 Comparative Literature Seminar</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

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
French Courses

FREN 101 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. With FREN 102, satisfies Goal 10B of the General Education Requirements. F, S

FREN 102 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 101 or equivalent. With FREN 101, satisfies Goal 10B of the General Education Requirements. F, S

FREN 201 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 102 or equivalent. With FREN 202, satisfies Goal 10B of the General Education Requirements. F

FREN 202 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 201 or equivalent. With FREN 201, satisfies Goal 10B of the General Education Requirements. S

FREN 205 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 301 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 202 or equivalent. F

FREN 302 French Conversation and Composition II 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 202 or equivalent and FREN 301. S

FREN 303 Professional French 3 credits.
Intensive practice speaking, reading and writing in French in business, medical, legal, or other professions. PREREQ: FREN 202 or equivalent experience. Can be repeated for up to 6 credits with different content. D

FREN 305 Study Abroad 3 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 341 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 202 or equivalent. AF

FREN 342 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 202 or equivalent and FREN 341. AS

FREN 381 French Current Affairs 3 credits.
Study of contemporary French culture through an examination of current sociocultural issues in French speaking countries. Conducted in French. R3

FREN 3400 French Advanced Grammar 3 credits.
Survey of selected grammar and composition topics on the advanced level. PREREQ: Permission of instructor. D

FREN 410 Seventeenth Century French Literature 3 credits. Study of representative works of the 17th century, with particular emphasis on the works of Corneille, Moliere, and Racine. Conducted in French. PREREQ: Permission of instructor. R3

FREN 420 Eighteenth Century French Literature 3 credits. French thought as reflected in the literature from 1715 to the Revolution. Special emphasis on the works of Montesquieu, Voltaire, Diderot, and Rousseau. Conducted in French. PREREQ: Permission of instructor. R3

FREN 430 French Romanticism 3 credits.
Study of the Romantic prose, poetry, and drama of the period: Lamartine, Musset, Vigny, Hugo, and others. Conducted in French. PREREQ: Permission of instructor. R3

FREN 440 French Realism and Naturalism 3 credits. Study of the main currents in French literature, as reflected in the works of Balzac, Flaubert, Zola, Maupassant, and other writers of the latter 19th century. Conducted in French. PREREQ: Permission of instructor. R3

FREN 450 Twentieth Century French Literature 3 credits. Study of the main currents of contemporary French literature including symbolism, surrealism, existentialism, objectivism, etc. Conducted in French. PREREQ: Permission of instructor. R3

FREN 455 Dissidence in French Literature 3 credits.
The study of French writings of a variety of genres that criticize political, social and religious practices spotlighting questions of moral values and human rights. Conducted in French. PREREQ: Permission of instructor. R3

FREN 460 Post-Colonial Francophone Literature 3 credits. Impact of the Francophone world on contemporary French culture, focusing on questions of identity in a post-colonial context. Study of representative works, including literature, literary criticism, music, and film. PREREQ: Permission of instructor. D

FREN 465 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 once with a different content. PREREQ: FREN 301, FREN 302, FREN 341, and FREN 342, or permission of instructor. D

FREN 470 Readings in French 2 credits.
Reading, discussion, and preparation of reports on selected topics in French literature. May be repeated for up to 4 credits with different content. Conducted in French. PREREQ: Permission of instructor. D

FREN 480 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 490 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 493 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. F, S

German Courses

GERM 101 Elementary German I 4 credits.
Intended to teach students basic communication skills and grammatical structures in German and to acquaint them with the culture of the German-speaking countries. Practice in the language laboratory is required. With GERM 102, satisfies Goal 10B of the General Education Requirements. F, S

GERM 102 Elementary German II 4 credits.
Intended to teach students basic communication skills and grammatical structures in German and to acquaint them with the culture of the German-speaking countries. Practice in the language laboratory is required. With GERM 101, satisfies Goal 10B of the General Education Requirements. F, S

GERM 201 Intermediate German I 4 credits.
Extensive review of grammatical structures and continued emphasis on developing students’ communication skills in German. Contrastive study of culture as reflected in the German language. Practice in the language laboratory is required. With GERM 202, satisfies Goal 10B of the General Education Requirements. F

GERM 202 Intermediate German II 4 credits.
Extensive review of grammatical structures and continued emphasis on developing students’ communication skills in German. Contrastive study of culture as reflected in the German language. Practice in the language laboratory is required. With GERM 201, satisfies Goal 10B of the General Education Requirements. S

GERM 205 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 301 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 202 or equivalent. F
GERM 302 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 202 or equivalent and GERM 301. S

GERM 303 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 202 or equivalent experience. D

GERM 305 Study Abroad 3 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 341 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 202 or equivalent. AF

GERM 342 Survey of Austrian and Swiss Literature 3 credits. Comprehensive overview of the main currents of Swiss and Austrian cultural history and literature. PREREQ: GERM 202 or equivalent. AS

GERM 381 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. R3

GERM 405 Introduction to German Poetry and Drama 3 credits. Study of representative works of German poetry and drama, with emphasis on works from the Enlightenment to the present. Conducted in German. PREREQ: permission of instructor. R3

GERM 415 Introduction to the German Novel 3 credits. Comprehensive overview of the German novel from the Enlightenment to the present. Conducted in German. PREREQ: permission of instructor. R3

GERM 420 The Age of Goethe 3 credits. A survey of the major works and movements of the pre-classical and classical periods in German literature. Conducted in German. PREREQ: Permission of instructor. R3

GERM 425 The Holocaust in German Literature, Film and Art 3 credits. Examination of the representation of the Holocaust in literature, film, and art. Conducted in German. PREREQ: Permission of Instructor. R3

GERM 435 German Culture through Film 3 credits. Examination of German politics, culture and identity through German film. Conducted in German. PREREQ: Permission of Instructor. R3

GERM 445 Social Problems in German Literature 3 credits. Study of the representation of social problems in German literature from the Enlightenment to the present. Conducted in German. PREREQ: Permission of instructor. R3

GERM g455 GDR and Post-GDR Literature 3 credits. Examination of East German culture and politics through literature written from 1960-1989 and in the nostalgic texts of the post-unification period. Conducted in German. PREREQ: Permission of Instructor. R3

GERM 460 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 once with different content. PREREQ: GERM 301, GERM 302, GERM 341, and GERM 342, or permission of instructor. D

GERM g470 Readings in German 2 credits. Reading, discussion, and preparation of reports 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 g480 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 g490 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 493 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. F, S

Japanese Courses

JAPN 101 Elementary Japanese I 4 credits. Basic communication skills, grammatical structures, and acquaintance with culture in Japan. Practice in the language laboratory is required. With JAPN 102, satisfies Goal 10B of the General Education Requirements. F

JAPN 102 Elementary Japanese II 4 credits. Basic communication skills, grammatical structures, and acquaintance with culture in Japan. Practice in the language laboratory is required. With JAPN 101, satisfies Goal 10B of the General Education Requirements. S

JAPN 201 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 101 or equivalent. With JAPN 202, satisfies Goal 10B of the General Education Requirements. F

JAPN 202 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. With JAPN 201, satisfies Goal 10B of the General Education Requirements. S

JAPN 301 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 202 or equivalent. F

JAPN 302 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 202 or equivalent. F

JAPN 303 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 202 or equivalent experience. D

JAPN 305 Study Abroad 3 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 310 Japanese Language and Civilization I 3 credits. Comprehensive overview of main currents of Japanese cultural history and literature. Conducted in English using translated texts. Knowledge of the language is not required. PREREQ: ENGL 102. AF

JAPN 311 Japanese Language and Civilization II 3 credits. Comprehensive overview of main currents of Japanese cultural history and literature. Conducted in English using translated texts. Knowledge of the language is not required. PREREQ: ENGL 102. AS
Latin Courses
LATN 101 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. With LATN 102, satisfies Goal 10B of the General Education Requirements. F, S
LATN 102 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. With LATN 101, satisfies Goal 10B of the General Education Requirements. F, S
LATN 201 Intermediate Latin I 4 credits. Review and further study of Latin grammar. Readings from various authors. Study of one book of Virgil’s Aeneid. With LATN 202, satisfies Goal 10B of the General Education Requirements. PREREQ: LATN 102 or equivalent. D
LATN 202 Intermediate Latin II 4 credits. Review and further study of Latin grammar. Readings from various authors. Study of one book of Virgil’s Aeneid. With LATN 201, satisfies Goal 10B of the General Education Requirements. PREREQ: LATN 102 or equivalent and LATN 201. D
LATN g470 Readings in Latin 2 credits. Reading, discussion, and preparation of reports 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 101 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. With RUSS 102, satisfies Goal 10B of the General Education Requirements. F
RUSS 102 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. With RUSS 101, satisfies Goal 10B of the General Education Requirements. F
RUSS 201 Intermediate Russian I 4 credits. Extensive review of grammatical structures and continued emphasis on developing students’ communication skills in Russian. Contrastive study of culture as reflected in the Russian language. Practice in the language laboratory is required. PREREQ: RUSS 102 or equivalent and RUSS 201. With RUSS 201, satisfies GOAL 10B of the General Education Requirements. S
RUSS 202 Intermediate Russian II 4 credits. Extensive review of grammatical structures and continued emphasis on developing students’ communication skills in Russian. Contrastive study of culture as reflected in the Russian language. Practice in the language laboratory is required. PREREQ: RUSS 201 or equivalent and RUSS 202. With RUSS 201, satisfies GOAL 10B of the General Education Requirements. S

Spanish Courses
SPAN 101 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. With SPAN 102, satisfies Goal 10B of the General Education Requirements. F, S
SPAN 102 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. With SPAN 101, satisfies Goal 10B of the General Education Requirements. F, S

SPAN 110 Spanish for Health Care I 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. F

SPAN 111 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. PREREQ: SPAN 110 or equivalent. S

SPAN 201 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. With SPAN 202, satisfies Goal 10B of the General Education Requirements. PREREQ: SPAN 102 or equivalent. F, S

SPAN 202 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. With SPAN 201, satisfies Goal 10B of the General Education Requirements. PREREQ: SPAN 102 or equivalent. F, S

SPAN 205 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

SPAN 301 Spanish Conversation and Composition I 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 202 or equivalent. F, S

SPAN 302 Spanish Conversation and Composition 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 202 or equivalent and SPAN 301. F, S

SPAN 303 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 202 or equivalent experience. D

SPAN 305 Study Abroad 3 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 341 Survey of Spanish Literature and Civilization 3 credits.
Comprehensive overview of main currents of Peninsular cultural history and literature. Conducted in Spanish. PREREQ: SPAN 202. AF

SPAN 342 Survey of Latin American Literature and Civilization 3 credits.
Comprehensive overview of main currents of Latin American cultural history and literature. Conducted in Spanish. PREREQ: SPAN 202. AS

SPAN 381 Spanish Current Affairs 3 credits.
Study of contemporary Spanish culture through an examination of current sociocultural issues in Spanish speaking countries. Conducted in Spanish. PREREQ: Permission of instructor. R3

SPAN 400 Spanish Advanced Grammar 3 credits.
Survey of selected grammar and composition topics on the advanced level. PREREQ: SPAN 301 or SPAN 302 or permission of instructor. D

SPAN 412 Medieval Spanish Literature 3 credits.
Study of representative works of Medieval Spanish Literature with an emphasis on the major trends that shaped Spanish thought and letters. PREREQ: SPAN 301 or SPAN 302 or permission of instructor. D

SPAN 414 Golden Age Spanish Literature 3 credits.
Study of representative works of Renaissance and Baroque Spanish Literature with an emphasis on the major trends that shaped Spanish thought and letters. PREREQ: SPAN 301 or SPAN 302 or permission of instructor. D

SPAN 415 Cervantes and His Age 3 credits.
Study of Cervantes’ artistic creation and relation to the 16th and 17th centuries. The course includes Don Quijote and the Novelas Ejemplares. May be offered in English. PREREQ: SPAN 301 or SPAN 302 or permission of instructor. D

SPAN 422 Colonial Spanish American Literature 3 credits.
Study of major writers and their historical contexts from the conquest to the eve of independence, including indigenous and colonial prose, poetry, and drama. Conducted in Spanish. PREREQ: SPAN 301 or SPAN 302 or permission of instructor. D

SPAN 425 Nineteenth Century Spanish American Literature 3 credits.
Study of major writers and their historical contexts in the nineteenth century, including prose, poetry and drama. Conducted in Spanish. PREREQ: SPAN 301 or SPAN 302 or permission of instructor. AF

SPAN 430 Spanish Enlightenment and Romanticism 3 credits.
Consideration of literary currents from the beginning of the Bourbon Monarchy in Spain (1700) until 1868. Conducted in Spanish. PREREQ: SPAN 301 or SPAN 302 or permission of instructor. R3

SPAN 432 French Realism through Generation of '98 3 credits.
Examination of major literary works beginning with the realist and naturalist authors and concluding with the Generation of 1898. Conducted in Spanish. PREREQ: SPAN 301 or SPAN 302 or permission of instructor. R3

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)

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. The Leadership program at Idaho State University prepares students 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 sciences, education, military science, and communication.

Core Courses (9 credits)
LEAD 201 Foundations of Leadership 3 cr
LEAD 360 Student Leadership Practicum 3 cr
LEAD 480 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 308 Persuasion 3 cr
MGT 441 Organizational Behavior (PREREQ: MGT 312) 3 cr
COMM 441 Interpersonal Communication 3 cr
POLS 451 Political Communication and Bureaucratic Structure (PREREQ: POLS 405 recommended) 3 cr
COMM 452 Conflict Management 3 cr

Cultural Understanding

SOC 248 Social Diversity 3 cr
MGT 465 International Business (PREREQ: ECON 202, FIN 317) 3 cr

Leaders

POLS 403 The Presidency 3 cr
HIST 439 Women in History 3 cr
COMM 447 Rhetoric of Hitler and Churchill 3 cr

Ethics

PHIL 450 Ethical Theory 3 cr
POLS 458 Public Administration Ethics 3 cr
MGT 462 Business and Society 3 cr

LEAD Courses

LEAD 201 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 360 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 for up to 3 credits. PREREQ: LEAD 201. F, S
LEAD 480 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 360 and permission of the instructor. S

The James E. Rogers Department of Mass Communication

Chair and Professor: Terry Professors: Frazier, Jull
Assistant Professors: Beachboard, Couper, Hallaq, Kim
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 and advertising/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.

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

For the Bachelor of Arts in Mass Communication, five emphases are available: Advertising/Public Relations, Journalism, Media Studies, Television, and Visual Communication. Journalism, Television, and Advertising/Public Relations sequences require approximately 33 credits and an additional 15 credits from a selected component of specialized study outside the
emphases. These emphases are designed to give practical as well as theoretical skills in those areas. The Media Studies option requires 45 credit hours selected from Mass Communication and other departments and prepares students in a more general way for career options in business, industry or government.

**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 119 Introduction to Mass Media 3 cr
   - MC 121, 121L Reporting and Newswriting and Lab 4 cr
   - MC 215 Graphic Design 3 cr
   - MC 230, 230L Introduction to Photography and Lab 4 cr
   - Goals 1, 2, 6, 11, and 12 of the General Education Requirements
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 after completing the requirements for admission to major status. This application is usually done in the sophomore year. Majors must complete MATH 108 Intermediate Algebra and MATH 253 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. Students who do not receive advisement will not be allowed into blocked Mass Communication courses.

**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/Public Relations

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC 119</td>
<td>Introduction to Mass Media</td>
<td>3 cr</td>
</tr>
<tr>
<td>MC 121, 121L</td>
<td>Reporting and Newswriting and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>MC 200</td>
<td>Introduction to Advertising</td>
<td>3 cr</td>
</tr>
<tr>
<td>MGT 315</td>
<td>Intermediate Graphic Design</td>
<td>3 cr</td>
</tr>
<tr>
<td>MGT 355</td>
<td>Advertising Copywriting</td>
<td>3 cr</td>
</tr>
<tr>
<td>MGT 452</td>
<td>Mass Communication and Society</td>
<td>3 cr</td>
</tr>
<tr>
<td>MGT 480</td>
<td>Public Relations Programs</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

**Plus one of the following courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC 260</td>
<td>Photo and Graphic Workshop</td>
<td>3 cr</td>
</tr>
<tr>
<td>MC 300</td>
<td>Television Production</td>
<td>3 cr</td>
</tr>
<tr>
<td>MC 305, 305L</td>
<td>Photo Communication, and Lab</td>
<td>3 cr</td>
</tr>
<tr>
<td>MC 375</td>
<td>Special Projects in Advertising</td>
<td>3 cr</td>
</tr>
<tr>
<td>MC 418</td>
<td>Art of the Book</td>
<td>3 cr</td>
</tr>
<tr>
<td>MC 440</td>
<td>Media Law and Ethics</td>
<td>3 cr</td>
</tr>
<tr>
<td>MC 441</td>
<td>Intellectual Property and Commercial Speech</td>
<td>3 cr</td>
</tr>
<tr>
<td>MC 470</td>
<td>Communication Through Web Design</td>
<td>3 cr</td>
</tr>
<tr>
<td>MC 494</td>
<td>Media Internship</td>
<td>1-3 cr</td>
</tr>
<tr>
<td>MGT 325</td>
<td>Marketing Management</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

**In Addition:** Components, listed below

<table>
<thead>
<tr>
<th>Credits</th>
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<tbody>
<tr>
<td>15 cr</td>
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</table>

**TOTAL:** 45-56 cr

#### Emphasis in Journalism

**Required Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC 119</td>
<td>Introduction to Mass Media</td>
<td>3 cr</td>
</tr>
<tr>
<td>MC 121, 121L</td>
<td>Reporting and Newswriting and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>MC 230, 230L</td>
<td>Introduction to Photography and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>MC 270</td>
<td>Journalism History</td>
<td>3 cr</td>
</tr>
<tr>
<td>MC 321</td>
<td>Reporting of Public Affairs</td>
<td>3 cr</td>
</tr>
<tr>
<td>MC 325</td>
<td>Editing for Print Media</td>
<td>4 cr</td>
</tr>
<tr>
<td>MC 440</td>
<td>Media Law and Ethics</td>
<td>3 cr</td>
</tr>
<tr>
<td>MGT 452</td>
<td>Mass Communication and Society</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

**Plus one of the following courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC 215</td>
<td>Graphic Design</td>
<td>3 cr</td>
</tr>
<tr>
<td>MC 260</td>
<td>Photo and Graphic Workshop</td>
<td>3 cr</td>
</tr>
<tr>
<td>MC 300</td>
<td>Television Production</td>
<td>4 cr</td>
</tr>
<tr>
<td>MC 305, 305L</td>
<td>Photo Communication, and Lab</td>
<td>3 cr</td>
</tr>
<tr>
<td>MC 315</td>
<td>Intermediate Graphic Design</td>
<td>3 cr</td>
</tr>
<tr>
<td>MC 327</td>
<td>Magazine Article Writing</td>
<td>3 cr</td>
</tr>
<tr>
<td>MC 445</td>
<td>Editorial Writing</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

**In Addition:** Components, listed below

<table>
<thead>
<tr>
<th>Credits</th>
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<tbody>
<tr>
<td>15 cr</td>
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**TOTAL:** 45 cr

The Department also strongly recommends

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC 494</td>
<td>Media Internship</td>
<td>1-3 cr</td>
</tr>
</tbody>
</table>

**Emphasis in Media Studies**

**Required Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 307</td>
<td>Professional and Technical Writing</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 308</td>
<td>Business Communications</td>
<td>3 cr</td>
</tr>
<tr>
<td>MGT 428</td>
<td>Marketing Communications</td>
<td>3 cr</td>
</tr>
<tr>
<td>MGT 437</td>
<td>Business and Professional Speaking</td>
<td>3 cr</td>
</tr>
<tr>
<td>MGT 441</td>
<td>Intellectual Property and Commercial Speech</td>
<td>3 cr</td>
</tr>
<tr>
<td>MGT 455</td>
<td>Organizational Communication</td>
<td>3 cr</td>
</tr>
<tr>
<td>MGT 460</td>
<td>Media Law and Ethics</td>
<td>3 cr</td>
</tr>
<tr>
<td>MGT 462</td>
<td>Mass Communication and Society</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

**Recommended:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 312</td>
<td>Individual and Organizational Behavior</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

### Emphasis in Television

**Required Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC 119</td>
<td>Introduction to Mass Media</td>
<td>3 cr</td>
</tr>
<tr>
<td>MC 121, 121L</td>
<td>Reporting and Newswriting, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>MC 201</td>
<td>Writing for the Camera</td>
<td>2 cr</td>
</tr>
<tr>
<td>MC 230, 230L</td>
<td>Introduction to Photography, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>MC 260</td>
<td>Photo and Graphic Workshop</td>
<td>3 cr</td>
</tr>
<tr>
<td>MC 290</td>
<td>American Broadcasting</td>
<td>3 cr</td>
</tr>
<tr>
<td>MC 300</td>
<td>Television Production</td>
<td>3 cr</td>
</tr>
<tr>
<td>MC 306</td>
<td>Non-linear Editing</td>
<td>2 cr</td>
</tr>
<tr>
<td>MC 435</td>
<td>Television News</td>
<td>3 cr</td>
</tr>
<tr>
<td>MC 440</td>
<td>Media Law and Ethics</td>
<td>3 cr</td>
</tr>
<tr>
<td>MGT 441</td>
<td>Intellectual Property and Commercial Speech</td>
<td>3 cr</td>
</tr>
<tr>
<td>MC 450</td>
<td>Television Workshop</td>
<td>2 cr</td>
</tr>
<tr>
<td>MGT 452</td>
<td>Mass Communication and Society</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

**Plus two of the following courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC 321</td>
<td>Reporting of Public Affairs</td>
<td>3 cr</td>
</tr>
<tr>
<td>MC 350</td>
<td>Film-Style Production</td>
<td>3 cr</td>
</tr>
<tr>
<td>MC 451</td>
<td>Television Studio Directing</td>
<td>3 cr</td>
</tr>
<tr>
<td>MC 460</td>
<td>Corporate Video Production</td>
<td>3 cr</td>
</tr>
</tbody>
</table>
Students must earn a total of 55 or 56 credits.

The Department also strongly recommends:
M C 494 Media Internship 1-3 cr

Emphasis in Visual Communication

Required Courses:
M C 119 Introduction to Mass Media 3 cr
M C 120,120L Writing Across the Media, and Lab 4 cr
M C 215 Graphic Design 3 cr
M C 230,230L Introduction to Photography, and Lab 4 cr
M C 260 Photo and Graphic Workshop 3 cr
M C g440 Media Law and Ethics 3 cr
M C g441 Intellectual Property and Commercial Speech 3 cr
M C 315 Intermediate Graphic Design 3 cr
M C 316 Introduction to Graphic Design 3 cr
M C 341 Introduction to Public Relations 3 cr
M C 342 Senior Graphics Portfolio 1 cr
M C C 410 Advanced Photography 3 cr
M C 411 Intermediate Graphic Design 3 cr
M C 416 Print Production 3 cr
M C 418 Art of the Book 3 cr
M C 420 Communication through Web Design 3 cr
M C 425 Senior Graphics Portfolio 1 cr
M C 426 Senior Photography Portfolio 1 cr

Photography Track students also must take:
M C 210 History and Appreciation of Photography 3 cr
M C 301 Digital Imaging 3 cr
M C 412 Color Printing 3 cr
M C 415 Advanced Issues in Graphic Design 3 cr

In Addition:
Components, listed below 15 cr
TOTAL: 55 or 56 cr

The Department also strongly recommends:
M C 494 Media Internship 1-3 cr

Components

Students must take 15 credits from ONE of the following five component areas, subject to the following conditions:
1. At least nine of the 15 credits must be upper division.
2. None of the courses included in the component may also be used to satisfy any of the General Education Requirements.
3. The faculty advisor for each student must approve the courses selected to satisfy the component.
4. A minor or a second major may be substituted for the entire component requirement if approved by the student’s faculty advisor.

Component 1—Business and Economics
Business
Economics

Component 2—World Affairs
GEOL 115 History
Political Science

Component 3—Social Sciences
American Studies
Anthropology
Communication and Rhetorical Studies
Psychology
Sociology

Component 4—Arts and Humanities—Art
Communication and Rhetorical Studies
English
Music
Philosophy
Theatre

Component 5—Natural Sciences
Biological Sciences
Chemistry
Geology
Mathematics
Physics

Minor in Mass Communication

A minor in mass communication requires 18 credits including M C 119, M C 452, one additional 100-200 level class, one additional 300 level class, and one additional 400 level class, plus additional credits to total 18 from anywhere in the mass communication curriculum except M C 494, Media Internship, which is offered to majors only. Students must have declared a major before taking 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.

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 121 Reporting and Newswriting with a minimum C in order to be allowed to take MC 341 Introduction to Public Relations.

M C 119 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
M C 120 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 conciseness. PREREQ: ENGL 101 or placement into ENGL 102. COREQ: M C 120L. F
M C 120L Writing Across the Media Laboratory 1 credits. Assignments to apply principles from M C 120. COREQ: M C 120. F
M C 121 Reporting and Newswriting 4 credits. Fundamentals of reporting and newswriting. Elements of news, news sources, structure of news stories. Emphasis on reporting local news. Lectures/laboratories. PREREQ: ENGL 101 or placement into ENGL 102. COREQ: M C 121L. F, S
M C 121L Reporting and Newswriting Laboratory 0 credits. Assignments to apply principles from M C 121. F, S
M C 200 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. F
M C 201 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: M C 119 and Goal 1. D
M C 215 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
M C 230 Introduction to Photography 4 credits. Function and use of camera and darkroom. Fundamentals of composition and use of light. Students must have own camera, film, paper and some chemicals. Laboratory required. COREQ: M C 230L. F, S
M C 230L Introduction to Photography Laboratory 0 credits. Assignments to apply principles from M C 230. F, S
M C 241 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: Goal 1, M C 119, and either M C 120 or M C 121. S
M C 260 Photo and Graphic Workshop 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

M C 270 Journalism History 3 credits. The development of mass media from Gutenberg to the present with emphasis on American print journalism. R2

M C 290 American Broadcasting 3 credits. Introduction to the history, structure, economics, programming and regulation of broadcasting in the United States. PREREQ: M C 119. R2

M C 300 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: M C 119, M C 121, M C 230 or permission of instructor. F

MC 305 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: M C 230 or permission of instructor. COREQ: M C 305L. F

MC 305L Photo Communication Laboratory 0 credits. Assignments to apply principles from M C 305. F

M C 306 Non-linear Editing 2 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: M C 260 and M C 300 or permission of instructor with demonstrated professional experience. F

M C 315 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: M C 215. F

M C 321 Reporting of Public Affairs 3 credits. Reporting news of local government, including police department, city council, school board, courts and other agencies. PREREQ: M C 121 or media experience. COREQ: M C 321L. D

MC 321L Reporting of Public Affairs Lab 0 credits. Assignments to apply principles from M C 321. D

M C 325 Editing for Print Media 4 credits. Editing, typography, layout and desktop publishing of newspapers, advertising flers, pamphlets. Emphasis on laboratory projects. COREQ: M C 325L. F

M C 325L Editing for Print Media Lab 0 credits. Assignments to apply principles from M C 325. F

M C 327 Magazine Article Writing 3 credits. Writing nonfiction magazine articles to the requirements of publications chosen by the student. COREQ: M C 327L. D

M C 327L Magazine Article Writing Lab 1 credit. Assignments to apply principles from M C 327. D

M C 343 Public Relations Principles and Concepts 3 credits. The history, scope, ethics and functions of public relations. Particular attention given to understanding of publics and role of gaining public support for an activity, cause, movement or institution. PREREQ: C or better in either M C 120 or M C 121 and M C 241. F

M C 350 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

M C 355 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: Goal 1, M C 119, M C 121, and one of M C 200, M C 215 or M C 230 or permission of instructor with demonstrated professional experience. S

M C 360 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: M C 300 or permission of instructor with demonstrated professional experience. D

M C 367 Advertising Media Planning 3 credits. Selecting and evaluating advertising media. Media characteristics, media markets and comparisons, audience and product usage. Elements of a strategic media plan. Trends in mass communication media. PREREQ: C or better in M C 200 or permission of instructor. S

M C 375 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. PREREQ: Permission of instructor. D

M C 405 Color Printing 4 credits. A darkroom oriented class teaching practical applications of color theory in printing color negatives and slides. Weekly shooting and printing assignments required. PREREQ: M C 230 or permission of instructor. S

M C 405L Color Printing Laboratory 0 credits. Assignments to apply principles from M C 405. S

M C 410 Advanced Photography 4 credits. Advanced black and white techniques including controlled printing techniques and the Zone System. Intensive criticism of work and encouragement of individuals’ photographic growth. Lectures, laboratories. PREREQ: M C 230 or permission of instructor. F

M C 410L Advanced Photography Laboratory 0 credits. Assignments to apply principles from M C 410. F

M C 412 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: M C 260; either M C 405 or M C 410; permission of instructor. S

M C 415 Advanced Graphic Design 3 credits. Leading issues and problems in the current design field. Advanced development of style 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: M C 215 and M C 315 or permission of instructor with demonstrated professional experience. F

M C 418 Art of the Book 3 credits. Expands the traditional idea of book form with innovative structures and concepts. Textual and nontraditional formats and methods for generating ideas for works are addressed. Traditional techniques for bookbinding will also be included. Cross-listed as ART 418. D

M C 425 Senior Graphic Portfolio 1 credit. A professional portfolio. Work for this portfolio must be generated in this class. Covers all uses of typography. Course may be offered as independent project. PREREQ: M C 201, M C 260, M C 410 or permission of instructor with demonstrated professional experience. D

M C 426 Senior Graphic Portfolio 1 credit. Create a professional portfolio. Work for this portfolio must be generated in this class. Covers all uses of typography. May be offered as independent project. PREREQ: M C 201, M C 260, M C 410 or permission of instructor with demonstrated professional experience. D

M C 435 Television News 3 credits. Writing, reporting and producing the television news cast. Emphasis on proper technique as well as ethical and social issues. PREREQ: M C 121, M C 300. D

M C 440 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 g441 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. S

M C 445 Editorial Writing 3 credits. Writing and producing the editorial page including fundamentals of layout and opinion pieces, writing, syndication, letters to the editor, cartoons. D

M C 450 Television Workshop 2 credits. Practical experience producing television programs for local airing. May be repeated for up to 6 credits. PREREQ: M C 201 and 300 or permission of instructor with demonstrated professional experience. S

M C 451 Television Studio Directing 2 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 M C 435 or M C 450. PREREQ: M C 300 or instructor permission with demonstrated professional experience. D
Department of Mathematics

Chair and Professor: Fisher
Assistant Chair and Professor: Laquer
Professors: Egger, Hanin, R. Hill, Kratz, Kriloff, Lang, Palmer, Stowe, Wolper
Associate Professors: Chen, Ford, Gironella, Gryazin, Payne
Assistant Professors: Derryberry, Zhu
Senior Lecturers: Walker, Yost
Associate Lecturers: England, Kress, Martin, Miller, Mills, Potter
Assistant Lecturers: Bowen, Jones, Reed
Visiting Assistant Lecturer: Zhong
Part-time Adjunct Faculty: Barclay, Christensen, Dewey, Diicic, Harmon, Horwith, Judy, Lundeen, Mayes, Rude, Weaver
Emeriti: Cresswell, L. Hill, 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):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 181</td>
<td>Computer Science and Programming I*</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 170</td>
<td>Calculus I</td>
<td>4 cr</td>
</tr>
<tr>
<td>MATH 175</td>
<td>Calculus II</td>
<td>4 cr</td>
</tr>
<tr>
<td>MATH 275</td>
<td>Calculus III</td>
<td>4 cr</td>
</tr>
<tr>
<td>MATH 240</td>
<td>Linear Algebra</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 326</td>
<td>Elementary Analysis</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

The two courses: ENGR 165 Structured Programming and ENGR 166 Symbolic Programming, may be substituted for CS 181.

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.

Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH CORE</td>
<td>(See above)</td>
<td>21 cr</td>
</tr>
<tr>
<td>MATH 287</td>
<td>Foundations of Mathematics</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 360</td>
<td>Differential Equations</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 407</td>
<td>Modern Algebra</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 423</td>
<td>Introduction to Real Analysis</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Plus one of the following three courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 327</td>
<td>Vector Analysis</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 352</td>
<td>Introduction to Probability</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 362</td>
<td>Introduction to Complex Variables</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Plus 12 more credits of 400-level mathematics coursework, which includes completing two of the following sequences:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 407, 408</td>
<td>Modern Algebra I, II</td>
<td>6 cr</td>
</tr>
<tr>
<td>MATH 423, 424</td>
<td>Introduction to Real Analysis I, II</td>
<td>6 cr</td>
</tr>
<tr>
<td>MATH 441, 442</td>
<td>Introduction to Numerical Analysis I, II</td>
<td>6 cr</td>
</tr>
<tr>
<td>MATH 450, 451</td>
<td>Mathematical Statistics I, II</td>
<td>6 cr</td>
</tr>
</tbody>
</table>

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.
Required Courses:

Required Courses: (39 credits)

Mathematics Core (shown above) 21 cr
MATH 350 Statistical Methods 3 cr
MATH 352 Introduction to Probability 3 cr
MATH g50, g51 Mathematical Statistics I, II 6 cr
MATH g57 Applied Regression Analysis 3 cr
MATH g58 Experimental Design 3 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 (400-level) in another field, such as Biology, Economics, etc.

MATH 360 Differential Equations 3 cr
MATH g406 Advanced Linear Algebra 3 cr
MATH g423 Introduction to Real Analysis I 3 cr
MATH g424 Introduction to Real Analysis II 3 cr
MATH g441 Introduction to Numerical Analysis I 3 cr
MATH g442 Introduction to Numerical Analysis II 3 cr
MATH g53 Topics in Statistics* 3 cr
MATH g59 Applied Multivariate Analysis 3 cr

*This is a 1-3 credit course, repeated for up to 3 credits

Track B

C S 181 Introduction to Computer Science and Programming I 3 cr
MATH 170 Calculus I 4 cr
MATH 175 Calculus II 4 cr
MATH 275 Calculus III 4 cr
MATH 287 Foundations of Mathematics 3 cr
Approved MATH electives 3 cr
TOTAL MATH CREDITS: 21 cr
Electives to bring total to 64 cr variable
TOTAL: 64 cr

Minor in Mathematics

Required Courses:

MATH CORE (See above) 21 cr
MATH 360 Differential Equations 3 cr

Plus one course (3 credits) chosen from:

MATH 327 Elementary Analysis, Vector Analysis 3 cr
MATH g407 Modern Algebra 3 cr
MATH g441 Introduction to Numerical Analysis I 3 cr
MATH g530 Mathematical Statistics III 3 cr

Minor in Statistics

Required Courses: (27 credits)

Mathematics Core (shown above) 21 cr
MATH 350 Statistical Methods 3 cr
MATH 352 Introduction to Probability 3 cr

Additional Courses: (3 credits)

Choose 3 credits from among the following courses:

MATH g50 Mathematical Statistics I 3 cr
MATH g51 Mathematical Statistics II 3 cr
MATH g53 Topics in Statistics* 3 cr
MATH g57 Applied Regression Analysis 3 cr
MATH g58 Experimental Design 3 cr
MATH g59 Applied Multivariate Analysis 3 cr

*This is a 1-3 credit course, repeated for up to 3 credits

Mathematics Courses

All mathematics courses except MATH 015 have prerequisites. Students place into a course either by completing the prerequisite courses with a grade of C- or better (S in MATH 015 and 025) 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 015 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. Graded S/U. F, S

MATH 025 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. Graded S/U. PREREQ: MATH 015 or equivalent. F, S, Su


MATH 123 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 025. Satisfies Goal 3 of the General Education Requirements. F, S, Su

MATH 127 The Language of Mathematics 3 credits. Introduction to the precise language used throughout mathematics. Development of skills including reading with comprehension, expressing mathematical thoughts clearly, reasoning logically, and employing common patterns of mathematical thought. PREREQ: MATH 025. Satisfies Goal 3 of the General Education Requirements. S

MATH 130 Finite Mathematics 3 credits. Introduction to probability, linear systems, inequalities, and linear programming. Applications directed to non-physical science areas. PREREQ: MATH 108. Satisfies Goal 3 of the General Education Requirements. S


MATH 144 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 143. F, S, Su

MATH 147 Pre-Calculus 5 credits. Asingle one-semester course equivalent to College Algebra (MATH 143) plus Trigonometry (MATH 144). Credit cannot be granted in both MATH 143 and MATH 147, or in both MATH 144 and MATH 147. PREREQ: MATH 108. F, S

MATH 160 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 160 and MATH 170. PREREQ: MATH 143. Satisfies Goal 3 of the General Education Requirements. F, S, Su

MATH 170 Calculus I 4 credits. First course in the sequence 170, 175, 275. Real-valued functions of one real variable: limits, continuity, derivatives, integrals, applications. Credit cannot be granted in both MATH 160 and MATH 170. PREREQ: MATH 144 or MATH 147. Satisfies Goal 3 of the General Education Requirements. F, S, Su


MATH 187 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. Cross-listed as CS 187. PREREQ: CS 181. S

MATH 240 Linear Algebra 3 credits. Introduction to linear algebra. Linear systems, matrices, determinants, vector spaces, linear transformations, linear independence, eigenvalues and eigenvectors, orthogonalization. PREREQ: MATH 170. F, S

MATH 257 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. PREREQ: MATH 143. F

MATH 258 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. PREREQ: C- or better in MATH 143, MATH 147, CET 120, or ELTR 142, or one of the following: ACT ≥ 26, SAT ≥ 619, or pass Math Placement Exam Part C. S


MATH 287 Foundations of Mathematics 3 credits. Logic and proofs, sets, functions, relations, mathematical induction, and the cardinality of sets. PREREQ: MATH 170. F

MATH 326 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 240 and MATH 275. S

MATH 327 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 275. F

MATH 343 Modern Geometry I 3 credits. Planar Euclidean geometry. Rigid motions and symmetry in the plane. PREREQ: MATH 240 and MATH 287. F

MATH 350 Statistical Methods 3 credits. A calculus-based introduction to statistical procedures including simple regression, basic experimental design, and non-parametric methods. PREREQ: MATH 160 or MATH 170. F, S

MATH 352 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 175 or permission of instructor. F

MATH 355 Operations Research I 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 130 or MATH 240, or permission of instructor. AF

MATH 356 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 355. AS

MATH 360 Differential Equations 3 credits. Theory and applications of ordinary differential equations. PREREQ: MATH 175; MATH 275 recommended. F, S

MATH 362 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 326 or permission of instructor. D

MATH 406 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 240. S

MATH 407 Modern Algebra I 3 credits. Rings, fields, groups, algebras, and selected topics in abstract algebra. PREREQ: MATH 240 and MATH 287. F

MATH 408 Modern Algebra II 3 credits. Rings, fields, groups, algebras, and selected topics in abstract algebra. PREREQ: MATH 407. S

MATH 421 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. Cross-listed as ENGR 421. PREREQ: MATH 360. F

MATH 422 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. Cross-listed as ENGR 422. PREREQ: ENGR 421 or MATH 421. S

MATH 423 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 240, MATH 326, and MATH 360. F

MATH 424 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 423. S

MATH 435 Elementary Number Theory 3 credits. Diophantine equations, prime number theorems, residue systems, theorems of Fermat and Wilson, and continued fractions. PREREQ: MATH 407. D

MATH 441 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 240, MATH 326, and MATH 360 or permission of instructor. F

MATH 442 Introduction to Numerical Analysis II 3 credits. Extension of MATH 441 for students who wish to pursue more advanced techniques with an 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 441. PREREQ: MATH 441. S

MATH 444 Modern Geometry II 3 credits. Transformation groups. Topics from hyperbolic, projective, and other geometries. S

MATH 450 Mathematical Statistics I 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 326. F

MATH 451 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 450. S
Department of Military Science
(Army ROTC)

Chair: Dewalt
Assistant Professors: Christopher, Logan
Instructing: Larson
Scholarship: Anglesey

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.

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 Basic Course, but lacking the credit for the Basic Course, may satisfy the requirements by attending a 5-week 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 33-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 five-week 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 Precommissioning Training (PCT). The PCT 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 $20,000.00 a year for college tuition and education fees, OR room and board (chosen by the student). There is an additional book allowance. There are also limited numbers of 4, 3 and 2-year scholarships available once a student is on campus. In addition, Army scholarship winners also receive a taxfree 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.mil/scholarship. 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). The Military Science department offers scholarships for room and board, room, and various monetary amounts. Applications are available from the department (Garrison Hall, Building 63, Room B9 or 208-282-4264).

Financial Assistance
Each contracted student receives an allowance of between $300 and $500 a month for up to ten months a year for two to three years. Summer training pay, in addition to meals, quarters, medical/dental attention, and travel pay. A uniform allowance of $400 is paid to each commissioned officer upon entry into active duty.

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 Military Science Courses
(For contracted cadets ONLY)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSL 301, 301L</td>
<td>Adaptive Tactical Leadership, and Lab</td>
<td>4</td>
</tr>
<tr>
<td>MSL 302, 302L</td>
<td>Leadership in Changing Environments, and Lab</td>
<td>4</td>
</tr>
<tr>
<td>MSL 310</td>
<td>ROTC Physical Fitness*</td>
<td>1</td>
</tr>
<tr>
<td>MSL 320</td>
<td>Leadership in U.S. Military History</td>
<td>3</td>
</tr>
<tr>
<td>MSL 401, 401L</td>
<td>Developing Adaptive Leaders, and Lab</td>
<td>4</td>
</tr>
<tr>
<td>MSL 402, 402L</td>
<td>Leadership in a Complex World, and Lab</td>
<td>4</td>
</tr>
<tr>
<td>MSL 492</td>
<td>Military Science Internship (SMP)**</td>
<td>6</td>
</tr>
</tbody>
</table>

**Required if student is on scholarship and/or contracted.***

*Attendance at Leader Development and Assessment Course (MSL 390) is required of all contracted students normally between junior and senior year. Students may sign up for MSL 390 to receive academic credit for Leader Development and Assessment Course.

Minor in Military Science

<table>
<thead>
<tr>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSL 301, 301L</td>
<td>Adaptive Team Leadership, and Lab</td>
<td>4</td>
</tr>
<tr>
<td>MSL 302, 302L</td>
<td>Leadership in Changing Environments</td>
<td>4</td>
</tr>
<tr>
<td>MSL 310</td>
<td>ROTC Physical Fitness*</td>
<td>4</td>
</tr>
<tr>
<td>MSL 320</td>
<td>Leadership in Military History</td>
<td>3</td>
</tr>
<tr>
<td>MSL 390</td>
<td>Leader Development and Assessment</td>
<td>6</td>
</tr>
<tr>
<td>MSL 401, 401L</td>
<td>Developing Adaptive Leaders</td>
<td>4</td>
</tr>
<tr>
<td>MSL 402, 402L</td>
<td>Leadership in a Complex World</td>
<td>4</td>
</tr>
<tr>
<td>MSL 492</td>
<td>Military Science Internship (SMP)**</td>
<td>6</td>
</tr>
</tbody>
</table>

TOTAL: 35 credits

*This is a 1-credit course, taken once each semester, for a total of 4 credits

**Optional if student qualifies

Military Science and Leadership Courses

MSL 101 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 101L. F

MSL 101L 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 101. F

MSL 102 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 102L. S

MSL 102L 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 102. S

MSL 104 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 110 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. Cross-listed as PEAC 110. F, S

MSL 201 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 201L. F

MSL 201L 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 is also applied. COREQ: MSL 201. F

MSL 202 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 leader-
Sciences College of the success or failure of military operations. Battles throughout U.S. history are described from history. Accounts from major wars and of changes made as a result of lessons learned is also applied. MSL 302. S

MSL 290 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 301 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 MLS student. COREQ: MSL 301L. F

MSL 301L 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 is also applied. COREQ: MSL 301. F

MSL 302 Leadership in Changing Environments 4 credits. Intense situational leadership challenges to build cadet awareness and skills in leading tactical operations up to platoon level. Review aspects of combat, stability, and support operations; conduct military briefings; develop operation orders. Explore, evaluate, and develop skills in decision-making, persuading, and motivating team members in the COE. PREREQ: MSL 301. COREQ: MSL 302L. S

MSL 302L 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 is also applied. COREQ: MSL 302. S

MSL 310 ROTC Physical Fitness 1 credit. Participate in, plan and lead physical fitness programs. Develop the physical fitness requirements of an officer in the Army. Emphasis on developing an individual fitness program and the role of exercise and fitness in one’s life. May be repeated for up to 8 credits by contracted Military Science students. COREQ: Enrolled in MSL class. F, S

MSL 320 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 380 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 390). PREREQ: MSL 390 and one clinical nursing course. F

MSL 390 Leader Development and Assessment Course (LDAC) 6 credits. Culmination of MSL 301 and MSL 302; Leader Development and Assessment Course at Fort Lewis, Washington. Required of all contracted students, normally between junior and senior years. PREREQ: MSL 301 and MSL 302. F

MSL 401 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 301 and MSL 302. COREQ: MSL 401L. F

MSL 401L 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 is also applied. COREQ: MSL 402. F


MSL 402L 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 is also applied. COREQ: MSL 402. S

MSL 492 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

Museum

Idaho Museum of Natural History

Acting Director, and Director, Earl R. Swanson Archaeological Repository: Lohse
Assistant Director and Public Programs Division Head: Thorne-Ferrel Research Curator and Anthropology Division Head: Maschner Research Curator and Earth Science Division Head: Tapanila Research Curator, Acting Life Science Division Head, and Curator, Ray J. Davis Herbarium: Williams Affiliate Research Curator and Director, Crabtree Experimental Archaeology Lab: Holmer Affiliate Research Curator and Head, Wasden Research Project: Dudgeon Emeriti: Akersten, Holte, Trost

Museum Courses

MUSE 411 Basic Museology 2 credits. History, philosophy, purposes, organization and administration of museums. Practical work in collections management and museum interpretation. D

MUSE 450 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 411 or permission of instructor. D

Department of Music

Chair and Professor: Earles
Professors: Anderson, Bond, Brooks, Lane
Associate Professors: Hasenpflug, Livingston Friedley
Assistant Professors: Park, Schulte
Lecturer: Helman
Assistant Lecturer: Friedley
Adjunct Faculty: G. Adams, M. Adams, Banyas, Brien, Drake, Hughes, LoPiccolo, O’Brien
Affiliate Faculty: Grayson 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 music. 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 semester and section of class piano or private instruction to which a student will be admitted. All music majors must successfully complete the department’s required piano proficiency to graduate. Credits in MUSC 118-119, MUSC 218-219, or MUSC 120 may be used toward passing the piano proficiency. The student must register for piano or piano class each semester until passing the proficiency exam.

Special Graduation Requirements
1. An overall accumulative grade point average of 2.0 for all University courses is required for graduation. The Music Department requires a Music GPA of 2.5 as a standard for graduation. An additional requirement is that a music major or minor must earn no less than a “C-” grade in each music course. Furthermore, at least a “C-” grade must be received to advance to another course for which the earlier course is a prerequisite, or to advance to the next level of a continuation course.
2. All Music majors must pass the department’s Junior Standing Exam (usually taken at the end of the sophomore year) and register for, and pass, applied music lessons, a minimum of 2 semesters at the 300 level, and 1-2 semesters at the 400 level.

Music Department Handbook
A handbook is available online at [http://www.isu.edu/music/handbook.shtml](http://www.isu.edu/music/handbook.shtml) which describes more completely the facilities, policies, course sequencing and departmental operations. Prospective students and music majors/minors are urged to become familiar with its contents.

Bachelor of Music
The Bachelor of Music degree is designed for students preparing for graduate study or careers in performance. A student majoring in Music Performance may choose to specialize in voice, piano, guitar, strings, winds, or percussion.

Basic Non-Music Requirements

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<thead>
<tr>
<th>Goal</th>
<th>Credits</th>
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<tr>
<td>1</td>
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<tr>
<td>2</td>
<td>3 cr</td>
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<td>10B</td>
<td>8 cr</td>
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Basic Music Requirements (common to all options)

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<th>Course Name</th>
<th>Credits</th>
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<td>Theory of Music II</td>
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<td>(seven semesters)</td>
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<td>The World of Music (Goal 6)</td>
<td>4 cr</td>
</tr>
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<td>MUSC 113</td>
<td>Aural Skills I</td>
<td>1 cr</td>
</tr>
<tr>
<td>MUSC 114</td>
<td>Aural Skills II</td>
<td>1 cr</td>
</tr>
<tr>
<td>MUSC 203</td>
<td>Theory of Music III</td>
<td>3 cr</td>
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<td>MUSC 204</td>
<td>Theory of Music IV</td>
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<td>MUSC 213</td>
<td>Aural Skills III</td>
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<td>MUSC 306</td>
<td>Music History III</td>
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<td>MUSC 311</td>
<td>Form and Analysis</td>
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<td>MUSC 495</td>
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<td>Upper Division Music Theory/History Elective</td>
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<tr>
<td>Other Music Electives**</td>
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</tbody>
</table>

* Piano proficiency is required for all degree candidates. Applied music secondary credits (MUSC 118-119, MUSC 218-219, or MUSC 120) 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).
Voice Option

MUSC 225 Voice Diction 2 cr
MUSC 319 Choral Conducting 2 cr
MUSC 325 Advanced Voice Diction 2 cr
MUSC g419 Voice Literature 3 cr
MUSC g420 Voice Pedagogy 3 cr
Applied Music (voice) 16 cr
Large Ensembles (choir) 8 cr
Opera Workshop 2 cr

Piano Option

MUSC 319 Choral Conducting 2 cr
MUSC 320 Instrumental Conducting 2 cr
MUSC 395 Junior Recital 1 cr
MUSC g413 Piano Literature 2 cr
MUSC g414 Piano Pedagogy 2 cr
Applied Music (piano) 24 cr
Large Ensembles (band, orchestra, choir) 7 cr
Chamber Music (keyboard collaboration) 4 cr

Instrumental Option

MUSC 320 Instrumental Conducting 2 cr
MUSC g411 Instrument Literature 2 cr
MUSC g412 Instrument Pedagogy 2 cr
Applied Music (major instrument) 24 cr
Large Ensembles (band, orchestra, choir) 8 cr
Chamber Music (instrumental ensemble) 4 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 300 and above. Refer to the Teacher Education Program in the College of Education section of this Undergraduate Catalog.

Basic Music Requirements

MUSC 103 Theory of Music I 3 cr
MUSC 104 Theory of Music II 3 cr
MUSC 107 Recital attendance (7 semesters) 0 cr
MUSC 108 The World of Music (Goal 6) 4 cr
MUSC 113 Aural Skills I 1 cr
MUSC 114 Aural Skills II 1 cr
MUSC 127 Class Voice 1 cr
OR
MUSC 172 ISU Women’s Choir 1 cr
OR
MUSC 173 Concert Choir 1 cr
MUSC 203 Theory of Music III 3 cr
MUSC 204 Theory of Music IV 3 cr
MUSC 213 Aural Skills III 1 cr
MUSC 214 Aural Skills IV 1 cr
MUSC 252 Introduction to Music Education 1 cr
MUSC 255 Woodwind Methods 2 cr
MUSC 256 Brass Methods 2 cr
MUSC 258 Percussion Methods 2 cr
MUSC 259 String Methods 2 cr
MUSC 304 Music History I 3 cr
MUSC 305 Music History II 3 cr
MUSC 306 Music History III 3 cr
MUSC 311 Form and Analysis 2 cr
MUSC 312 Music Technology 2 cr

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.

Degree candidates whose applied major is voice are encouraged to take a second year of a foreign language - French or German.

Basic Music Requirements

MUSC 103 Theory of Music I 3 cr
MUSC 104 Theory of Music II 3 cr
MUSC 107 Recital attendance (7 semesters) 0 cr
MUSC 108 The World of Music (Goal 6) 4 cr
MUSC 113 Aural Skills I 1 cr
MUSC 114 Aural Skills II 1 cr
MUSC 203 Theory of Music III 3 cr
MUSC 204 Theory of Music IV 3 cr
MUSC 213 Aural Skills III 1 cr
MUSC 214 Aural Skills IV 1 cr

Bachelor of Music Education

MUSC 225 Voice Diction 2 cr
MUSC 319 Choral Conducting 2 cr
MUSC 325 Advanced Voice Diction 2 cr
MUSC g419 Voice Literature 3 cr
MUSC g420 Voice Pedagogy 3 cr
Applied Music (voice) 16 cr
Large Ensembles (choir) 8 cr
Opera Workshop 2 cr

Piano Option

MUSC 319 Choral Conducting 2 cr
MUSC 320 Instrumental Conducting 2 cr
MUSC 395 Junior Recital 1 cr
MUSC g413 Piano Literature 2 cr
MUSC g414 Piano Pedagogy 2 cr
Applied Music (piano) 24 cr
Large Ensembles (band, orchestra, choir) 7 cr
Chamber Music (keyboard collaboration) 4 cr

Instrumental Option

MUSC 320 Instrumental Conducting 2 cr
MUSC g411 Instrument Literature 2 cr
MUSC g412 Instrument Pedagogy 2 cr
Applied Music (major instrument) 24 cr
Large Ensembles (band, orchestra, choir) 8 cr
Chamber Music (instrumental ensemble) 4 cr

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.

Degree candidates whose applied major is voice are encouraged to take a second year of a foreign language - French or German.

Basic Music Requirements

MUSC 103 Theory of Music I 3 cr
MUSC 104 Theory of Music II 3 cr
MUSC 107 Recital attendance (7 semesters) 0 cr
MUSC 108 The World of Music (Goal 6) 4 cr
MUSC 113 Aural Skills I 1 cr
MUSC 114 Aural Skills II 1 cr
MUSC 203 Theory of Music III 3 cr
MUSC 204 Theory of Music IV 3 cr
MUSC 213 Aural Skills III 1 cr
MUSC 214 Aural Skills IV 1 cr

Bachelor of Music Education

MUSC 225 Voice Diction 2 cr
MUSC 319 Choral Conducting 2 cr
MUSC 325 Advanced Voice Diction 2 cr
MUSC g419 Voice Literature 3 cr
MUSC g420 Voice Pedagogy 3 cr
Applied Music (voice) 16 cr
Large Ensembles (choir) 8 cr
Opera Workshop 2 cr

Piano Option

MUSC 319 Choral Conducting 2 cr
MUSC 320 Instrumental Conducting 2 cr
MUSC 395 Junior Recital 1 cr
MUSC g413 Piano Literature 2 cr
MUSC g414 Piano Pedagogy 2 cr
Applied Music (piano) 24 cr
Large Ensembles (band, orchestra, choir) 7 cr
Chamber Music (keyboard collaboration) 4 cr

Instrumental Option

MUSC 320 Instrumental Conducting 2 cr
MUSC g411 Instrument Literature 2 cr
MUSC g412 Instrument Pedagogy 2 cr
Applied Music (major instrument) 24 cr
Large Ensembles (band, orchestra, choir) 8 cr
Chamber Music (instrumental ensemble) 4 cr

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.

Degree candidates whose applied major is voice are encouraged to take a second year of a foreign language - French or German.

Basic Music Requirements

MUSC 103 Theory of Music I 3 cr
MUSC 104 Theory of Music II 3 cr
MUSC 107 Recital attendance (7 semesters) 0 cr
MUSC 108 The World of Music (Goal 6) 4 cr
MUSC 113 Aural Skills I 1 cr
MUSC 114 Aural Skills II 1 cr
MUSC 203 Theory of Music III 3 cr
MUSC 204 Theory of Music IV 3 cr
MUSC 213 Aural Skills III 1 cr
MUSC 214 Aural Skills IV 1 cr
MUSC 168 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. F, S

MUSC 169 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. F, S

MUSC 170 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

MUSC 172ISU Women’s Choir 1 credit.
Study, rehearsal and performance of traditional and non-traditional choral music for treble voices. May be repeated. F, S

MUSC 173 Concert Choir 1 credit.
Study and performance of the entire body of choral music. Includes several performances and concerts. Emphasis on obtaining high musical standards and levels of choral vocal proficiency. Open to all students by audition. May be repeated. F, S

MUSC 177 Symphonic Band 1 credit.
Rehearsal and performance of standard and contemporary wind literature in on- and off-campus concerts. Open to all students by audition. May be repeated. F, S

MUSC 178 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

MUSC 179 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

MUSC g463 Chamber Orchestra 1 credit.
Study and performance of traditional and modern works for chamber orchestra. PREREQ: Junior level standing in applied music. F, S

MUSC g466 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

MUSC g467 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

MUSC g468 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

MUSC g469 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

MUSC g472 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

MUSC g473 Concert Choir 1 credit.
Study and performance of the entire body of choral music. Includes several performances and concerts. Emphasis on obtaining high musical standards and levels of choral vocal proficiency. May be repeated. PREREQ: Junior level standing in applied music. F, S

MUSC g477 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 g478 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 pays 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 100 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 300 level and 1-2 semesters at the 400 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.

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<tr>
<th>Instrument</th>
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<td>Percussion</td>
<td>185</td>
<td>285</td>
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<td>485</td>
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</table>

Any student registering in any of the above course numbers will be required to register for MUSC 107 and attend the weekly General Recital Hours/Studio Classes and evening concerts. 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.

MUSC 120 Piano Secondary 1 cr
MUSC 130 Voice Secondary 1 cr
MUSC 140 Organ Secondary 1 cr
MUSC 160 Strings Secondary 1 cr
MUSC 164 Brass Secondary 1 cr
MUSC 174 Woodwinds Secondary 1 cr
MUSC 184 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 100 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 100 and MUSC 108. Satisfies Goal 6 of the General Education Requirements. F, S, Su

MUSC 102 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 103 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 118-119 or MUSC 218-219. PREREQ: MUSC 102 or equivalent. F

MUSC 104 Theory of Music II 3 credits.
Continuation of MUSC 103. PREREQ: MUSC 103 AND MUSC 113. S

MUSC 106 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. Satisfies Goal 6 of the General Education Requirements. F, S, Su

MUSC 107 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 121-485. Graded S/U. F, S

MUSC 108 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 100 and MUSC 108. Satisfies Goal 6 of the General Education requirements. F

MUSC 113 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 102 or equivalent. F

MUSC 114 Aural Skills II 1 credit.
Continued development of skills in sight singing, aural
MUSC 103 Guitar Technique I 1 credit. Allows students who have taken concurrent guitar class to participate in the music major. Normally taken concurrently with MUSC 104. F, S

MUSC 126 Intermediate Guitar Class 1 credit. Intermediate guitar technique and repertoire. Open to any student. Students must provide their own guitars. F, S

MUSC 127 Class Voice I credit. Basic singing technique and vocal repertoire. Open to any student, including elementary education majors completing requirements. F, S

MUSC 203 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 104 and MUSC 114. F

MUSC 204 Theory of Music IV 3 credits. Continuation of MUSC 203. PREREQ: MUSC 203 and MUSC 213. S

MUSC 213 Aural Skills I 1 credit. Continued development of skills in singing, aural recognition, and critical listening. Designed to correlate with Theory of Music III. PREREQ: MUSC 104 and MUSC 114. F

MUSC 214 Aural Skills II 1 credit. Continued development of skills in singing, aural recognition, and critical listening. Designed to correlate with Theory of Music IV. PREREQ: MUSC 203 and MUSC 213. S

MUSC 218 Class Piano I 1 credit. Primarily for music and elementary education majors completing piano proficiency requirements. Normally taken concurrently with MUSC 203. F

MUSC 219 Class Piano II 1 credit. Primarily for music and elementary education majors completing piano proficiency requirements. Normally taken concurrently with MUSC 204. S

MUSC 225 Voice Diction I 1 credit. Principles of voice diction with emphasis on French, German and Latin. PREREQ: MUSC 225. D

MUSC 233 Elementary Music Methods 3 credits. Methods and materials of instrumental music education in secondary schools including: ensemble instruction, classroom management, and organization. PREREQ: MUSC 204, MUSC 214, and MUSC 252. D
MUSC g408 Chamber Music Literature 3 credits. Masterworks of chamber music literature. PREREQ: MUSC 304, MUSC 305 and MUSC 306. D

MUSC g411 Instrument Literature 2 credits. A study of instructional materials and literature for an orchestral instrument or guitar. PREREQ: Junior level standing in applied music or permission of instructor. D

MUSC g412 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 g413 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 g414 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 g415 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 305 and MUSC 306 or equivalent. D

MUSC g416 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: MUSIC 305 and MUSC 306 or equivalent. D

MUSC g418 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 305 and MUSC 306 or equivalent. D

MUSC g419 Voice Literature 3 credits. Instructional materials and literature for voice. PREREQ: Junior level standing in applied music or permission of instructor. F

MUSC g420 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. S

MUSC g424 Music in the Baroque Era 3 credits. Intensive study of music from Monteverdi through J.S. Bach. PREREQ: MUSC 304. D

MUSC g425 Music in the Classical Era 3 credits. Intensive study of music in the Classical era, principally 1730 through Beethoven. PREREQ: MUSC 305. D

MUSC g426 Music in the Romantic Era 3 credits. Intensive study of music in the Romantic era, principally 1800 to 1900. PREREQ: MUSC 305. D

MUSC g427 Music in the Modern Era 3 credits. Intensive study of music in the Modern era, principally since 1900. PREREQ: MUSC 306. D

MUSC g429 Advanced Music History Survey 3 credits. Study of music history topics, including vocal and instrumental forms and styles. PREREQ: MUSC 304, MUSC 305 and MUSC 306. D

MUSC g432 Instrumental Arranging 2 credits. Arranging music for different instrumental combinations and various textures. PREREQ: MUSC 204 D

MUSC g433 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 204 or permission of instructor. F, S

MUSC g435 Analysis of Musical Styles 2 credits. The techniques of stylistic analysis of music from the Baroque period through the 20th century. PREREQ: MUSC 311 D

MUSC g438 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 311 D

MUSC g439 Advanced Music Theory Survey 3 credits. Study of music theory methods, including harmonic and formal analysis. PREREQ: MUSC 311. D

MUSC g445 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 320. D

MUSC g446 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 319. D

MUSC g491 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 495 Senior Recital 2 credits. Graded S/U. D

MUSC 497 Workshop 1-2 credits. For up to 7 credits. PREREQ: Permission of instructor. May be repeated for up to 7 credits. PREREQ: Permission of instructor. D

MUSC 498 Independent Study 1-4 credits. Advanced studies in selected topics in music. May be repeated for up to 6 credits with change of topic. PREREQ: MUSC 311 D

MUSC g499 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 495 Senior Recital 2 credits. Graded S/U. D

MUSC 497 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 Physics

Interim Chair and Professor: Shropshire Professors: Brey, Dale, Gesell, Wells Research Professor: Beezhold Associate Professors: Cole, Keeter, Tatar Research Associate Professors: Choufani, Dimitrov, Forest, Hunt Assistant Professor: Harris Research Assistant Professors: Chandler, Mitchell

Senior Lecturer: Hackworth Visiting Assistant Lecturer: Bernabe

Research Instructors: Claver, Dunker

Adjoint Faculty: Clarke, DeVeaux, Espy, Harker, James, Jones, Merrill, Nigg, Roney, Schrader, White

Affiliate Faculty: Blackburn, Cummings, DeVeaux, Espy, Farfan, Franckowiak, Hall, Harker, James, Langley, Merrill, Millward, Nigg, Neischmidt, O’Rear, Otis, Rich, Ritter, Roney, White

Emeriti: Harmon, Parker, Price, 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 technical learning objectives are to achieve a hands-
on core competence that is appropriate for a technician. This includes the general education goals 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 at the technician level.

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.

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 decline a major in one of the physics programs, 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 the Department of Physics.

### Bachelor of Arts in Physics

The following courses are required in addition to the General Education Requirements for the B.A. degree:

- **PHYS 111-112** General Physics Laboratory 2 cr
- **PHYS 211-212** Engineering Physics 8 cr OR
- **PHYS 213-214** Engineering Physics Laboratory 2 cr OR
- **PHYS 301** Modern Physics 3 cr
- **PHYS 303** Advanced Modern Physics 3 cr
- **PHYS 304** Advanced Modern Physics 3 cr
- **PHYS 406** Advanced Physics Laboratory II 2 cr
- **PHYS 416** Radiation Detection and Measurement 3 cr

At least 24 credits of Physics, including:

**PHYS 211-212** Engineering Physics 8 cr OR
**PHYS 213-214** Engineering Physics Laboratory 2 cr OR
**PHYS 301** Modern Physics 3 cr
**PHYS 303** Advanced Modern Physics 3 cr

11-13 credits of electives (depending upon the introductory sequence) with at least 6 credits of 400-level courses (PHYS 492 cannot be counted toward the latter requirement).

### Bachelor of Science in Physics

#### (Health Physics Emphasis)

The following courses are required in addition to the General Education Requirements for the B.S. degree:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 111-112</td>
<td>General Physics Laboratory</td>
<td>2 cr</td>
</tr>
<tr>
<td>PHYS 211-212</td>
<td>Engineering Physics</td>
<td>8 cr</td>
</tr>
<tr>
<td>PHYS 213-214</td>
<td>Engineering Physics Laboratory</td>
<td>2 cr</td>
</tr>
<tr>
<td>PHYS 301</td>
<td>Intermediate Laboratory I</td>
<td>2 cr</td>
</tr>
<tr>
<td>PHYS 406</td>
<td>Advanced Modern Physics Laboratory</td>
<td>2 cr</td>
</tr>
</tbody>
</table>

**IN ADDITION:** Physics electives approved by the department 4 cr

### Bachelor of Science in Physics

- **PHYS 421,422** Electricity and Magnetism 6 cr
- **PHYS 483** Theoretical Mechanics 4 cr
- **PHYS 492** Colloquium in Physics 1 cr
- Plus 6 additional 400-level PHYS credits

#### Physics Minor

- **MATH 170** Calculus I 4 cr
- **MATH 175** Calculus II 4 cr
- **MATH 275** Calculus III 4 cr
- **MATH 360** Differential Equations 3 cr
- **PHYS 211,212** Engineering Physics 8 cr
- **PHYS 301** Modern Physics 3 cr
- **PHYS 403** Advanced Modern Physics 3 cr

#### Bachelor of Science in Physics

**IN ADDITION:** Physics electives approved by the department 4 cr

### Bioscience Track

- **BIOL 101, 102** Biology I and Lab 4 cr
- **BIOL 301** Anatomy and Physiology 4 cr
- **CHEM 102, 103** Introduction to Organic and Biochemistry, and Lab 4 cr

### Applied Science Track

- **MATH 147** Precalculus 5 cr
- **PHYS 416** Radiation Detection and Measurement 3 cr
- **PHYS 431** Radiation Physics I 3 cr
- **PHYS 432** Radiation Physics II 3 cr
- **PHYS 433** External Dosimetry 3 cr
- **PHYS 434** Internal Dosimetry 3 cr
- **PHYS 455** Topics in Health Physics I 2 cr
- **PHYS 456** Topics in Health Physics II 2 cr
- **PHYS 480** Health Physics Capstone 3 cr
- **PHYS 488** Advanced Radiobiology 3 cr
- **PHYS 492** Colloquium 2 cr

### Mathematics and Computer Science

- **MATH 147** Precalculus 5 cr
- **PHYS 416** Radiation Detection and Measurement 3 cr
- **PHYS 431** Radiation Physics I 3 cr
- **PHYS 432** Radiation Physics II 3 cr
- **PHYS 433** External Dosimetry 3 cr
- **PHYS 434** Internal Dosimetry 3 cr
- **PHYS 455** Topics in Health Physics I 2 cr
- **PHYS 456** Topics in Health Physics II 2 cr
- **PHYS 480** Health Physics Capstone 3 cr
- **PHYS 488** Advanced Radiobiology 3 cr
- **PHYS 492** Colloquium 2 cr

### Physics Minor

- **MATH 170** Calculus I 4 cr
- **MATH 175** Calculus II 4 cr
- **MATH 275** Calculus III 4 cr
- **MATH 360** Differential Equations 3 cr
- **PHYS 211,212** Engineering Physics 8 cr
- **PHYS 301** Modern Physics 3 cr
- **PHYS 403** Advanced Modern Physics 3 cr

### IN ADDITION:** Physics electives approved by the department 4 cr

### Bachelor of Science in Physics

**IN ADDITION:** Physics electives approved by the department 4 cr

### Bioscience Track

- **BIOL 209** General Ecology 3 cr
- **BIOL 315** Introduction to Biometry 3 cr
- **MATH 160** Applied Calculus 3 cr
- **MATH 111** General Physics I 3 cr
- **MATH 112** General Physics II 3 cr
- **PHYS 113,114** General Physics Laboratory 2 cr

### Applied Science Track

- **MATH 350** Statistical Methods 3 cr
- **MATH 170** Calculus I 4 cr
- **MATH 175** Calculus II 4 cr
- **MATH 275** Calculus III 4 cr
- **PHYS 211,212** Engineering Physics 8 cr
- **PHYS 213,214** Engineering Physics Laboratory 2 cr

### Physics Minor

- **MATH 170** Calculus I 4 cr
- **MATH 175** Calculus II 4 cr
- **MATH 275** Calculus III 4 cr
- **MATH 360** Differential Equations 3 cr
- **PHYS 211,212** Engineering Physics 8 cr
- **PHYS 301** Modern Physics 3 cr
- **PHYS 403** Advanced Modern Physics 3 cr

### IN ADDITION:** Physics electives approved by the department 4 cr
Associate of Science in Physics

Students seeking an Associate of Science degree in Physics must complete the following:

General Education Goals for the Bachelor of Science

* 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.

** Fall 1st Year **

PHYS 217 RCT Internship I (Optional) 3 cr

** Fall 2nd Year **

PHYS 112 General Physics II 3 cr

** Spring 2nd Year **

PHYS 113 General Physics I Laboratory 1 credit. Demonstrating principles of physics. COREQ: PHYS 112. F, S

** Summer following 1st Year **

PHYS 114 General Physics II Laboratory 1 credit. Demonstrating principles of physics. PRE-REQ: PHYS 113. COREQ: PHYS 112. F, S

** PHYS 152 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. With PHYS 153, satisfies Goal 5 of the General Education Requirements. F, S, Su

** PHYS 153 Descriptive Astronomy Laboratory 1 credit. **

Use of astronomical equipment, telescopes, cameras, etc. With PHYS 152, satisfies Goal 5 of the General Education Requirements. F, S, Su

** PHYS 211 Engineering Physics 4 credits. **

Mechanics of particles and rigid bodies; kinetic theory and thermodynamics; electricity and magnetism; wave motion; optics. COREQ: MATH 175. F, S

** PHYS 212 Engineering Physics 4 credits. **

Mechanics of particles and rigid bodies; kinetic theory and thermodynamics; electricity and magnetism; wave motion; optics. PREREQ: PHYS 211. F, S

** PHYS 213 Engineering Physics I Laboratory 1 credit. **

Principles and methods of physical measurement. COREQ: PHYS 213. F, S

** PHYS 215 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 175. D

** PHYS 275 Physics of Aviation 3 credits. **

Introduction to the physics of flight covering aerodynamics including the airplane, flight controls, systems and instrumentation. Includes aviation meteorology and navigation. Satisfies the FAA ground school requirements for the Private Pilot certificate. D

** PHYS 300 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. COREQ: PHYS 321. S

** PHYS 301 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 212; COREQ: MATH 360. F

** PHYS 312 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 112, CHEM 112L, MATH 160 or MATH 170. D

PHYS 313 Intermediate Laboratory 1 2 credits. Modern and historical experiments in atomic physics, nuclear physics, and optics. COREQ: PHYS 301 and MATH 360. F


PHYS 325 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 112, CHEM 112L, PHYS 112 or permission of instructor. F, W

PHYS 400 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 g403 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 360 or equivalent, and PHYS 301. S

PHYS g404 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 g403. F

PHYS g405 Advanced Physics Laboratory I 2 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 g406 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 g409 Introductory Nuclear Physics 3 credits. A course in Nuclear Physics with emphasis upon structural models, radioactivity, nuclear reactions, fission and fusion. PREREQ: Knowledge of elementary quantum mechanics and differential equations or permission of instructor. AF

PHYS g410 Science in American Society 2 credits. Observational basis of science; technology's historical influences on scientific developments; perceptions of science in contemporary America; tools/statistics for teaching science. Cross-listed as GEOL g410. PREREQ: Junior standing and permission of instructor. AF

PHYS g415 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 212 and MATH 360. AF

PHYS g416 Radiation Detection and Measurement 3 credits. Lecture/laboratory course emphasizing practical measurement techniques in nuclear physics. PREREQ: CHEM 112, CHEM 112L, and PHYS 111 or PHYS 113 or PHYS 211 and PHYS 213. S

PHYS g421 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 212 and MATH 360. F

PHYS g422 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 g421. S

PHYS g430 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 g422 or permission of instructor. D

PHYS g442 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 301 and MATH 360 or permission of instructor. AF

PHYS g452 Intermediate Optics 3 credits. Wave theory, c/m waves, production of light, measurement of light, reflection, refraction, interference, diffraction, polarization, optical systems, matrix methods, Jones vectors, Fourier optics, propagation of c/m waves in materials, atmospheric optics. PREREQ: PHYS 212; COREQ: MATH 360. AS

PHYS g453 Topics in Astrophysics 2 credits. Applications of upper division physics to astrophony or cosmology. May include lab exercises. PREREQ: Permission of instructor. AS

PHYS g461 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 212 and MATH 360. F

PHYS g462 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 g461. S

PHYS 481 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 g483 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 212 AND MATH 360. F

PHYS g492 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 g497 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

Courses

PHYS 217 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

PHYS 218 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

PHYS 219 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

PHYS 225 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: PHYS 218. F

PHYS 226 Radiation Protection I 3 credits. Principles of radiation protection; evaluating internal and external exposures and controls, survey, sampling and inspections, technical and emergency preparedness. PREREQ: PHYS 218. S

PHYS 227 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: PHYS 218. S

PHYS 228 Health Physics Regulations 3 credits. Reviewing 10 CFR 19, 20, 30, 35, 835 and portions of 49 CFR dealing with shipment of Radioactive Materials and acquainting students with NCRP, NUREG, REG Guides, ICRP, etc. PREREQ: PHYS 218. S

PHYS g411 Accelerator Health Physics 3 credits. Fundamentals of particle accelerator
PHYS g432 Radiation Physics II 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. S

PHYS g431 Radiation Physics I 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. S

PHYS g430 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. S

PHYS g431 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

PHYS g432 Radiation Physics II 3 credits. Continuation of PHYS g431 considering dosimetric quantities/units, theory and technology of radiation detection and measurement, and radiobiology important to an advanced understanding of radiation protection. PREREQ: PHYS g431 and permission of instructor. S

PHYS g433 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: PHYS g432 or permission of instructor. F

PHYS g434 Internal Dosimetry 3 credits. A lecture course emphasizing internal radiation protection including studies of ICRP-2, ICRP26&30, ICRP-60&66, and MIRD methods of internal dosimetry. PREREQ: PHYS g433 or permission of instructor. S

PHYS g435 Topics in Health Physics I 2 credits. A continuation of PHYS g435. A lecture/seminar course covering special topics in Health Physics such as state and federal regulations, waste disposal methodology, and emergency procedures. PREREQ: PHYS g432 or permission of instructor. F

PHYS g436 Topics in Health Physics II 2 credits. A continuation of PHYS g436. A lecture/seminar course covering special topics in Health Physics such as state and federal regulations, waste disposal methodology, and emergency procedures. PREREQ: PHYS g432 or permission of instructor. S

PHYS g437 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. S

PHYS g438 Nonionizing Radiation Protection 3 credits. Occupational safety and health issues of human exposure to nonionizing radiation. Topics include health concerns and safety strategies developed for extremely low frequency, microwave, radio-frequency, ultraviolet, infrared, laser radiation, and soundwaves. PREREQ: Permission of instructor. S

PHYS g439 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, co-ordination, “exercises”, exposure pathways, modeling, measurement, control, decontamination, and recovery. PREREQ: Permission of instructor. S

PHYS g440 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. S

PHYS g442 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. S

PHYS g443 Radiation Physics II 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. S

PHYS g444 Internal Dosimetry 3 credits. A lecture course emphasizing internal radiation protection including studies of ICRP-2, ICRP26&30, ICRP-60&66, and MIRD methods of internal dosimetry. PREREQ: PHYS g433 or permission of instructor. S

PHYS g445 Topics in Health Physics 3 credits. A course covering aspects of radiation physics important to an advanced understanding of radiation protection. PREREQ: PHYS g431 and permission of instructor. S

PHYS g446 Topics in Health Physics II 2 credits. A continuation of PHYS g445. A lecture/seminar course covering special topics in Health Physics such as state and federal regulations, waste disposal methodology, and emergency procedures. PREREQ: PHYS g432 or permission of instructor. S

PHYS g447 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. S

PHYS g448 Nonionizing Radiation Protection 3 credits. Occupational safety and health issues of human exposure to nonionizing radiation. Topics include health concerns and safety strategies developed for extremely low frequency, microwave, radio-frequency, ultraviolet, infrared, laser radiation, and soundwaves. PREREQ: Permission of instructor. S

PHYS g449 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, co-ordination, “exercises”, exposure pathways, modeling, measurement, control, decontamination, and recovery. PREREQ: Permission of instructor. S

PHYS g450 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. S

PHYS g451 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
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 Goals 1 (English Composition), 2 (Principles of Speech), and 3 (Mathematics).
3. Completion of both POLS 101 Introduction to American Government and POLS 202 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 the general requirements for the B.A. and B.S. degrees, political science majors are required to take the following courses from the “core curriculum”:

```
POLS 101 Introduction to American Government 3 cr
POLS 202 Introduction to Politics 3 cr
POLS 221 Introduction to International Relations 3 cr
POLS 313 Introduction to Political Philosophy 3 cr
POLS 331 Comparative Politics: Framework for Analysis 3 cr
POLS g401 Political Parties and Interest Groups OR
POLS g427 Voting and Public Opinion 3 cr
POLS g403 The Presidency 3 cr
OR
POLS g404 Legislative Process 3 cr
POLS g442 Constitutional Law 3 cr
OR
POLS g443 Constitutional Law 3 cr
POLS 460 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 459).

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 101, 202, six credits of core curriculum courses (excluding POLS 460) and six elective political science credits (excluding POLS 459).

Associate of Science in Political Science

Students seeking an Associate of Science degree in Political Science must complete the following:

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General Education Goals for Bachelor of Science variable

POLS 101 Introduction to American Government 3 cr
POLS 202 Introduction to Politics 3 cr
POLS 221 Introduction to International Relations 3 cr
POLS 248 Politics and the Administration of Justice 3 cr
OR
POLS 249 Introduction to Criminal Law 3 cr
Three additional courses in Political Science 9 cr
Electives to bring total to 64 cr variable
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*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.*

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:**

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POLS 101 Introduction to American Government: Introductory Courses
POLS 202 Introduction to Politics: Introductory Courses
POLS 221 Introduction to International Relations: International Politics
POLS 248 Politics and the Administration of Justice: Public Law
POLS 249 Introduction to Criminal Law: Public Law
POLS 250 Idaho Politics: American Politics
POLS 308 State and Local Government: American Politics
POLS 313 Introduction to Political Philosophy: Political Theory
POLS 326 Recent American Foreign Policy: International Politics
POLS 331 Comparative Politics: Framework for Analysis: Comparative Government
POLS 350 Special Topics in Political Science: General Courses
POLS 397 Workshop: General Courses
POLS g401 Political Parties and Interest Groups: American Politics
POLS g403 The Presidency: American Politics
POLS g404 The Legislative Process: American Politics
POLS g405 The Administrative Process: American Politics
POLS g406 Intergovernmental Relations: American Politics
POLS g408 Metropolitan and Urban Studies: American Politics
POLS g409 Community and Regional Planning: American Politics
POLS g411 American Political Theory: Political Theory
POLS g412 Modern Political Analysis: Political Analysis
POLS g418 Topics in Political Theory: Political Theory
POLS g419 Political Research Methods: Political Analysis
POLS g419L Political Research Methods Laboratory: Political Analysis
POLS g420 Contemporary Political Theory: Political Theory
POLS g421 Democratic Political Thoughts: Political Theory
POLS g425 Topics in International Politics: International Politics
POLS g427 Voting and Public Opinion: American Politics
POLS g432 Comparative Politics - Change and Political Order: Comparative Government
POLS g433 Politics of Developing Nations: Comparative Government
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American Indian Studies
POLS g477 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. Cross-listed as ANTH g478. D
POLS g479 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. Cross-listed as ANTH g479. D

POLS g434 Terrorism and Political Violence: International Politics

POLS g435 Topics in National and Regional Studies: Comparative Government

POLS g441 Administrative Law: Public Administration

POLS g442 Constitutional Law: Public Law

POLS g443 Constitutional Law: Public Law

POLS g445 Jurisprudence: Public Law

POLS g450 Special Topics in Law: Public Law

POLS g451 Organizational Theory and Bureaucratic Structure: Public Administration

POLS g452 Financial Administration and Budgeting: Public Administration

POLS g453 Public Policy Analysis: American Politics

POLS g454 Public Personnel Administration: Public Administration

POLS g455 Environmental Politics and Policy: American Politics

POLS g456 Labor Organization: Public Administration

POLS g457 Grantwriting: Public Administration

POLS g458 Public Administration Ethics: Public Administration

POLS g459 Government Internship: General Courses

POLS g460 Senior Seminar: General Courses

POLS g465 U.S. Political History: American Politics

POLS g466 Public Lands Policy: American Politics

POLS g467 State and Local Administration: Public Administration

POLS g471 Historical Geography of Idaho: General Courses

POLS g478 Federal Indian Law: American Indian Studies

POLS g479 Tribal Governments: American Indian Studies

POLS g491 Seminar: General Courses

POLS g492 Seminar: General Courses

American Politics
POLS 250 Idaho Politics 3 credits. Historical development and political analysis of Idaho politics from the first settlers to the present. D

POLS 308 State and Local Government 3 credits. Study of the institutions of state and local government in a behavioral context. D

POLS 401 Political Parties and Interest Groups 3 credits. The nature and development of political parties and pressure groups as exemplified in the United States. S

POLS 403 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

POLS 404 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

POLS 405 The Administrative Process 3 credits. Analysis of the principles of public administration with an introduction to theories of organization and administration. D

POLS 406 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 408 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 409 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. D

POLS 427 Voting and Public Opinion 3 credits. Analysis of the ways citizens and government communicate with each other. Elections, public opinion, and media influence are studied. AF

POLS 432 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 445 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 465 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. Cross-listed as HIST g465. R2

POLS 466 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 412 Modern Political Analysis 3 credits. Methods of political inquiry and theories and doctrines of politics, with emphasis on modern developments. D

POLS 419 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. D

POLS 419L Political Research Methods Laboratory 1 credit. Application of and practice in research methods. D

Public Administration
POLS g411 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 g451 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. PREREQ: POLS 405 recommended. D

POLS g452 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 emphasis 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 g454 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
Research, Sciences
Arts and College of
violence, and problems of counter-terrorism. D
3 credits.
POLS g431 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
POLS g432 Comparative Politics: Change and Political Order 3 credits. An examination of political change, political order, political culture and the role of revolution and violence. Change and order in the context of globalization is emphasized. D
POLS g433 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 g435 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
POLS g442 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 g443 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 g445 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 g450 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
POLS g451 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 g452 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

Comparative Government
POLS 331 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
POLS 432 Comparative Politics: Change and Political Order 3 credits. An examination of political change, political order, political culture and the role of revolution and violence. Change and order in the context of globalization is emphasized. D
POLS 433 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 435 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 248 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 249 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 442 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 443 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 445 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 450 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

International Politics
POLS 321 Introduction to International Relations 3 credits. Conceptual introduction to international relations, with emphasis on sovereignty, national interest, power, and balance of power. F
POLS 326 Recent American Foreign Policy 3 credits. Study of recent American foreign policy, focused on the interrelationship of domestic and foreign policies and the problems of formulating foreign policy in a democratic state. D
POLS 425 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 434 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

Department of Psychology
Chair and Professor: Turley-Ames
Emeriti: Enloe, Joe, Matthews, McGee
Professors: Cellucci, Hatzbenuehler, Roberts, Vik
Associate Professor: Lawyer, Lynch, Rasmussen, Wong
Assistant Professors: Brumley, Letzring, McCulloch, Praise
Adjunct Faculty: Atkins, Landers, Larsen, Heyneman, Pongratz, Simonson, Sommer, Stephens, Traughber, Welsh

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 general education goals, psychology students learn critical thinking and problem-solving skills by developing competence in the methods of scientific research, psychometric principles, and data analysis. They integrate and apply the theories and knowledge base from the various domains of psychology and develop a well-rounded view of psychology and its importance in understanding behavior. Psychology promotes an appreciation for individual and cultural differences, as well as ethical principles in decision-making. The study of psychology increases understanding of self and others and enables individuals to make informed judgments that strengthen community and public policy.

The major assists students in developing their skills in library research, scientific writing, public presentations, and computer applications. Psychology students are encouraged to participate in research projects and community practicums. They also become aware of the various career options related to the major. By providing a broad-based education and the aforementioned skills, the major prepares students for entry-level positions in business, government, and a wide range of human service positions. The major also prepares students for graduate education and careers in psychology as well as areas such as law and public service, medicine and health-related professions, business programs emphasizing organizational development and human resources, and seminary.

Admission
The requirements for admission to the Psychology major are as follows:
- Successful completion of Goals 1, 2, and 3 (C- or better for Goal 1 and D- or better for Goals 2 and 3)
- Successful completion of PSYC 101 and PSYC 201 (D- or better)
- GPA of 2.0 or better.

Bachelor of Arts or Bachelor of Science in Psychology

Majors in the psychology program have as their core the following courses:

- PSYC 101 Introduction to General Psychology 3 cr
- PSYC 201 Careers in Psychology 1 cr
- PSYC 227 Basic Statistics 3 cr
- PSYC 228 Introduction to the Theory of Measurements and Test Construction 3 cr
- PSYC 303 Experimental Psychology 4 cr
- PSYC 431 Physiological Psychology I 3 cr
- PSYC 472 History of Psychology 3 cr
- PSYC 491 Senior Seminar 3 cr

One of the following courses:
- PSYC g435 Animal Behavior OR
- PSYC g445 Psychology of Learning 3 cr

One of the following courses:
- PSYC 341 Social Psychology 3 cr
- PSYC g401 Theories of Personality 3 cr

One of the following courses:
- PSYC g404 Sensation and Perception 4 cr
- PSYC g432 Physiological Psychology II 3 cr
- PSYC 446 Cognitive Processes 3 cr

Elective Courses
In addition, the student must take 12 additional credits in psychology; 9 of these must be at the upper-division level. Students who are preparing for graduate study are strongly encouraged to take two of the following as part of their required electives:
- PSYC g404 Sensation and Perception 4 cr
- PSYC g432 Physiological Psychology II 3 cr
- PSYC 446 Cognitive Processes 3 cr

Minor in Psychology
- PSYC 101 Introduction to General Psychology 3 cr
- PSYC 227 Basic Statistics 3 cr
- PSYC 228 Introduction to the Theory of Measurements and Test Construction 3 cr
- PSYC 303 Experimental Psychology 4 cr
- PSYC 310 Applied Techniques 4 cr

TOTAL: 13 cr

In addition, the student must take 9 additional elective credits in psychology.

Psychology Courses
- PSYC 101 Introduction to General Psychology 3 credits. Satisfies Goal 12 of the General Education Requirements. PSYC 101 or PERMISSION OF THE INSTRUCTOR is a prerequisite of all upper-division courses in psychology.
- PSYC 101 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. Satisfies Goal 12 of the General Education Requirements. F, S
- PSYC 200 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 201 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 205 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 211 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 101. D
- PSYC 225 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 227 Basic Statistics 3 credits. Consideration of statistical techniques and methods used in psychological investigations in terms of derivation, application, and limitation. PREREQ: MATH 253 or permission of instructor. F, S
- PSYC 228 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 227, F, S
- PSYC 250 Female and Male Roles 3 credits. Examines the biological and social factors involved in the present-day conceptions of male and female and the relations between the sexes. D
PSYC 301 Abnormal Psychology I 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 101. F, S

PSYC 302 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 301. D

PSYC 303 Experimental Psychology 4 credits.
Introduction to the methods of psychological research. Students will be required to perform experiments. PREREQ: PSYC 227. PREREQ OR COREQ: PSYC 228. F, S

PSYC 305 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 phenomenology, psychotropic drug effects, hypnosis, meditation, biofeedback, and intuition. D

PSYC 310 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 101. S

PSYC 332 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 225. D

PSYC 341 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 101. F

PSYC 344 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 225. AF

PSYC 369 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 g401 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 101. S

PSYC g404 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 g431 or PSYC 446. AF

PSYC g408 Science, Pseudoscience, and Psychology 3 credits.
Critical evaluation of fringe-science, paranormal, and other unproven claims. Introduction to the psychological processes underlying pseudo-scientific thinking and beliefs. D

PSYC g412 Ethical and Professional Issues in Psychology 2 credits.
Topics include informed consent, confidentiality, deception, duty to protect, competency, malpractice, dual and collegial relationships, and impaired professionals in research and practice. PREREQ: 24 credits in psychology or permission of instructor. F

PSYC g417 Interdisciplinary Evaluation Team 1 credit.
Introduction to principles, techniques of interdisciplinary evaluation. Disciplines emphasized: Audiology, Nursing, Physical Therapy, Psychology, Social Work, Special Education, Speech-Language Pathology. Cross-listed as NURS g417, SOWK g417, and CSED g417. S

PSYC g423 Community Practicum 1-2 credits.
Students work regional agencies by observing or participating in professional activities under appropriate supervision. Four hours per week per credit. May be repeated for up to 6 credits. PREREQ: Permission of instructor. F, S, Su

PSYC 425 Psychology Clinic Practicum 1-2 credits.
Undergraduates observe and assist graduate students and faculty in the delivery of psychological services. Four hours per week per credit. May be repeated for up to 6 credits. PREREQ: Permission of instructor. F, S, Su

PSYC g431 Physiological Psychology I 3 credits.
Introduction to neuropsychology with an emphasis on methods, basic neuroanatomy, and neurophysiology. PREREQ: Six hours of Psychology beyond PSYC 101 or permission of instructor. F

PSYC g432 Physiological Psychology II 3 credits.
Survey of the physiological bases of psychological processes, including learning, emotion, motivation, sensation, and perception. Emphasizes current research and theory concerning brain mechanisms and behavior. PREREQ: PSYC 431 or permission of instructor. AS

PSYC g435 Animal Behavior 3 credits.
Study of experiments in animal learning which relate to our understanding of human learning. Course is concerned with both observation and experimental studies of habit formation, conditioning, related endocrinology, and nerve structure as they are associated with behavior capabilities. PREREQ: Six hours in Psychology beyond PSYC 101 or permission of instructor. AS

PSYC 443 Advanced Social Psychology 3 credits.
In-depth study of current theory, issues and research in the field of social psychology. Emphasis is on newly emerging research areas such as nonverbal communication; human uses of space; development of moral and ethical values; helping behavior, and compliance and obedience research. PREREQ: PSYC 341 or permission of instructor. D

PSYC g445 Psychology of Learning 3 credits.
Survey of the major principles of learning. Including the processes underlying classical and instrumental conditioning and motor behavior. PREREQ: PSYC 101 and permission of instructor. F

PSYC g446 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. COREQ: PSYC 303. S

PSYC 451 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 101. D

PSYC 453 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 225. S

PSYC g463 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 g464 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 g465 Behavioral Medicine 3 credits.
Psychological issues of health, disease states, and prevention. Critical evaluation of clinical research and practice, including nontraditional healing techniques and beyond models used to understand health and disease. PREREQ: PSYC 101 or permission of instructor. D

PSYC g467 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 472 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 101 PSYC 101 or permission of instructor. F, S

PSYC g483 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 6 credits. PREREQ: 24 hours in Psychology. D

PSYC 491 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 303. Graded S/U. F, S
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.

The objectives 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 professional foundation.
5. Preparation of students to work with diverse, vulnerable, oppressed and disadvantaged populations.

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
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.

Required Courses for Graduation
The following courses representing the core of the discipline are required. Sociology majors must attain a grade of “C” or better in all required and elective courses.

SOC 101 Introduction to Sociology 3 cr
SOC 206 Sociological Methods 3 cr
SOC 207 Social Statistics 3 cr
SOC 301 Classical Social Theory 3 cr
SOC g403 Contemporary Sociological Theory 3 cr
SOC g462 Social Stratification 3 cr
TOTAL: 18 cr

Elective Courses
In addition to the required courses, students are expected to complete 18 credit hours from any of the remaining courses in the Sociology curriculum excluding SOC g482. Fifteen of the elective credit hours must be upper division.

Bachelor of Arts in Social Work
The Social Work Program is accredited by the Council on Social Work Education at the Baccalaureate level. As such it provides students with a generalist framework for beginning professional social work practice. Social workers help individuals, families, groups, and communities meet basic human needs and enhance the quality of life.

General Education Requirements
Students pursuing the Bachelor of Arts in Social Work must complete Goals 1-9, Goals 10A and 10B and Goals 11-12. Certain goals may be met using Social Work Program requirements; for example:

Goal 3: MATH 108 (Intermediate Algebra) and MATH 253 (Introduction to Statistics);
Goal 4: BIOL 100 (Concepts Biology: Human Concerns);
Goal 11: ECON 100 (Economic Issues);
Goal 12: PSYC 101 (Introduction to General Psychology).

Departmental Requirements

Social Work Requirements
SOWK 271 Introduction to Social Work 3 cr
SOWK 272 Introduction to Social Work and the Social Environment 3 cr
SOWK 308 Social Work Research 3 cr
SOWK 371 Social Welfare Policy 3 cr
SOWK 372 Practice with Individuals and Families 3 cr
SOWK 373 Group Work 3 cr
SOWK 476 Social Work Field Practicum 1 6 cr
Admission to the Social Work Program

Application for admission to the Social Work Program is required of all students desiring to progress toward a social work major. Admission to the Social Work Program is competitive. Students may apply to the major at the completion of the sophomore year and after completing SOWK 271 and SOWK 272. Students will be evaluated using grades in pre-professional courses and overall grade point average. A minimum grade point average of 2.5 is required.

The following criteria must be met for an applicant to be eligible for consideration for admission to the social work major:

1. Completion of a minimum of 61 credit hours with a minimum GPA of 2.5 for the semester at the time of application.
2. Completion of the following goals and departmental requirements: Goals 1, 3, 4, 11 and 12, SOC 248, SOWK 271 and SOWK 272 with a minimum grade of “C” in each course.
3. Maintenance of the 2.5 minimum GPA from the time of application until the semester of admission to the major.
4. Completion of the Application for admission to Social Work Major along with a $30 application fee, submitted to the Social Work Admissions Committee with a 3-5 page (typed and double-spaced) statement explaining why you would like to become a social worker and why you might be a good fit for the Social Work Program at Idaho State University (you may want to consider your life experiences, educational background, specific personal skills, commitment to the social work profession, job history, and any other relevant information), and an unofficial copy of your transcript.

5. Students must have a background check performed by the Public Safety Office at Idaho State University (call (208) 282-2515). The cost to the student is approximately $50. The criminal history check must be “in progress” or completed before application is submitted. A background check conducted by the Department of Health & Welfare within six months of application to the Social work program is acceptable. Senior practicum agencies may require an additional background check. For further information, please refer to the Faculty/Staff Handbook at http://www.isu.edu/fs-handbook/part6/6_4/6_4o.html.

6. 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 experience.

All social work majors are required to meet the above standards prior to they may enroll in upper division social work courses (those numbered 300 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 400 Level Courses

Admission to the senior field courses (SOWK 476-477) is contingent upon completion of the following:

- Completion of SOWK 308, SOWK 371, SOWK 372, SOWK 373, and SOC 207 with a minimum GPA of 2.5.
- Maintenance of GPA to senior year at the 2.5 level.
- Submission of form applying for senior field experience.
- Interview by program senior field placement committee prior to notification of field agencies.

Associate of Arts in Criminal Justice

This two-year degree program provides two career goal options. Option A, Law Enforcement, is for those who are, or are seeking to be, law enforcement officers. Option B, Female Corrections, is for those interested in a career working in correctional institutions and agencies which serve female offenders. Graduates from either option of this program will have fulfilled the majority of the General Education Requirements applicable to a four-year degree.

Option A, Law Enforcement, recognizes that many law enforcement agencies encourage or require personnel to obtain a higher education in order to better meet increased demands to perform more effectively in the face of complex legal, social, political and economic situations. For admission into Option A, a person must have been admitted as a student in the College of Arts and Sciences at Idaho State University and must immediately contact one of the Criminal Justice Program Advisors to declare a major.

Option B, Female Corrections, provides an academic background specifically directed at issues associated with correctional approaches toward female offenders. This program is based on the premise that correctional workers should truly be able to provide corrective assistance in mathematics, English, and the various sciences in addition to fulfilling the more traditional custodial tasks. Admission into Option B requires three letters of reference, a minimum of 3.0 GPA, and a formal interview with the Criminal Justice Advisors prior to the declaration of a major.

Required Courses

I. General Education Requirements (45 credits minimum), as listed in the catalog excepting as specified for Goals 10A, 10B, 11, and 12 provided below.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ANTH 238</td>
<td>Peoples and Cultures of the New World</td>
<td>3 cr</td>
</tr>
<tr>
<td>SPAN 101</td>
<td>Spanish</td>
<td>8 cr</td>
</tr>
<tr>
<td>to American Government</td>
<td>3 cr</td>
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</table>

Goal 11

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS 101</td>
<td>Introduction to American Government</td>
<td>3 cr</td>
</tr>
</tbody>
</table>
II. Social Science Requirements

(24 credits)

Option A — Law Enforcement

POL 249* Introduction to Criminal Law 3 cr
PSYC 200* Child Abuse 3 cr
SOC 102 Social Problems 3 cr
SOC 231 Juvenile Delinquency 3 cr
SOC 248 Social Diversity 3 cr
SOC 295 Criminal Justice Internship 1-4 cr

* Or approved substitutes

Both Options:

Two additional electives to be taken with consent of advisor.

** The Criminal Justice Internship provides an option for those who seek careers outside of law enforcement or women’s correctional facilities. Credits for this course can also be obtained as described below.

General Information

Please note the following guidelines:

1. Students enrolled in Option A who have certificates in law enforcement from the Idaho State University College of Technology may transfer 12 credits of general electives into the Associate of Arts Criminal Justice degree.

2. Students enrolled in Option A who have completed the Idaho Peace Officer Standards and Training (POST) Academy may obtain six credits of general electives which may be applied toward the AA degree.

3. Students enrolled in Option B who have completed the Correctional Officer Standards and Training (COST) Academy may obtain six credits of general electives which may be applied toward the AA degree.

4. Students who do not meet criterion 1, 2, or 3 above must arrange individual field internships or have other internship experience approved by the Criminal Justice Advisors.

Sociology Courses

SOC 101 Introduction to Sociology 3 credits. Introduction to the scientific point of view in the study of group life, social institutions, and processes. Satisfies Goal 12 of the General Education Requirements. F, S

SOC 102 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. Satisfies Goal 12 of the General Education Requirements. F, S

SOC 206 Sociological Methods 3 credits. Introduces the principles and procedures of scientific research and includes a variety of strategies and tools for studying social phenomena. F

SOC 207 Social Statistics 3 credits. A survey of statistical techniques focusing on descriptive statistics, hypothesis testing and correlations. Students work in computer labs and use SPSS-PC to produce descriptive and summary statistics for large data sets. PREREQ: MATH 253. S

SOC 231 Juvenile Delinquency 3 credits. Theories of delinquency, criminal behavior, and law enforcement in relation to the modern social institutions in American culture. PREREQ: SOC 101 or SOC 102. F, S

SOC 248 Social Diversity 3 credits. Examine selected theories and research concerning how race, class, gender and ethnicity intersect and affect the lives and cultures of the peoples in the United States historically and in contemporary society. S

SOC 250 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 102. S

SOC 295 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 301 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 101. S

SOC 321 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 321. PREREQ: SOC 101 or permission of instructor. F

SOC 330 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 335 Population and Environment 3 credits. The scientific study of population and its environmental consequences. AF

SOC 366 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 101. F

SOC 368 The Sociology of Religion 3 credits. Contemporary issues as they relate to religion.


SOC 403 Contemporary Sociological Theory 3 credits. Survey and appraisal of sociological theories since 1945: structural functionalism, rational choice, conflict, symbolic interactionism, and phenomenology. PREREQ: SOC 301. S

SOC 408 Advanced Sociological Methods 3 credits. Emphasizes advanced techniques in research design, data measurement, and multivariate analysis utilizing computer applications. PREREQ: SOC 206 and SOC 207. AS

SOC 413 Mind, Body and Society 3 credits. Symbolic interaction and its relation to selfishness, sympathy, illness, sexuality, and addiction; and to groupings like enemies, communities, and associations. PREREQ: SOC 101. F

SOC 431 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 101 or SOC 102. S

SOC 462 Social Stratification 3 credits. Theories and methodology of status systems; the relation of class to the social structure; analysis of class in different societies, with emphasis upon the class system and power. PREREQ: SOC 101 or permission of instructor. S

SOC 467 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 482 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 483 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 491 Topics in Sociology 3 credits. Readings, discussion, and preparation of reports on selected topics. May be repeated for up to 9 credits with different content. D

Social Work Courses

SOWK 271 Introduction to Social Work 3 credits. Introduction to social welfare institutions, social work profession, practice approaches, occupational contexts, and historical development of social welfare. Designed for students considering a career in social work or related fields. F, S

SOWK 272 Human Behavior and the Social Environment 3 credits. Survey of human de-
Department of Theatre and Dance

Chair and Professor: Earles
Professors: Dienstfrey, Schroder
Associate Professors: Gross, Harwood, Johnson
Assistant Professor: Garibaldi
Visiting Faculty: Jorgensen, Vissers
Assistant Lecturer: Romine
Lecturers: Underwood, Zimmerly
Visiting Faculty: Johnson

The Department of Theatre and Dance administers a Minor in Dance, a Bachelor of Arts or Bachelor of Science degree in Theatre, and a variety of minors in Theatre.

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. There are two Minor Emphases in Dance—one in Performance and Choreography and one in Dance Education. Students pursuing a Minor in Dance with either Emphasis should be enrolled in a dance technique class every semester. See also the list of courses recommended for students minoring in Dance.

Performance and Choreography Emphasis

Required Courses
DANC 104 World Dance/Local Identity 3 cr
DANC 110 Elements of Movement 2 cr
DANC 205 Dance in the Modern Era 3 cr
DANC 210 Dance Composition I 3 cr

Choose ONE of the following courses (3 cr):
DANC 401 Aesthetic Issues in Dance 3 cr
DANC 410 Dance Composition II 3 cr
DANC 410 Dance Composition I 3 cr
P E 243 Anatomical Foundations of Human Activity 3 cr

TOTAL: 26 cr

Dance Education Emphasis

Required Courses
DANC 104 World Dance/Local Identity 3 cr
DANC 110 Elements of Movement 2 cr
DANC 205 Dance in the Modern Era 3 cr
DANC 210 Dance Composition I 3 cr
DANC 260 Methods of Dance for Children 3 cr
DANC 460 Dance Teaching Methods and Curriculum Design 3 cr
DANC 130, 230, or 330 Modern Dance I, II, or III 2 cr

Choose ONE of the following courses (3 cr):
DANC 105 Survey of Dance 3 cr
DANC 301 Performance and Society 3 cr
DANC 401 Aesthetic Issues in Dance 3 cr
MUSC 100 Introduction to Music 3 cr
P E 243 Anatomical Foundations of Human Activity 3 cr

TOTAL: 26 cr

Recommended Courses for the Dance Minor Program include:
B IOL 301, 301L Anatomy and Physiology, and Lab 4 cr
B IOL 302, 302L Anatomy and Physiology, and Lab 4 cr
D AAC 110 Ballroom Dance I 1 cr
D AAC 111 Ballroom Dance II 1 cr
D AAC 150 Folk/Square Dance I 1 cr
D AAC 151 Folk/Square Dance II 1 cr
D AAC 160 Recreational Dance I 1 cr
D AAC 161 Recreational Dance II 1 cr
D AAC 195 Swing Dance 1 cr
D AAC 140 Tap/Clog Dance I 1 cr
D AAC 141 Tap/Clog Dance II 1 cr
D AAC 175 Pilates - Dance Conditioning I 1 cr
D AAC 160 Pilates - Dance Conditioning II 1 cr
D AAC 150 Folk/Square Dance I 1 cr
D AAC 151 Folk/Square Dance II 1 cr
D AAC 175 Pilates - Dance Conditioning I 1 cr
D AAC 176 Pilates - Dance Conditioning II 1 cr
D AAC 180 Hip Hop I 1 cr
D AAC 181 Hip Hop II 1 cr
D AAC 100 Ballet I 1 cr
D AAC 105 Survey of Dance 3 cr
D AAC 120 Jazz Dance I 2 cr
D AAC 130 Modern Dance I 2 cr
D AAC 200 Ballet II 2 cr
D AAC 220 Jazz Dance II 2 cr
D AAC 230 Modern Dance II 2 cr
D AAC 270 Dance Performance 1-2 cr
D AAC 280 Dance Production 1-2 cr
D AAC 290 Contact Improvisation 2 cr
D AAC 300 Ballet III 2 cr
D AAC 320 Jazz Dance II 3 cr
D AAC 330 Modern Dance III 2 cr
D AAC 390 Workshop: Cultural Forms 1-2 cr
D AAC 401 Aesthetic Issues in Dance 3 cr
D AAC 410 Dance Composition II 3 cr
D AAC 460 Dance Teaching Methods and Curriculum Design 3 cr
MUSC 100 Introduction to Music 3 cr
MUSC 108 The World of Music 4 cr

Approved electives
Student takes four (4) credits of approved courses from the recommended courses listed below.

TOTAL: 26 cr
Dance Courses (DANC Prefix)

DANC 100 Ballet I 2 credits. Beginning, center floor, and movement combinations. Phrase material learned in class is performed for class members and for an end of semester informal presentation. Students are required to attend live performances and view dance video work outside of class. May be repeated for up to 4 credits. F, S

DANC 104 World Dance: Local Identity 3 credits. 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 105 Survey of Dance 3 credits. 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. Satisfies Goal 6 of the General Education Requirements. F, S, Su

DANC 110 Elements of Movement 2 credits. 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 120 Jazz Dance I 2 credits. Techniques taught at beginning level including skills from ballet, modern dance, and tap. Phrase material created in class is performed for an end of semester informal presentation. Students are also required to attend live performances and view dance video work outside of class. May be repeated for up to 4 credits. F, S

DANC 130 Modern Dance II 2 credits. Modern technique taught at beginning level including warmups, strength and flexibility development, and phrase material. Students create material to present for an end of semester informal presentation. Students are also required to attend live performances and view dance video work outside of class. May be repeated for up to 4 credits. F, S

DANC 200 Ballet II 2 credits. Intermediate barre, center floor, and movement combinations. Phrase materials created in class are performed for an end of semester informal presentation. Students are also required to attend live performances and view dance video work outside of class. May be repeated for up to 8 credits. PREREQ: DANC 100 or equivalent. F


DANC 210 Dance Composition I 3 credits. 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 112. S

DANC 220 Jazz Dance II 2 credits. Techniques taught at intermediate level including skills from ballet, modern dance, and tap. Phrase material created in class is performed for end of semester informal presentation. Students are also required to attend live performances and view dance video work outside of class. May be repeated for up to 8 credits. PREREQ: DANC 120 or equivalent. F

DANC 230 Modern Dance II 2 credits. Modern technique taught at intermediate level including warmups, strength and flexibility development, and phrase material. Students create material to present for an end of semester informal presentation. Students also required to attend live performances and view dance video work outside of class. May be repeated for up to 8 credits. PREREQ: DANC 220 or equivalent. F

DANC 330 Modern Dance III 2 credits. Modern technique taught at the advanced level including warmups, strength and flexibility development, and phrase material. Students create material to present for an end of semester informal presentation. Students also required to attend live performances and view dance video work outside of class. May be repeated for up to 8 credits. PREREQ: DANC 230 or equivalent. S

DANC 390 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 401 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. S

DANC 410 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 explore improvisational processes based in the Elements of Movement. Students present their work in a concert at the end of the semester. PREREQ: DANC 210 and THEA 300. F

DANC 460 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. F

DANC 485 Independent Study in Dance 1-3 credits. Individual work under the direction of a dance faculty member. Field and/or library study on specific dance related topics of interest to students who want further studies in dance. May be repeated for up to 6 credits. PREREQ: Permission of instructor. F, S, Su
Dance
Activity Courses
(DAAC Prefix)
DAAC 110 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 111 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. PREREQ: DAAC 110 or equivalent. F, S
DAAC 115 Ballroom Dance Performance 1 credit. Advanced ballroom dance students learn to choreograph and perform a “Couples” dance routine; learn how to select music, costumes, and stage individual performances. PREREQ: Permission of instructor. F, S
DAAC 140 Tap and Clog Dance I 1 credit. Techniques and combinations taught at beginning level. Patterns taught by instructor and created by students are performed for class members and end of semester informal presentation. F
DAAC 141 Tap and Clog Dance II 1 credit. Techniques and combinations taught at intermediate level. Patterns taught by instructor and created by students are performed for class members and end of semester informal presentation. PREREQ: DAAC 140 or equivalent. S
DAAC 150 Folk and Square Dance I 1 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 151 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. PREREQ: DAAC 150 or equivalent. D
DAAC 160 Recreational Dance I 1 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 161 Recreational Dance II 1 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 160 or equivalent. D
DAAC 175 Dance Conditioning I--Pilates-Based 1 credit. To provide an introduction to dance conditioning exercises from the Pilates method. Focus will be placed on strength and flexibility through floor-based skill work. F, S
DAAC 176 Pilates - Dance Conditioning II 1 credit. To provide intermediate dance conditioning exercises from the Pilates method. Focus will be placed on strength and flexibility through floor-based skill work. PREREQ: DAAC 175 or equivalent. D
DAAC 180 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 181 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 195 Swing Dance 1 credit. Swing techniques taught at a beginning skill level along with partnering, appropriate dress, proper etiquette. Informal performance opportunities available. F

Theatre Program
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.

Bachelor of Arts or Bachelor of Science in Theatre
Part I (34 cr)
THEA 111 Stagecraft 3 cr
THEA 131 Voice and Diction 2 cr
THEA 209 Stage Lighting 2 cr
THEA 211 Drafting 3 cr
THEA 214 Makeup 2 cr
THEA 221 Stage Costume Construction 2 cr
THEA 251 Beginning Acting 3 cr
THEA 252 Intermediate Acting 3 cr
THEA 304 Theatre Management 2 cr
THEA 311 Introduction to Scene Design 3 cr
THEA g400 Theatre Background I 3 cr
THEA g401 Theatre Background II 3 cr
THEA g455 Beginning Stage Direction 3 cr

Part II (6 cr or two of the three courses)
THEA g419 Modern European Theatre 3 cr
THEA g420 American Theatre History 3 cr
THEA g470 Contemporary Theatre 3 cr

Part III (choice of 9 cr)
THEA 118 Oral Interpretation 3 cr
THEA 218 Stage Dialects 2 cr
THEA g402 Stage Costume History 3 cr
THEA g403 Stage Costume Design 3 cr
THEA g404 Problems in Acting 3 cr
THEA g405 Advanced Costume Construction 3 cr
THEA g406 Advanced Light Design 3 cr
THEA g412 Scenic Painting 3 cr
THEA g421 Basic Pattern Drafting for Stage Costuming 3 cr
THEA g424 Advanced Acting Styles 3 cr
THEA g426 Advanced Scene Design 3 cr
THEA g456 Advanced Stage Direction 3 cr

Part IV: (6 credits optional)
THEA 191,192,391,392* Theatre Production 1 cr each
THEA 300 Theatre Movement Workshop 1-2 cr
THEA 301 Theatre Voice Workshop 1-2 cr
THEA 302 Beginning Costume Materials Workshop 1-2 cr
THEA 303 Advanced Costume Materials Workshop 1-2 cr
THEA 390 Practicum Theatre Arts I 1-2 cr
THEA 414 Advanced Makeup 2 cr
THEA 457 B.F.A. Studio 3 cr
THEA g490 Practicum Theatre Arts II 1-3 cr
THEA g491 Independent Research Projects 1-2 cr

*These four courses are 1-credit courses that may be repeated once each.

Related Areas
Required Courses:
DANC 110 Elements of Movement 2 cr
ENGL g476 Shakespeare 3 cr
PEAC 139A Beginning Fencing 1 cr
Minors—Theatre

General Minor in Theatre (Unspecified)

THEA 101 Appreciation of Drama 3 cr
IN ADDITION: THEA electives 20 cr
TOTAL: 23 cr

Program must be approved by the department.

Minor in Acting

THEA 118 Oral Interpretation: 3 cr
THEA 131 Voice and Diction 3 cr
THEA 101 Appreciation of Drama 3 cr
THEA 214 Makeup 2 cr
THEA 251 Beginning Acting 3 cr
THEA 252 Intermediate Acting 3 cr
THEA g404 Problems in Acting 3 cr
THEA g424 Advanced Acting Styles 3 cr
THEA 191, 192, 391, 392* Theatre Production 3 cr
TOTAL: 25 cr

*These four courses are 1-credit courses that may be repeated once each.

Minor in Acting and Directing

THEA 131 Voice and Diction 2 cr
THEA 101 Appreciation of Drama 3 cr
THEA 111 Stagecraft 3 cr
THEA 209 Stage Lighting 2 cr
THEA 214 Makeup 2 cr
THEA 251 Beginning Acting 3 cr
THEA 252 Intermediate Acting 3 cr
THEA g404 Problems in Acting 3 cr
THEA g424 Advanced Acting Styles 3 cr
THEA g455 Beginning Stage Direction 3 cr
THEA g456 Advanced Stage Directing 3 cr
TOTAL: 30 cr

Minor in Costume

THEA 101 Appreciation of Drama 3 cr
THEA 209 Stage Lighting 2 cr
THEA 211 Drafting 2 cr
THEA 214 Makeup 2 cr
THEA 221 Stage Costume Construction 2 cr
THEA g402 Stage Costume History 3 cr
THEA g403 Stage Costume Design 3 cr
THEA 221 Stage Costume Construction 2 cr
THEA g403 Stage Costume Design 3 cr
THEA 211 Drafting 2 cr
THEA 191-392 Theatre Production 3 cr
TOTAL: 23 cr

Minor in Technical Theatre

THEA 101 Appreciation of Drama 3 cr
THEA 211 Drafting 2 cr
THEA 111 Stagecraft 3 cr
THEA 209 Stage Lighting 2 cr
THEA 221 Stage Costume Construction 2 cr
THEA 304 Theatre Management 2 cr
THEA 311 Introduction to Scene Design 3 cr
THEA g426 Scene Design 3 cr
THEA 191, 192, 391, 392* Theatre Production 3 cr
TOTAL: 23 cr

THEA 192 Stage 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 191-192, 391-392 may be repeated for up to 8 credits as speech and theatre activity.

THEA 209 Stage Lighting 2 credits. Theory and practice of lighting applied to various types of stage production. Includes operation of switchboard and participation on light crews. PREREQ: THEA 111.

THEA 211 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.

THEA 214 Makeup 2 credits. Laboratory sessions on the technique of makeup. Includes participation on crews of university productions.

THEA 218 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 131.

THEA 221 Stage Costume Construction 2 credits. Methods of assembling stage costumes. Use of various fabrics and materials will be emphasized.

THEA 251 Beginning Acting 3 credits. Exercises in awareness, concentration, relaxation, imagination, and character interrelationships. Includes improvisation and some scene work.

THEA 252 Intermediate Acting 3 credits. Creating a character. Emphasis on movement, gesture, scene analysis, and performance. PREREQ: THEA 251, or permission of instructor.

THEA 300 Theatre Movement Workshop 2 credits. Exploration of techniques of movement improvisation and the text/movement synthesis of physical theatre. PREREQ: DANC 110.

THEA 301 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.

THEA 302 Beginning Costume Materials Workshop 1-2 credits. Beginning costume materials, including millinery, jewelry, and mask making.

THEA 303 Advanced Costume Materials Workshop 1-2 credits. Experimentation with several types of fabric dye and fabric modification, such as stenciling, screen painting, batik methods, Devoe, and piping.

THEA 304 Theatre Management 2 credits. Consideration of administrative aspects of play production with emphasis on stage management, theatre management, publicity, and advertising.
THEA 311 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 211. F

THEA 331 Materials and Methods for High School Speech Arts 3 credits. Required for teaching majors in speech and theatre. D

THEA 388 Independent Research Projects I 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. F, S

THEA 390 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 391 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 191, 192, 391 and 392 may be repeated for up to 8 credits as speech and theatre activity. F

THEA 392 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 191, 192, 391 and 392 may be repeated for up to 8 credits as speech and theatre activity. S

THEA 393 Independent Research Projects I 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. F, S

THEA 400 Theatre Background I 3 credits. Theatre and drama, from their origins through the Jacobean period. AF

THEA 401 Theatre Background II 3 credits. Study of the theatre and drama from the Spanish Golden Age through the “well-made play.” AS

THEA 402 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. THEA 221 or permission of instructor. AF

THEA 403 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 404 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 251, THEA 252. AS

THEA 405 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 221. AS

THEA 406 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 111, THEA 209, and THEA 311. D

THEA 412 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. AS

THEA 414 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 214 or permission of instructor. AS

THEA 419 Modern European Theatre 3 credits. Continental and British theatre and drama from 1850 to mid-twentieth century. R2

THEA 420 American Theatre History 3 credits. American theatre and drama from the beginnings to mid-twentieth century. AS

THEA 421 Basic Pattern Drafting for Stage Costuming 3 credits. Cutting patterns from measurements. Adjusting various patterns to designs. Alterations and fittings. PREREQ: THEA 221 or permission of instructor. AF

THEA 422 Period Pattern Drafting for Stage Costuming 3 credits. Use of the basic patterns to reproduce historical costumes from the 12th century to 1950. PREREQ: THEA 405 or permission of instructor. AS

THEA 424 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 251, THEA 252, or permission of instructor. AF

THEA 426 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 111, THEA 209, and THEA 311. D

THEA 455 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 111, THEA 251, THEA 252, or permission of instructor. F

THEA 456 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 455 or permission of instructor. AS

THEA 457 BFA Studio 3 credits. Intensive process and skills training in a controlled studio environment. Lecture/survey in professional preparation and marketability for the prospective actor. PREREQ: BFA Acting/Directing student; THEA 251, THEA 252, and THEA g455; and permission of instructor. D

THEA 470 Contemporary Theatre 3 credits. World drama and theatre during the two most recent decades. AS

THEA g490 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 g491 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. F, S

Women Studies Program

Program Director and Assistant Professor: Kuhlman (History)
Interim Assistant Director: McCoy Emerita: Buckman
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. David Adler (Political Science)
• Dr. Nicole Hill (Kasiska College of Health Professions)
• Dr. Ann Hunter (Sociology, Social Work and Criminal Justice)
• Ms. Kathleen Lane (Music)
• Dr. Shannon Lynch (Psychology)
• Dr. Rebecca Morrow (Anderson Gender Resource Center)
• Dr. Priscilla Reis (College of Business)
• Ms. Nancy Rem (Kasiska College of Health Professions)
• Ms. Valerie Williams (College of Education)
• Dr. Laura Woodworth-Ney (History)
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 (208-282-8079).

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:**
- W S 201 Introduction to Women Studies 3 cr
- W S 401 Feminist Thought 3 cr

**Choose 12 credits from:**
- ANTH 215 Anthropology of Gender 3 cr
- H E 440 Human Sexuality and Health Education 2 cr
- HIST 437 Families in Former Times 3 cr
- HIST 439 Women in History 3 cr
- SOC 250 Women, Crime and Corrections 3 cr
- SOC 321 Families in American Society 3 cr
- COMM 440 Gender and Communication 3 cr
- W S 311 American Women's Movements 3 cr
- W S 459 Internship 1-6 cr
- W S g461 Independent Study 1-3 cr

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 W S 459 Internship and up to 6 credits of g461 Independent Study. A maximum of nine credits from any combination of W S 459 Internship and W S 461 Independent Study are applicable to the Women Studies minor.

Women Studies Courses

**W S 160 Rape Aggression Defense 1 credit.** Strategies for self-defense in physically threatening situations. Methods to enhance possibilities for avoidance of physical harm are also covered. Cross-listed as H E and P E 160. F, S

**W S 201 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. F

**W S 205 Topics in Women Studies 1-3 credits.** Examination of topics related to Women Studies. D

**W S 311 American Women’s Movements 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. S

**W S 401 Feminist Thought 3 credits.** In-depth analysis and historical overview of various feminist perspectives including liberal, radical, Marxist-Socialist, psychoanalytic, post-modern, existential, multi-cultural, third world, and eco-feminism. PREREQ: W S 201. F

**W S 405 Topics in Women Studies 1-3 credits.** In-depth examination of topics relating to women studies, especially from a comparative or theoretical perspective. D

**W S 459 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: W S 201. D

**W S g461 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 W S 201 or equivalent; permission of instructor. D
College of Business

Kenneth A. Smith, Ph.D., Dean
Corey Schou, Ph.D., Associate Dean for
Information Assurance
Kregg Aytes, Ph.D., Associate Dean
Robert Picard, Ph.D., Associate Dean

Department of Accounting
Chair and Professor: Picard
Professors: Boes, Frischmann, Plewa, K. Smith
Associate Professor: Reis
Assistant Professor: Bezik
Emeriti: J. Smith, Pumphrey

Department of Computer Information Systems
Chair and Professor: Ottaway
Professors: Aytes, Beachboard, Beard, Parker, C. Schou
Associate Professor: Trimmer
Assistant Professor: Tay
Lecturers: Munson, Nelson
Emeritus: Watts

Department of Finance
Chair and Professor: Byers
Professors: Hackert, Klang
Associate Professors: Brookman, Santhanakrishnan
Emeriti: Longmore, Wells

Department of Management
Chair and Professor: Jolly
Professors: Krumwiede, Lund Dean, Stratton, Tokle
Associate Professor: Murphy
Assistant Professors: Anderson, Street, Tocher
Visiting Assistant Professor: Gerry
Senior Lecturers: Peppers, S. Schou
Lecturer: Peterson
Assistant Lecturer: Russell
Emeriti: Gantt, Johnson, Kilpatrick, Pawar

Department of Marketing
Chair and Professor: Speck
Professors: Hoover, Nitse
Assistant Professor: Carter
Emeriti: Balsley, LeBlanc, Schwendig, 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
To meet the demands of the business environment and provide a more effective educational environment, the College of Business undergraduate curriculum emphasizes the following principal skills:

1. Problem solving and effective communication.

   - These skills are embedded within courses across the curriculum as appropriate.

   Additional courses at the sophomore, junior, and senior levels focus on developing and assessing students’ abilities to:

   -- solve the types of unstructured problems faced in the business environment;

   -- write effectively; and

   -- conduct effective oral presentations.

2. Using computer technology to effectively solve problems and communicate.

   - Students entering the College of Business are required to own a notebook computer and to bring it to class regularly.

3. Building teamwork and cooperative learning skills.

   - Students are encouraged to participate in a voluntary cohort program where they take the core business courses together with the same group of students.

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 following requirements:
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 300 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 510
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.

ACCT 201 Principles of Accounting I 3 cr
ACCT 202 Principles of Accounting II 3 cr
BA 200 Professional Development Seminar I 1 cr
COMM 101 Principles of Speech 3 cr
ECON 201 Principles of Macroeconomics 3 cr
ECON 202 Principles of Microeconomics 3 cr
ENGL 101 English Composition 3 cr
ENGL 102 Critical Reading and Writing 3 cr
MGT 216 Business Statistics 3 cr

Either the following course:
MATH 160 Applied Calculus 3 cr

OR BOTH of the following two courses:
MATH 130 Finite Mathematics 3 cr
MATH 143 College Algebra 3 cr

TOTAL: 25 or 28 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 Goals 1-9, 10A or 10B, and 11-12. (Note that certain goals may be met by specific College of Business requirements listed below: Goal 3 by MATH 160 or by MATH 130 and MATH 143; Goal 11 by ECON 201 and 202.)

Specific College of Business Graduation Requirements

Several of the specific graduation requirements listed below may also be used to satisfy General Education Requirements (Goals 1-12).

Note:
A minimum grade of C- (C Minus) or better is required to fulfill all College of Business Core Requirements, Major Requirements, and Specific Graduation Requirements. The C- or better requirement extends to satisfying prerequisites for all College of Business courses.

A minimum of 57 credits in courses not taught by the College of Business is required to graduate. The minimum total required to graduate is 128 credits.

Core Requirements

To assure a minimum level of competence in all functional areas of business, the College of Business requires each student to complete the following courses:

Either this course:
MATH 160 Applied Calculus 3 cr

OR BOTH of the following two courses:
MATH 130 Finite Mathematics 3 cr
MATH 143 College Algebra 3 cr

TOTAL: 21 or 24 cr

MGT 217 Advanced Business Statistics 3 cr
MGT 261 Legal Environment of Organizations 3 cr
MGT 312* Individual and Organizational Behavior 3 cr
MGT 329 Operations/Production Management 3 cr
MKTG 325* Basic Marketing Management 3 cr

*HCA 350 and HCA 473 are recommended substitutes for MGT 312 and MKTG 325, respectively, for students seeking the Major in Healthcare Information Systems Management.
**College of Business**

**Residency Requirement**

Of the last 40 credits applied to meet graduation requirements, 32 must be completed in residence at Idaho State University including adult learning centers. At least half of all business credits taken to meet degree requirements and half of the credits used to meet specific major requirements must be taken in Pocatello or Idaho Falls. No more than 16 credits of correspondence or one-way media instruction may be used to satisfy degree requirements.

**Repeating Business Courses**

No College of Business course may be repeated more than once, except by petition approved by the department chair. Students wishing to repeat a course more than once will begin the petition process by meeting with the instructor of the course to discuss potential remedies to past performance problems. If a student has a major outside the College of Business, the College of Business will confer with the student's department chair when making a decision regarding the petition.

**Alternatives to MATH 143**

**Requirement and Prerequisites**

The MATH 143 requirement and prerequisites 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**

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 both a B.B.A. in Accounting and an M.B.A. with Emphasis in Accounting.

The program strives to produce graduates with the knowledge and skills necessary for successful professional accounting careers. Both the undergraduate and graduate degrees emphasize characteristics that promote success among graduates, including:

- business and accounting knowledge;
- capability and motivation for continued learning;
- competence in learning skills (including research of data bases);
- abilities to analyze, critique, and communicate;
- interpersonal skills, and
- rigorous ethical standards.

The undergraduate degree program prepares accountants with broad knowledge in business and accounting suitable for entry level positions in the several career paths available to accountants. The M.B.A. Accounting Emphasis program enhances the knowledge and skills useful for rapid advancement in either managerial or 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.

**Required Courses (12 cr):**

- ACCT 323 Intermediate Accounting I 3 cr
- ACCT 324 Intermediate Accounting II 3 cr
- ACCT 331 Principles of Taxation 3 cr
- ACCT 425 Intermediate Accounting III 3 cr
- ACCT 431 Managerial and Cost Accounting 3 cr
- ACCT 456 Auditing 3 cr
- CIS 403 Systems Analysis and Logical Design 3 cr

**Elective Courses**

With the permission of the department chair, select 3 credits from senior level accounting, finance, or CIS classes, or MGT g434 or MGRT g482.

**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 that technology to effectively support an organization’s operations.

**Required Courses (12 cr):**

- CIS 120 Interactive Web Programming 3 cr
- CIS 285 Introduction to Software and Systems Architecture 3 cr
- CIS 403 Systems Analysis and Logical Design 3 cr
- CIS 407 Database Design and Implementation 3 cr

**Plus TWO of the following (6 cr):**

- CIS 220 Foundations of Computer Programming 3 cr
- CIS 320 Advanced Business Programming 3 cr
- CIS 411 Intermediate Information Assurance 3 cr
- CIS 421 Multimedia in Business 3 cr
- CIS 424 Decision Support Systems 3 cr
- CIS 430 E-Business and Web Development 3 cr
- CIS 440 Object Oriented Development 3 cr
- CIS 482 Advanced System Analysis and Design 3 cr
- CIS 485 Network and Communications Systems 3 cr
- CIS 486 Business Systems Simulation 3 cr
- CIS 487 Software Systems 3 cr
- CIS 490 Management of Information Systems and Information Security 3 cr
- CIS 491 Seminar in Computer Information Systems 3 cr
- CIS 492 Special Problems in Computer Information Systems 3 cr
- MGT 482 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 405 Advanced Corporate 3 cr
- FIN 450 Advanced Corporate 3 cr
- FIN 478 Investments 3 cr

**Plus THREE of the following, of which TWO must be within the Finance Department:**

- FIN 431 Financial Modeling 3 cr
- FIN 445 Real Estate Finance 3 cr
- FIN 448 Financial Management of Depository Institutions 3 cr
- FIN 451 Student-Managed Investment Fund I 3 cr
FIN g452  Student-Managed Investment Fund II 3 cr
FIN g464  Entrepreneurial Finance 3 cr
FIN g475  International Corporate Finance 3 cr
FIN g484  Options and Futures 3 cr
FIN g491  Seminar in Finance 3 cr
FIN g492  Special Problems in Finance 3 cr
Any 300-400 level Economics course except Independent Studies, Seminars, Workshops, and Internships 3 cr
Any 300-400 level Accounting, Management, CIS, or Marketing course except ACCT 360, Seminars, Special Problems, Internships, and courses used to fulfill the College of Business Core Requirements. Graded 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.

Choose six classes from this list to complete the major:

- ACCT 360  Small Business Accounting 3 cr
- ACCT g441  Management Control Systems 3 cr
- CIS g403  Systems Analysis and Logical Design 3 cr
- CIS g407  Database Design and Implementation 3 cr
- FIN g431  Financial Modeling 3 cr
- FIN g478  Investments 3 cr
- MGT g410  Entrepreneurship 3 cr
- MGT g441  Organizational Behavior 3 cr
- MGT g465  International Business 3 cr
- MKTG g432  New Product Management 3 cr
- MKTG g475  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 College 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 minor 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:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 120</td>
<td>Foundations of Computer Programming</td>
</tr>
<tr>
<td>CIS 285</td>
<td>Introduction to Software and Systems Architecture</td>
</tr>
<tr>
<td>CIS 403</td>
<td>Systems Analysis and Logical Design</td>
</tr>
<tr>
<td>CIS 407</td>
<td>Database Design and Implementation Intermediate</td>
</tr>
<tr>
<td>CIS 411</td>
<td>Information Assurance</td>
</tr>
<tr>
<td>CIS 485</td>
<td>Network and Communications Systems</td>
</tr>
<tr>
<td>MGT g482</td>
<td>Project Management</td>
</tr>
<tr>
<td>HCA 115</td>
<td>U.S. Health System</td>
</tr>
<tr>
<td>HCA 330</td>
<td>Health Information Systems</td>
</tr>
<tr>
<td>HCA 460</td>
<td>Operations and Quality</td>
</tr>
<tr>
<td>HCA 489</td>
<td>Health Care Information Systems Practicum</td>
</tr>
</tbody>
</table>

**TOTAL:** 33 cr

**Marketing Major**

Marketing majors may earn a degree in Marketing with emphasis in Entrepreneurship or a degree in Marketing with emphasis in Entrepreneurship/Small Business (see description below).

**Required Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
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<tbody>
<tr>
<td>MKTG 327</td>
<td>Consumer Behavior</td>
</tr>
<tr>
<td>MKTG 353</td>
<td>Methods of Marketing Analysis*</td>
</tr>
<tr>
<td>MKTG 421</td>
<td>Services Marketing</td>
</tr>
<tr>
<td>MKTG g426</td>
<td>Marketing Research</td>
</tr>
<tr>
<td>MKTG g428</td>
<td>Marketing Communications</td>
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<tr>
<td>MKTG g432</td>
<td>New Product Management</td>
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</tbody>
</table>

**Plus THREE of the following:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>MKTG 350</td>
<td>Personal Selling</td>
</tr>
<tr>
<td>MKTG 353</td>
<td>Methods of Marketing Analysis</td>
</tr>
<tr>
<td>MKTG 367</td>
<td>Markets and Segmentation</td>
</tr>
<tr>
<td>MKTG 370</td>
<td>Sales and Management</td>
</tr>
<tr>
<td>MKTG g405</td>
<td>Sales Force Management</td>
</tr>
<tr>
<td>MKTG g421</td>
<td>Services Marketing</td>
</tr>
<tr>
<td>MKTG g426</td>
<td>Marketing Research</td>
</tr>
<tr>
<td>MKTG g428</td>
<td>Marketing Communications</td>
</tr>
<tr>
<td>MKTG g432</td>
<td>New Product Management</td>
</tr>
</tbody>
</table>

**Double Major in Management and Marketing**

Students pursuing the Double Major will take the following courses:

**Management:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT g410</td>
<td>Entrepreneurship</td>
</tr>
<tr>
<td>MGT g411</td>
<td>Entrepreneurship/Small Business</td>
</tr>
<tr>
<td>MGT g430</td>
<td>Advanced Operations</td>
</tr>
<tr>
<td>MGT g434</td>
<td>Productivity and Quality</td>
</tr>
<tr>
<td>MGT g450</td>
<td>Manufacturing Strategy</td>
</tr>
<tr>
<td>MGT g461</td>
<td>Business Law</td>
</tr>
<tr>
<td>MGT g465</td>
<td>International Business</td>
</tr>
<tr>
<td>MGT g474</td>
<td>Advanced Human Resource Management</td>
</tr>
<tr>
<td>MGT g480</td>
<td>Labor and Employment Law</td>
</tr>
<tr>
<td>MGT g482</td>
<td>Project Management</td>
</tr>
<tr>
<td>MGT g483</td>
<td>Industrial Relations</td>
</tr>
<tr>
<td>MGT g491</td>
<td>Seminar in Management</td>
</tr>
<tr>
<td>MGT g492</td>
<td>Special Problems in Management</td>
</tr>
</tbody>
</table>

**TOTAL:** 18 cr

*May be used only for the emphasis in Entrepreneurship/Small Business.

**Marketing:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 410</td>
<td>Entrepreneurship</td>
</tr>
<tr>
<td>MGT g432</td>
<td>New Product Management</td>
</tr>
<tr>
<td>MGT g475</td>
<td>Competitive Intelligence</td>
</tr>
<tr>
<td>MKTG g421</td>
<td>Services Marketing</td>
</tr>
</tbody>
</table>

**TOTAL:** 3 cr
Entrepreneurship/Small Business Emphasis
This emphasis may be added to a major in Finance, Management, or Marketing. Any College of Business course numbered 491, 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 g410  Entrepreneurship  3 cr
   - MGT g411  Small Business and Entrepreneurship Practicum  3 cr
   and two of the following:
   - ACCT 341  Managerial and Cost Accounting  3 cr
   - ACCT 360  Small Business Accounting and Finance  3 cr
   - FIN g464  Entrepreneurial Finance  3 cr
   - MKTG g432  New Product Management  3 cr
   - MKTG g475  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 Resource Management Emphasis.

Required Courses:
- MGT g441  Organization Behavior  3 cr
- MGT g462  Issues in Business and Society  3 cr
- MGT g473  Human Resource Management  3 cr
- MGT g474  Advanced Human Resource Management  3 cr
- MGT g480  Labor and Employment Law  3 cr

And one of the following:
- MGT g434  Productivity and Quality  3 cr
- MGT g461  Business Law  3 cr
- MGT g482  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 420  Native American Organizational Systems  3 cr
   - MGT 422  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 g434 and g482 to satisfy major electives and the Operations Management Emphasis Requirements.

Required courses:
- ACCT 341  Management and Cost Accounting  3 cr
- MGT g434  Productivity and Quality  3 cr
- MGT g482  Project Management  3 cr

One elective to be chosen from the following courses:
- CIS g403  Systems Analysis  3 cr
- CIS g486  Business System Simulation  3 cr
- CIS g490  Management of Information Systems  3 cr
- FIN g450  Advanced Corporate Financial Management  3 cr
- MKTG g432  New Product Management  3 cr
- MKTG g421  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 120  Interactive Web Development  3 cr
- CIS 301  Information Management Systems  3 cr
- CIS g403  Systems Analysis and Logical Design  3 cr

Information Systems Electives
Plus 12 additional credits chosen from any CIS courses (except CIS 101) or MGT g482.

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. COURSESTODEVELOPCULTURAL 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
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 MBA 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):

Required Courses (6 credit hours):
- MKTG 325 Basic Marketing Management 3 cr
- MKTG 327 Consumer Behavior 3 cr

Marketing Electives (at least 6-12 credit hours):
Two to four marketing electives, which may include any elective from the list of marketing courses below, as well as MKTG 454 Advanced Marketing Management, if prerequisites for that course are met. 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. See below).
- MKTG 350 Personal Selling 3 cr
- MKTG 353 Methods of Marketing Analysis 3 cr
- MKTG 367 Markets and Segmentation 3 cr
- MKTG 370 Sales and Sales Management 3 cr

Other Electives from Student's Major Related to Marketing (no more than 6 credit hours, which must be at 200-level or higher):
The following are examples of courses which would qualify for inclusion in the Marketing Minor:
- M C 200 Introduction to Advertising 3 cr
- M C 241 Introduction to Public Relations 3 cr
- COMM 355 Nonverbal Communication 3 cr
- ANTH 250 Introduction to Cultural Anthropology 3 cr
- PSYC 250 Female and Male Roles 3 cr
- SOC 335 Population and Environment 3 cr
- SOC 366 The Community 3 cr

These electives must be approved prior to completion of MKTG 325 by the Chair of the Marketing Department in order to be counted toward the minor.
Idaho Falls Programs

The Idaho State University College of Business offers the Bachelor of Business Administration (B.B.A.) in General Business, 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.

EITC/Idaho State University Program

Eastern Idaho Technical College (EITC) and the College of Business cooperatively deliver an Associate of Applied Science (A.A.S.) degree in Marketing and Management. The A.A.S. is offered by EITC and students interested in the program should consult the EITC catalog for a detailed listing of the requirements. The purpose of this program is to provide Idaho Falls area residents with a business associate degree that combines the immediate job skills of a technical program with the academic foundation needed for the Bachelor of Business Administration (B.B.A.) degree. Students in this program must meet the general admission requirements of both EITC and Idaho State University.

The A.A.S. combines 32-36 credits of EITC business courses, 15-18 credits of Idaho State University business and economics courses, and 23-26 credits of general education courses for a total associate degree of 75 credits. Those completing this cooperative A.A.S. and who include Math 160 and MGT 216 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 G.P.A. in these eight courses: ENGL 102, COMM 101, ECON 201, ECON 202, MATH 160, (or MATH 130 and 143), ACCT 202, MGT 216, and MGT 261.

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 201 requirement for the B.B.A. if they have earned a grade of "C" or better in ACCT 202. Specific credit for ACCT 201 will, however, not be awarded.

Accounting Courses

ACCT 200 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 201 Principles of Accounting 1 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 101 and MATH 143. F, S

ACCT 202 Principles of Accounting II 3 credits.

Understanding a business from an internal management perspective. Basic terminology and use of basic cost behavior, cost analysis, and planning models to support a firm's decision making process. Basic spreadsheet assignments using Excel. PREREQ: ACCT 201 and MATH 143. F, S

ACCT 303 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 323 Intermediate Accounting 1 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 201, ENGL 101, ECON 201, ECON 202 and MATH 143 or ACT=27 or SAT=620 or Compass Algebra=51 or Compass Trigonometry=51. PREREQ OR COREQ: FIN 315 or FIN 317. F, S

ACCT 324 Intermediate Accounting II 3 credits.

Continuation of ACCT 323. Accounting principles of valuation and income determination. Financial accounting reporting in concept as well as in accordance with generally accepted accounting principles. PREREQ: ACCT 323, ENGL 101, ECON 201, ECON 202 and MATH 143. PREREQ OR COREQ: FIN 315 or FIN 317. F, S

ACCT 331 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: ACCT 202, ENGL 101, ECON 201, ECON 202, and MATH 143. F, S
**ACCT 341 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 201, ACCT 202, MGT 217, and MATH 143. PREREQ OR COREQ: ENGL 308. F, S

**ACCT 350 Junior Accounting Seminar 1 credit.** Seminar requiring students to research and present specialized accounting topics. PREREQ: ENGL 101, ECON 201, ECON 202, and MATH 143. PREREQ OR COREQ: ACCT 323, and FIN 315 or FIN 317. D

**ACCT 360 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 201 and ACCT 202. D

**ACCT g400 Managerial Tax Planning 3 credits.** For prospective business managers, owners, or investors interested in important tax consequences of alternative financial transactions. PREREQ: ECON 201, ECON 202, and FIN 315. D

**ACCT 425 Intermediate Accounting III 3 credits.** Continuation of ACCT 324. Accounting principles of valuation and income determination. Financial accounting reporting in concept as well as in accordance with generally accepted accounting principles. PREREQ: ENGL 101, ECON 201, and ECON 202; and MATH 143 or ACT=27 or SAT=620 or Compass Algebra=51 or Compass Trigonometry=51 and ACCT 324. PREREQ OR COREQ: FIN 315 or FIN 317. D

**ACCT g431 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: ENGL 101, ECON 201, ECON 202, and MATH 143. D

**ACCT 433 Legal Environment of Accounting 3 credits.** Study of legal issues facing accountants, including business law, forms of organizations, and regulatory requirements. PREREQ: ECON 201, ECON 202, and MGT 261. D

**ACCT g441 Management Control Systems 3 credits.** Focuses on strategic and managerial evaluation and control systems using financial and nonfinancial accounting information. PREREQ: ACCT 201, ACCT 202, ENGL 101, ECON 201, ECON 202, MGT 217 and MATH 143 and ACCT 341, ENGL 308, or senior standing and permission of instructor. D

**ACCT g456 Auditing 3 credits.** Concepts and practices of independent and internal auditing. Professional responsibilities, risk assessment, audit planning and reporting. PREREQ: ACCT 324, MGT 216, ECON 201, ECON 202, ENGL 101, and MATH 143. PREREQ OR COREQ: CIS g403. F, S

**ACCT g457 Advanced Auditing 3 credits.** Integration of financial statement auditing concepts in case discussions. Research into contemporary auditing literature. PREREQ: ACCT g456, ACCT 324, MGT 216, CIS g403, ECON 201, ECON 202, ENGL 101, and MATH 143. D

**ACCT g460 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 324, ECON 201, ECON 202, ENGL 101, and MATH 143. D

**ACCT g461 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 324, ECON 201, ECON 202, ENGL 101, and MATH 143. D

**ACCT g470 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 341, ACCT 201, ACCT 202, ECON 201, ECON 202, and MATH 143. D

**ACCT 480 Comparative International Accounting 3 credits.** Study of systems that have proven to be problems in an international accounting context, particularly for corporate financial reporting. Also, the progress toward international harmonization of financial reporting and taxation. PREREQ: ACCT 324, ECON 201, ECON 202, ENGL 101, and MATH 143. D

**ACCT g490 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 461, ACCT 324, ECON 201, ECON 202, ENGL 101. PREREQ OR COREQ: MATH 143. D

**ACCT g491 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 g492 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 g493 Accounting Internship 1-3 credits.** A program of significant business experience and training in the practice of accounting, including aspects of accounting and development of career opportunities. COREQ: ENGL 308. F, S

**Business Administration Courses**

**BA 200 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. PREREQ OR COREQ: ACCT 202. F, S, Su

**BA 203 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 301 Professional Development Seminar II 1 credit.** Examination of critical thinking models and development of writing, oral communication, and teamwork skills using assignments from CIS 301. Must be taken concurrently with the same numbered section of CIS 301. COREQ: CIS 301. F, S, Su

**BA 302 Professional Development Seminar III 1 credit.** Examination of critical thinking models and development of writing, oral communication, and teamwork skills using assignments from CIS 302. Must be taken concurrently with the same numbered section of CIS 302. COREQ: CIS 302. F, S, Su

**BA 400 Professional Development Seminar IV 1 credit.** Assessment and development of critical thinking and communication skills. Investigation of business career and placement opportunities. COREQ: MGMT 460. F, S, Su

**Computer Information Systems Courses**

**CIS 010 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. PREREQ: Permission of instructor. D

**CIS 101 Introduction to Computer Systems 3 credits.** Introduction to effective use of computers for all majors. Includes hands-on use of current computer software, description of computer systems, data files storage and devices, input/output procedures, computer logic. Lectures, laboratories. F, S

**CIS 101L Introduction to Computer Systems Laboratory 0 credits.** Assignments to apply concepts from CIS 101. F, S

**CIS 120 Interactive Web Development 3 credits.** Introduction to developing interactive/dynamic websites, including HTML, scripting, style sheets. F, S
CIS g492 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 g493 Computer Information Systems Internship 1-3 credits. Significant business experience coordinated by the faculty to provide broad exposure to issues. Does not fulfill major/minor requirements. May be repeated for up to 9 credits. Graded S/U. F, S

**Finance Courses**

FIN 115 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 303 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 203. D

FIN 315 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: ACCT 201, ACCT 202, ECON 201, ECON 202, and MGT 216. PREREQ OR COREQ: BA 301 and CIS 301. F, S

FIN 317 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 315, ACCT 201, ACCT 202, ECON 201, ECON 202 and MGT 216. F, S

FIN 405 Advanced Corporate Financial Management 3 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 315 and MGT 216. F

FIN g31 Financial Modeling 3 credits. Survey of integrative modeling with special applications of computer models. Includes topics from cash flow forecasting, mergers and acquisition, financial structure, and capital budgeting. PREREQ: FIN 315. D

FIN g445 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 315. D

FIN g448 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 315. D

FIN g450 Advanced Corporate Financial Management II 3 credits. Advanced development of financial statement analysis, financial planning, working capital management and special topics emphasizing analysis and application to financial management decisions. PREREQ: FIN 315 and MGT 216. S

FIN g451 Student-Managed Investment Fund I 3 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 451 or FIN 452, but not both, toward their finance electives. PREREQ: FIN 317. F

FIN g452 Student-Managed Investment Fund II 3 credits. Continuation of FIN 451. 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 451 or FIN 452, but not both, toward their finance electives. PREREQ: FIN 317. S

FIN g464 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 315. D

FIN g475 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 315 and MGT 216. D

FIN g478 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 315, FIN 317 and MGT 216. S, F

FIN g484 Options and Futures 3 credits. Examination of the pricing and use of options, financial futures, swaps, and other derivative securities. PREREQ: FIN 315, FIN 317, and MGT 216. D

FIN g491 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 g492 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 g493 Finance Internship I 3 credits. Internship 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

**Management Courses**

MGT 101 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 216 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. PREREQ OR COREQ: MATH 143. F, S

MGT 217 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 216. PREREQ OR COREQ: MATH 143. F, S

MGT 261 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 303 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 312 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 102. F, S

MGT 329 Operations and Production Management 3 credits. Basic concepts, philosophy, and techniques of analysis for decision-making at the operational level. PREREQ: ACCT 202, BA 301, CIS 301, and MGT 217. F, S

MGT 345 Business Communications 3 credits. Provides the student with the opportunity and motivation to improve communications skills with emphasis on their application to business. Critical reading and writing skills as well as effective public speaking techniques are stressed. PREREQ: 6 hours of English Composition. D
MGT 410 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 economics to accommodate changing marketing opportunities. PREREQ: FIN 315, MGT 312, and MKTG 325; Business major or permission of dean. D

MGT 411 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. PREREQ: MGT 410. D

MGT 420 Native American Organizational Systems 3 credits. Analysis of factors and dimensions to be considered in the structure and design of contemporary Native American organizations. Comparison of contemporary Native organizational systems with traditional Native organizational approaches and contemporary non-Native organizations. PREREQ: MGT 312 or permission of instructor. D

MGT 422 Native American Enterprise 3 credits. Approaches, strategies, and models utilized in developing tribally-owned and privately-owned Native American businesses across the U.S. and Canada. Analysis of social, economic, and environmental contingency factors that contribute to successful establishment of Native American businesses. PREREQ: MGT 312 or permission of instructor. D

MGT 430 Advanced Operations and Production Management 3 credits. Study of problems of line management in organizations. Major sections include strategy, process analysis, manpower planning, inventories, scheduling, and control of operations. Emphasizes both behavioral and technical aspects of problem solving in the area of operations management. PREREQ: MGT 329 and MGT 312. D

MGT 434 Productivity and Quality 3 credits. Study of the factors involved in an organization’s productivity and quality of product or service. PREREQ: MGT 329 and MGT 312. D

MGT 441 Organization Behavior 3 credits. Case study approach designed to encourage independent thought in the application of behavioral theories and concepts or organizational problems. Emphasis on integrating theoretical concepts with patterns of organizational direction, control, communications, and decision making. PREREQ: MGT 312. F, S

MGT 450 Manufacturing Strategy 3 credits. Study of the various production alternatives as critical factors in a company’s competitive strategies. PREREQ: MGT 329 AND MGT 312. D

MGT 460 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 BA 301, CIS 301, FIN 313, FIN 317, MGT 312, MGT 329, and MKTG 325. COREQ: BA 400. F, S

MGT 461 Business Law 3 credits. Traditional business law. Topics include the law of contracts, sales, agencies, business organizations, and personal property and bailments. PREREQ: MGT 261. D

MKTG 462 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

MKTG 465 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 310 and FIN 317. D

MKTG 473 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 312. F, S

MKTG 474 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 217 and MGT 473. S

MKTG 480 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 261 or MGT 473. F

MKTG 482 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 329 or permission of instructor. D

MKTG 483 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 312. D

MKTG 491 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: MGT 329 and permission of instructor. D

MKTG 492 Special Problems in Management 2-3 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 493 Management Internship I-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. Graded S/U. F, S

Marketing Courses

MKTG 303 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 their chosen majors. Available to non-business majors only. D

MKTG 325 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 327 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 325. F, S

MKTG 350 Personal Selling 3 credits. Attention given to product features, buying motives, selling points, principles and practices of selling, and sales administrative and personal requirements, opportunities. PREREQ: COMM 201, MKTG 325. D

MKTG 353 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 325. F

MKTG 367 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 325. D

MKTG 370 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 325. D

MKTG 405 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. D

MKTG 421 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 325. D

MKTG 426 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 216 and MKTG 325. S

MKTG g428 Marketing Communications 3 credits. Introduction to the promotion process of business enterprises and other types of organizations. Emphasizes the management and implementation of advertising and sales promotion. Includes organizing and operating a sales force. PREREQ: MKTG 325. D

MKTG g432 New Product Management 3 credits. Analysis of new product ideas: screening, business analysis, prototype development, market testing, and commercialization of goods and services. Includes diffusion of innovation issues in consumer and industrial markets. PREREQ: MKTG 325. D

MKTG g440 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 325 and Permission of the instructor. D

MKTG 454 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 g465 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 325. D

MKTG g475 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 325. D

MKTG g480 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 325. D

MKTG g491 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 g492 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 493 Marketing Internship 1-3 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. Graded S/U. F, S
College of Education

Deborah L. Hedeen, Ph.D., Dean
Jack D. Newsome, Ph. D., Associate Dean
Peter R. Denner, Ph.D., Assistant Dean

The College of Education prepares students (known as "candidates") who will enter the profession of education. Candidates pursuing teaching, professional school personnel, or administrative careers in schools and other education agencies will find an assortment of integrated programs organized to meet their professional aspirations. All programs of the College are experiential, collaborative, problem-centered, standards-based, assessment-informed, research-guided, and technologically-supported. The College is organized into four departments:

- Educational Foundations
- School Psychology, Literacy, and Special Education
- Graduate Department of Educational Leadership and Instructional Design (see the Graduate Catalog)
- Sport Science and Physical Education

Accreditations

The professional degrees offered by the College of Education comply with State of Idaho standards for certification and licensure that ensure reciprocity standards with many other states.

The College of Education is fully accredited by the National Council for the Accreditation of Teacher Education (NCATE). The preschool laboratory is accredited by the National Academy of Early Childhood Programs. The Bachelor of Music Education is accredited by the National Association of Schools of Music in the Department of Music, which is in the College of Arts and Sciences. The School Psychology program is accredited by the National Association of School Psychologists. The Special Education program is accredited by the Council for Exceptional Children.

Idaho State University has an institutional commitment to the preparation of teachers. This commitment is carried out by the faculties of the College of Education, the College of Arts and Sciences, and the Kasiska College of Health Professions, working in close cooperation through the Teacher Education Committee. This committee represents the joint curriculum and professional aspects of teacher education and is a subcommittee of the University Curriculum Council. The College of Education shares responsibility with the College of Arts and Sciences and the Kasiska College of Health Professions for many of the secondary level teacher education degrees.

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 (Home Economics)
  - Human Exceptionality
  - Physical Education
  - Secondary Education
- Bachelor of Music Education

College of Education Advising Center

Paula Mandeville, Coordinator

Through the College of Education Advising Center, candidates receive specific advising information relative to admission to teacher education, undergraduate advisor assignments, transfer course evaluations, petitions, academic appeals, and certification recommendations. An advisor is appointed for each candidate who applies for admission to teacher education or files an intent to become a declared major in the College of Education.

Declaration of Major

Declaration of major must be accomplished by the time a candidate has completed 58 credits of coursework.

General Education Requirements

All candidates who have declared a major in the College of Education and plan to acquire a Bachelor of Arts or Bachelor of Music Education degree must complete all goals of the University’s general education requirements (Goals 1, 2, 3, 4, 5, 6, 7, 8, 9, 10A or 10B, 11, and 12).

Candidates pursuing a Bachelor of Science degree must complete Goals 1, 2, 3, 4, 5, two of Goals 6, 7, and 8; and three of Goals 9, 10A or 10B, 11 and 12. A checklist available in the College of Education Advising Center provides goal selection guidance for candidates in the elementary, secondary and early childhood education programs.

Candidates transferring to Idaho State University from a junior college that is part of the statewide articulation agreement should refer to the General Information section of this catalogue 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, Goals 1, 2, and 3.

Candidates who possess a bachelor’s degree in a discipline other than education and desire to complete requirements for a teaching certificate in any area, must complete, or have completed, Goals 1, 2, and 3 or their equivalents.

Specific general education requirements unique to individual programs in the College of Education are listed with the program in this section of the catalogue.

Education of the Deaf

Individuals interested in becoming certified teachers of children who are deaf/hard of hearing in Idaho will need to meet all requirements of the Idaho State Board of Education. Undergraduate candidates preparing to do this should consult the Office of the Dean, College of Education, as well as the Teacher Education Program for details about admission into an undergraduate program in Elementary, Secondary or Special Education. Individuals who have completed the required undergraduate teacher education program should consult the Department of Communication Sciences & Disorders, and the Education of the Deaf, Kasiska College of Health Professions, for information about the graduate degree program in the Education of the Deaf.
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 the ADA and Disabilities Resource Center, (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.

Petitions
Petitions from candidates concerning College of Education and/or teacher education requirements are initiated with the advisor on forms which are available in the Teacher Education Advising Center. The advisor will review the petition for form and content and provide a recommendation. The candidate next seeks the signature and recommendation of the appropriate Director/Department Chair, then files it in the Dean's office for review and/or action. Petitions concerning general education requirements of the university must also have the signature of the Assistant Dean, College of Arts and Sciences.

Intermountain Center for Education Effectiveness
Charles (Chuck) R. Zimmerly, Ed.D., Director
Susan Jenkins, Ph.D., Associate Director
The mission of the Intermountain Center for Education Effectiveness (ICEE) is to collaborate 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 for the persons we serve. The ICEE coordinates professional education programs and coursework, agency/school development, business and community partnerships, and research with its related services.

These functions are performed in cooperation with the following agencies within this office:
• Center for Policy Studies and Education Research
• Center for Accountability Systems
• Center for Economic Education
• Center for Effective Schools

• Center for Technology Solutions
• League of Schools
• Leadership Development Academy
• Collaborative partnerships with schools and businesses

Department of Educational Foundations
Chair and Professor: Ray
Professors: Denner, Jenkins, Peña, Rankin
Associate Professors: Coffland,* Jack Newsome, Julie Newsome, Sanger
Assistant Professors: Counsell, Moulton*
Associate Lecturers: Jacobsen, Lin
Assistant Lecturers: Kauer, Toevs
Emeritae: Bliss, Lucky
*Faculty members affiliated with the Graduate Department of Educational Leadership and Instructional Design who also teach in Educational Foundations.

The Department of Educational Foundations is comprised of the following program areas:
Business Education
Child and Family Studies
Early Childhood Education
Teacher 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.

Business Education Courses
B ED 100 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

B ED 102 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

B ED 310 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

B ED 320 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

B ED 330 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
Bachelor of Arts or 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 degree in General Family and Consumer Sciences (a minimum of 128 credits) 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’s Degree in General Family and Consumer Sciences (128 credits minimum)

**University General Education Requirements**

Candidates pursuing a Bachelor of Arts degree in General Family and Consumer Sciences must complete Goals 1-9, 10A or 10B, and Goals 11-12. Candidates pursu-
Secondary Single Subject Major in Family and Consumer Sciences Education

The Family and Consumer Sciences Education major (a minimum of 128 credits) 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 minor such as Consumer Economics, Health or Natural Science.

Summary of Requirements for a Bachelor’s Degree in Secondary Education with a Major in Family and Consumer Sciences Education (128 credits minimum)

University General Education Requirements
Candidates pursuing a Bachelor of Arts in Secondary Education with a major in Family and Consumer Sciences Education must complete Goals 1-9, 10A or 10B, and Goals 11-12. Candidates pursuing a Bachelor of Science degree must complete Goals 1-6, Goal 7 or 8, Goal 9 or 10, and Goals 11-12. It is strongly recommended that Goal 3 be met by MATH 108 and 253; Goal 4 by BIOL 100; and Goal 5 by CHEM 100. The program requires that Goal 6 be met by ART 100; Goal 11 by ECON 201; and Goal 12 by PSYC 101 AND SOC 101.

Required Courses
Required courses must be taken in the recommended sequence. The candidate must work closely with a Family and Consumer Sciences Education advisor as early as possible in the program.

Family and Consumer Sciences Coursework

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFS 100</td>
<td>Child and Family Studies Professions</td>
<td>1 cr</td>
</tr>
<tr>
<td>CFS 203</td>
<td>The Young Child</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Professional Education Core
Candidates must meet formal application and complete an interview for admission to the Teacher Education Program before taking all but the first of these courses:

EDUC 201 Development and Individual Differences 3 cr
EDUC 204 Families, Communities, Culture 3 cr
EDUC 301 Inquiring, Thinking, Knowing 3 cr
EDUC 302 Motivation and Management 3 cr
EDUC 309 Instructional Planning, Delivery and Assessment 6 cr
EDUC 311 Instructional Technology 3 cr
EDUC 401 Content Area Literacy 3 cr
CFS 332 Programs in Family and Consumer Science 3 cr
SPED 350 Creating Inclusive Classrooms 3 cr
CFS 495 Student Teaching: Family and Consumer Sciences Internship 7-14 cr

Professional-Technical Certification Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRD g401</td>
<td>Foundations of Professional-Technical Education</td>
<td>3 cr</td>
</tr>
<tr>
<td>HRD g444</td>
<td>Career Guidance and Special Needs in Professional-Technical Education</td>
<td>3 cr</td>
</tr>
<tr>
<td>HRD g468</td>
<td>Teaching Cooperative Education and School-to-Work</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Recommended Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFS 321</td>
<td>Families and American Society</td>
<td>3 cr</td>
</tr>
<tr>
<td>CFS 322</td>
<td>Building Positive Relationships</td>
<td>3 cr</td>
</tr>
<tr>
<td>CFS g471</td>
<td>Advanced Consumer Economics</td>
<td>3 cr</td>
</tr>
<tr>
<td>CFS g472</td>
<td>Teaching Consumer Economics</td>
<td>1-3 cr</td>
</tr>
<tr>
<td>CFS 494</td>
<td>Partnerships with Professionals</td>
<td>3 or 6 cr</td>
</tr>
<tr>
<td>ECON 202</td>
<td>Principles of Microeconomics</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Minor in Consumer Economics
Candidates receiving degrees in majors other than Family and Consumer Sciences may satisfy the requirements for a minor in Consumer Economics. Candidates interested in this minor should consult a Family and Consumer Sciences advisor.

Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFS g431</td>
<td>Family Resource Management</td>
<td>3 cr</td>
</tr>
<tr>
<td>CFS g470</td>
<td>Consumer Economics</td>
<td>3 cr</td>
</tr>
<tr>
<td>CFS g71</td>
<td>Advanced Consumer Economics</td>
<td>3 cr</td>
</tr>
<tr>
<td>ECON 201</td>
<td>Principles of Macroeconomics</td>
<td>3 cr</td>
</tr>
<tr>
<td>ECON 202</td>
<td>Principles of Microeconomics</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Choose two of the following (6 credits):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 201</td>
<td>Principles of Accounting</td>
<td>3 cr</td>
</tr>
<tr>
<td>ACCT 202</td>
<td>Principles of Accounting II</td>
<td>3 cr</td>
</tr>
<tr>
<td>CFS g472</td>
<td>Teaching Consumer Economics</td>
<td>3 cr</td>
</tr>
<tr>
<td>ECON 323</td>
<td>Economic History</td>
<td>3 cr</td>
</tr>
<tr>
<td>ECON 331</td>
<td>Money and Banking</td>
<td>3 cr</td>
</tr>
<tr>
<td>ECON 334</td>
<td>International Economics</td>
<td>3 cr</td>
</tr>
<tr>
<td>ECON 338</td>
<td>Public Finance</td>
<td>3 cr</td>
</tr>
<tr>
<td>MGT 261</td>
<td>Legal Environment of Organizations</td>
<td>3 cr</td>
</tr>
<tr>
<td>MGT g461</td>
<td>Business Law</td>
<td>3 cr</td>
</tr>
<tr>
<td>MKTG 325</td>
<td>Basic Marketing Management</td>
<td>3 cr</td>
</tr>
<tr>
<td>MKTG 327</td>
<td>Consumer Behavior</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Minor in Family and Consumer Sciences

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFS 203</td>
<td>The Young Child</td>
<td>3 cr</td>
</tr>
<tr>
<td>CFS 314</td>
<td>Interior Design and Housing Perspectives</td>
<td>3 cr</td>
</tr>
<tr>
<td>CFS 332</td>
<td>Programs in Family and Consumer Science</td>
<td>3 cr</td>
</tr>
<tr>
<td>ECON 331</td>
<td>Money and Banking</td>
<td>3 cr</td>
</tr>
<tr>
<td>ECON 334</td>
<td>International Economics</td>
<td>3 cr</td>
</tr>
<tr>
<td>ECON 338</td>
<td>Public Finance</td>
<td>3 cr</td>
</tr>
<tr>
<td>MKTG 325</td>
<td>Basic Marketing Management</td>
<td>3 cr</td>
</tr>
<tr>
<td>MKTG 327</td>
<td>Consumer Behavior</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Select one course from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFS 209</td>
<td>Early Childhood</td>
<td>3 cr</td>
</tr>
<tr>
<td>CFS 229</td>
<td>Textile Products</td>
<td>3 cr</td>
</tr>
<tr>
<td>CFS g435</td>
<td>Relationships Within Families</td>
<td>3 cr</td>
</tr>
<tr>
<td>CFS g470</td>
<td>Consumer Economics</td>
<td>3 cr</td>
</tr>
<tr>
<td>NTD 104</td>
<td>Foods</td>
<td>3 cr</td>
</tr>
<tr>
<td>NTD 104</td>
<td>Foods</td>
<td>3 cr</td>
</tr>
<tr>
<td>NTD 204</td>
<td>Meal Management</td>
<td>2 cr</td>
</tr>
<tr>
<td>NTD 239</td>
<td>Nutrition</td>
<td>3 cr</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.
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>
</tr>
</thead>
<tbody>
<tr>
<td>P E 357</td>
<td>Methods of Teaching</td>
<td></td>
</tr>
<tr>
<td>EDUC 204</td>
<td>Family, Community, Culture</td>
<td>3 cr</td>
</tr>
<tr>
<td>EDUC 215</td>
<td>Preparing to Teach with Technology</td>
<td>3 cr</td>
</tr>
<tr>
<td>EDUC 311</td>
<td>Instructional Technology</td>
<td>3 cr</td>
</tr>
<tr>
<td>EDUC 321</td>
<td>Integrated Language Arts Methods</td>
<td>3 cr</td>
</tr>
<tr>
<td>EDUC 322</td>
<td>Literature for Children across the Curriculum</td>
<td>3 cr</td>
</tr>
<tr>
<td>EDUC 330</td>
<td>Elementary Math Methods</td>
<td>3 cr</td>
</tr>
<tr>
<td>EDUC 331</td>
<td>Elementary Science Methods</td>
<td>3 cr</td>
</tr>
<tr>
<td>EDUC 401</td>
<td>Content Area Literacy</td>
<td>3 cr</td>
</tr>
<tr>
<td>EDUC 419</td>
<td>Developmental Literacy</td>
<td>3 cr</td>
</tr>
<tr>
<td>EDUC 460</td>
<td>Foundations of ESL</td>
<td>3 cr</td>
</tr>
<tr>
<td>CFS 493</td>
<td>Early Childhood Education: Student Teaching</td>
<td>7-14 cr</td>
</tr>
</tbody>
</table>

Additional Coursework leading to Idaho Blended ECE/ECSE Certificate Emphasis:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFS 207</td>
<td>The Young Child</td>
<td>3 cr</td>
</tr>
<tr>
<td>CFS 440</td>
<td>Partnerships with Families of Young Children</td>
<td>3 cr</td>
</tr>
<tr>
<td>SPED 424</td>
<td>Assessment in Special Education</td>
<td>3 cr</td>
</tr>
<tr>
<td>SPED 429</td>
<td>Strategies for Severe Disabilities</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Additional Coursework leading to Idaho Standard K-8 Certificate Emphasis:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFS 435</td>
<td>Family as Developmental</td>
<td>3 cr</td>
</tr>
<tr>
<td>MUSC 233</td>
<td>Music Methods</td>
<td>3 cr</td>
</tr>
<tr>
<td>EDUC 201</td>
<td>Development and Individual Differences</td>
<td>3 cr</td>
</tr>
<tr>
<td>EDUC 235</td>
<td>Introduction to Elementary Art</td>
<td>3 cr</td>
</tr>
<tr>
<td>EDUC 301</td>
<td>Inquiry, Thinking, Knowing</td>
<td>3 cr</td>
</tr>
<tr>
<td>EDUC 302</td>
<td>Motivation and Management</td>
<td>3 cr</td>
</tr>
<tr>
<td>EDUC 309</td>
<td>Planning, Delivery and Instruction</td>
<td>6 cr</td>
</tr>
<tr>
<td>EDUC 336</td>
<td>Social Studies Methods</td>
<td>3 cr</td>
</tr>
<tr>
<td>SPED 330</td>
<td>The Exceptional Child</td>
<td>3 cr</td>
</tr>
<tr>
<td>SPED 350</td>
<td>Creating Inclusive Classrooms</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Child and Family Studies Courses

CFS 100 Child and Family Studies Professions 1 credit. 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. F

CFS 109 Introduction to Early Childhood Professions 2 credits. Foundations and professional careers in early childhood education and early childhood special education. S

CFS 120 Personal Economics 3 credits. 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 202 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

CFS 203 The Young Child 3 credits. Study and observation of typical and atypical development from conception to age eight. Focus on interaction and balance among developmental domains and influence of societal contexts. Field experience required. PREREQ: EDUC 215. PREREQ OR COREQ: CIS 101 or equivalent competency. F

CFS 207 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 203 or permission of instructor.

CFS 209 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. PREREQ: CFS 203 or permission of instructor. S

CFS 229 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: CHEM 100, ART 100 or permission of instructor. S

CFS 314 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. F

CFS 318 Leadership Issues Seminar 1 credit. Consideration of issues related to the transition from candidate to professional. Insight into successful functioning as a team member and leader in the profession. PREREQ: Junior standing or permission of instructor. S

CFS 321 Families and American Society 3 credits. American families in social-historical contexts. Contemporary issues confronting families as social institutions and examination of impact of family interaction dynamics. Cross-listed as SOC 321. PREREQ: SOC 101 or permission of instructor. F

CFS 322 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 101 and PSYC 101. D

CFS 332 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. D

CFS 373 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 209 and admission to Teacher Education Program or permission of instructor. COREQ: CFS 435. F

CFS 374 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 373 or permission of instructor. S

CFS 375 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 374 or permission of instructor. S

CFS g400 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 g401 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 to age eight. AF

CFS 411 Concepts and Practices in Blended Early Childhood Programs I 3 credits. Synthesis of assessment and curriculum practicises which support development and learning for all young children. Field experiences required. PREREQ: CFS 373 or permission of instructor. F

CFS 412 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 411 or permission of instructor. S

CFS 429 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. PREREQ: SOC 100, PSYC 100 or permission of instructor. F

CFS g431 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 g470 or permission of instructor. S

CFS g435 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. F

CFS 440 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 373 or permission of instructor. S

CFS g470 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. F

CFS g471 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 g470 or permission of instructor. S

CFS g472 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 g471 or permission of instructor. D

CFS 481 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 490 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 493 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 494 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 g457 or HRD g455, and permission of instructor. D

CFS 495 Family and Consumer Sciences Student Teaching Internship 7-14 credits. Candidates assume instructional and management responsibilities in supervised settings. PREREQ: Admission to Teacher Education Program and permission of instructor. Graded S/U. D

Teacher Education Program

Admission to Teacher Education Program

Candidates must make formal application and complete an interview for admission to the Teacher Education Program. Application for admission and the scheduling of the admission interview are completed through forms available in the College of Education Advising Center of the College of Education. Standards for admission are approved and implemented by the Teacher Education Committee, a committee representing all Idaho State University teacher education programs.

Candidates in teacher education are under the same general probationary policy as the rest 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 Teacher Education Program standards.

Application for admission to teacher education is made on forms provided in the College of Education Advising Center following the completion of at least 26 credits hours of college work. Candidates may not register for core courses numbered 300 and above until admittance to teacher education is achieved. Candidates who have been denied admittance to teacher education may reapply when deficiencies have been met. 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” or higher in at least two of the following areas with a grade of no lower than “C” in any of the three areas:
   - ENGL 101 (English Composition) or ENGL 102 (Critical Reading and Writing) or College of Education approved equivalent.
   - COMM 101 (Principles of Speech) or College of Education approved equivalent.
   - MATH: Any of the following, or College of Education approved equivalent:
Elementary

a) 108 Intermediate Algebra  
b) 143 College Algebra  
c) 256 Structure of Arithmetic for Elementary School Teachers  
d) 257 Structure of Geometry and Probability for Elementary School Teachers

Secondary

a) 123 Mathematics in Modern Society  
b) 127 The Language of Mathematics  
c) 130 Finite Mathematics  
d) 160 Applied Calculus  
e) 170 Calculus I  
f) 253 Introduction to Statistics

3. A background check as outlined in EDUC 201.
4. A grade of “C” or higher in the following courses:
   EDUC 215 Preparing to Teach with Technology or equivalent credit AND EDUC 201 Development and Individual Difference OR CFS 203 The Young Child
5. Presentation of minimum scores achieved on the Praxis I Academic Skills Assessments:
   Reading = 172; Writing = 174; Mathematics = 169.
6. Submission of Professional Portfolio entry completed as course requirement for EDUC 201 or CFS 203.
7. Recommendation forms completed by EDUC 201 or CFS 203 instructor.
8. Submission of signed affidavit indicating awareness of Idaho Code pertaining to teacher certification requirements.
9. Successful completion of the Teacher Education Program Admission Interview.

Denial of Admission to Teacher Education

Candidates who have been denied admission to teacher education may reapply; however, they must meet the standards for admission in place at the time of their reapplication to attain admission.

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 elementary and secondary schools.

The internship is scheduled for a full semester. Candidates should not plan to enroll in any additional coursework during the internship semester. All programs other than Music Education require 14 credits of internship. Some internships may consist of two 7 credit blocks, and others may be a single 14 credit block. The Music Education program requires 7 or 14 credits to be determined in consultation with the Music Department.

Admission to Internship

A candidate’s application for a student teaching internship must be filed 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 charge for late applications, a $25 charge for change of placement, and a $25 charge for reapplication. Applications for all teaching internships may be obtained from the Office of Field Experiences.

The application must be signed by the advisor(s) and the Director of the Office of Field Experiences.

Eligibility Criteria

The candidate must meet the following criteria for enrollment in the internship (EDUC 492, 494, 495, or 496, B ED 496, CFS 493 or 495, P E 495, SPED 495):

1. Completion of all requirements unless specifically approved by petition.
2. Completion of at least 67% of the professional education core credits from Idaho State University.
3. A 2.75 grade point average overall including all transfer credits or credits earned in a previous degree program.
4. 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” or higher in all courses used for the professional education core.

5. A grade point average of 2.5 or higher in all courses in the Elementary Education Required Courses.
6. 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.
7. A grade of “C” or higher in ENGL 102 (Critical Reading and Writing) or College of Education approved equivalent course.
8. Must be admitted to the teacher education program.
9. Successful completion of the Praxis II Content Test in each area being recommended for certification. Qualifying scores for each test are available in the Teacher Education Office and the College of Education Dean’s Office.
10. For elementary, special education, and early childhood candidates successful completion of two of the three Idaho Comprehensive Literacy Assessment standards. Qualifying scores for the ICLA are available in the College of Education Advising Center.

Correspondence Courses

No candidate is permitted to enroll in a correspondence course during the semester in which s/he is completing the internship without written permission from the Director of the Office of Field Experiences.

Elementary Education

The emerging elementary education professional is expected to:

1. --select general education goal 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,
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. Completion of General Education requirements of the University.

In order to meet the State of Idaho Elementary teaching certification requirements and the standards generated by the “No Child Left Behind” legislation, the College of Education prescribes the following set of courses to meet the General Education requirements of the University:

All Elementary Education majors will complete a minimum of the Bachelor of Science (B.S.) [goals 1-7, 9, 11, and 12] option of the General Education Requirements. Candidates wishing to earn a Bachelor of Arts (B.A.) must meet the requirements for the B.S., but could add goal 8, and either 10A or 10B.

**Required Goal Courses**

Goal 1: ENGL 101 and ENGL 102;
Goal 2: COMM 101;
Goal 3: MATH 256 and MATH 257;
Goal 4: BIOL 100 and 100L;
Goal 5: PHYS 100;
Goal 6: ART 100, ART 101, ART 102, MUSC 100, or MUSC 106; MUSC 108;
Goal 7: ENGL 110;
Goal 8: HIST 118;
Goal 9: POLS 101;
Goal 12: SOC 101

**Additional course work in content areas is required:**

- **English**
  - ENGL 101 and ENGL 102: 3 cr

- **History**
  - HIST g423 or GEOL/HIST/POLS g471: 3 cr
  - Science (GEOL 101 and 101L): 4 cr

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**

(please read course descriptions for prerequisites and corequisites)

- **EDUC 201** Development and Individual Differences: 3 cr
- **EDUC 204** Families, Communities, Culture: 3 cr
- **EDUC 301** Inquiring, Thinking, Knowing: 3 cr
- **EDUC 302** Motivation and Management: 3 cr
- **EDUC 309** Instructional Planning, Delivery, and Assessment: 6 cr
- **EDUC 311** Instructional Technology: 3 cr
- **SPED 350** Elementary Education: Student Teaching Internship: 7-14 cr

**Elementary Education Required Courses**

- **EDUC 235** Introduction to Elementary Art Methods and Materials: 1 cr
- **EDUC 321** Integrated Language Arts Methods: 3 cr
- **EDUC 322** Literature for Children across the Curriculum: 3 cr
- **EDUC 330** Elementary Mathematics Methods: 3 cr
- **EDUC 331** Elementary Science Methods: 3 cr
- **EDUC 336** Social Science Methods: 3 cr
- **EDUC g419** Developmental Literacy: 3 cr
- **H E 211** Health Education Methods: 1 cr
- **MATH 256** Structure of Arithmetic for Elementary School Teachers: 3 cr
- **MATH 257** Structure of Geometry and Probability for Elementary School Teachers: 3 cr
- **MUSC 233** Music Methods for Elementary School Teachers: 2 cr
- **P E 357** Methods of Teaching Elementary Physical Education: 3 cr

**History Electives – 6 credits from Categories V and VI**

Choose two courses from the lists of upper division History elective courses in Categories V and VI in the Bachelor of Arts in History listing in the Arts and Sciences section of this catalog.

**Mathematics (21 cr)**

- **MATH 123** Mathematics in Modern Society: 3 cr
- **MATH 127** Language of Mathematics: 3 cr
- **MATH 130** Finite Mathematics: 3 cr
- **MATH 144** Trigonometry: 2 cr
- **MATH 170** Calculus I: 4 cr
- **MATH 240** Linear Algebra: 3 cr
- **MATH 253** Introduction to Statistics: 3 cr

**Biology (22 cr)**

- **BIOL 101, 101L** Biology I, and Lab: 4 cr
- **BIOL 102, 102L** Biology II, and Lab: 4 cr
- **BIOL 209, 209L** General Ecology and Lab: 4 cr
- **BIOL 302** Anatomy and Physiology: 4 cr
- **BIOL 213** Fall Flora: 2 cr
- **BIOL 214** Spring Flora: 2 cr
- **BIOL 240** Upper Division BIOL Electives: 4 cr

**Geology (23 cr)**

- **GEOL 115** Physical Geography: 4 cr
- **GEOL 122** Rocks and Stars: 3 cr
- **GEOL 201** Rocks, Ralls, and Trails: 1 cr
- **GEOL 202** Historical Geology: 3 cr
- **GEOL 210** Earth in Space and Time: 3 cr
- **GEOL 313** Earth Materials I: 3 cr
- **GEOL 314** Earth Materials II: 3 cr
- **GEOL 422** Planetary Geology: 3 cr

**Double Major**

Candidates in the Elementary Education program may choose to complete a double major by taking the following Special Education requirements in addition to the Elementary Major:

- **SPED 270** Field Work in Special Education: 2 cr
- **SPED 330** The Exceptional Child: 3 cr
- **SPED 334** Classroom Behavior Management: 3 cr
- **SPED g423** Designing Instruction: 3 cr
- **SPED g424** Assess Procedures in Special Education: 3 cr
- **SPED g427** Precision Teaching: 3 cr
- **SPED g429** Strategies: Severe Disabilities: 3 cr
- **SPED g432** Direct Instruction Systems: 3 cr
- **SPED g438** Policies and Procedures in Special Education: 3 cr
- **SPED g446** Secondary Special Education: 3 cr

**Plus three credits of Electives selected from the following:**

- **P E g494** Special Physical Activity: 3 cr
- **PSYC 332** Psychology of Adolescence: 3 cr
- **PSYC 445** Psychology of Learning: 3 cr
- **SOC 231** Juvenile Delinquency: 3 cr
- **SPED g426** Assessment: Severe Disabilities: 3 cr
- **SPED g440** Biomedical Aspects of Physical Disability: 2 cr
- **SPED g443** Autism: 2 cr
- **SPED g448** Pre-Practicum, Moderately Handicapped: 1-3 cr
Secondary Teacher Education

Summary of Requirements for a Bachelor of Arts or a Bachelor of Science degree in Secondary Education:
A minimum of 128 semester credit hours to include:

1. Completion of general university requirements (see Academic Information and Graduation Requirements of the university).
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
EDUC 201 Development and Individual Differences 3 cr
EDUC 204 Families, Communities, and Culture 3 cr
EDUC 301 Inquiring, Thinking, Knowing 3 cr
EDUC 302 Instructional Planning, Delivery, and Assessment 6 cr
EDUC 309 Instructional Technology 3 cr
SPED 350 Creating Inclusive Classrooms 3 cr
EDUC 496 Secondary Education: Student Teaching Internship 7-14 cr

Required Secondary Education Course
EDUC 401 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 teacher who exemplify the following guiding principles. The Secondary Educator:

1. Is a content area expert able to represent subject matter in multiple ways to ensure depth of student understanding.
2. Ensures curriculum alignment with state and national student achievement standards.
3. Uses all appropriate tools and techniques of teaching to guide and assess student learning.
4. Provides consistent opportunities for all students to learn and adapts instruction to meet the needs of diverse learners.
5. Fosters family and community relationships that promote student learning.

Biological Sciences Major
BIOL 101/101L Biology I and Lab 4 cr
BIOL 102/102L Biology II and Lab 4 cr
BIOL 206 Cell Biology 3 cr
BIOL 207 Cell Biology Laboratory 1 cr
BIOL 209 General Ecology 4 cr
BIOL 221 Introductory Microbiology 3 cr
BIOL 223 Introductory Microbiology Laboratory 1 cr
BIOL 310 Invertebrate Zoology 4 cr
BIOL 358 Genetics 3 cr
BIOL g413 Biology Teaching Methods 3 cr
BIOL g417 Organic Evolution 3 cr
BIOL g491 Seminar 1 cr
BIOL g492 Seminar 1 cr
MATH 160 Applied Calculus 3 cr
MATH 253 Introduction to Statistics 3 cr

Plus one of the following botany course options:
BIOL 213-214 Spring and Fall Flora* 4 cr
BIOL g404 Plant Physiology 4 cr
BIOL g405 Plant Anatomy 3 cr
BIOL g406 Plant Diversity and Evolution 3 cr
BIOL g408 Plant Ecology 3 cr
BIOL g412 Systematic Botany* 4 cr
* Recommended course is BIOL 412 instead of BIOL 213 or 214.
BIOL g531 is also a recommended elective.

Biological Sciences Minor
BIOL 101/101L Biology I and Lab 4 cr
BIOL 102/102L Biology II and Lab 4 cr
BIOL 221 Introductory Microbiology 3 cr
BIOL 223 Introductory Microbiology Laboratory 1 cr
BIOL (Botany—a minimum of 2 credits are required for teaching certification) 2-4 cr
BIOL g413 Biology Teaching Methods 3 cr
MATH 160 Applied Calculus 3 cr
MATH 253 Introduction to Statistics 3 cr

Business Education Major
ACCT 201 Principles of Accounting I 3 cr
B ED 102 Intermediate Keyboarding 3 cr

Select from the following:
B ED 310 Microcomputers in Business Education 3 cr
B ED 320 Clerical Procedures 2 cr
B ED 330 Advanced Technology in Business Education 3 cr
B ED 332 Methods in Business Education 3 cr
CFS g470 Consumer Economics 3 cr
HRD g401 Foundations of Occupational Education 3 cr
HRD g444 Career Guidance and Special Needs in Professional-Technical Education 3 cr
HRD g468 Teaching Cooperative Education and School-to-Work 3 cr

Chemistry Major
CHEM 111,111L General Chemistry I, and Lab 5 cr
CHEM 112,112L General Chemistry II, and Lab 4 cr
CHEM 211 Inorganic Chemistry I 3 cr
CHEM 213 Inorganic Chemistry I Lab 1 cr
CHEM 232 Quantitative Analysis 2 cr
CHEM 234 Quantitative Analysis Lab 2 cr
CHEM g400 Practicum in Physical Science 2 cr

Chemistry Minor
CHEM 111,111L General Chemistry I, and Lab 5 cr
CHEM 112,112L General Chemistry II, and Lab 4 cr
CHEM 211 Inorganic Chemistry I 3 cr
CHEM 213 Inorganic Chemistry I Lab 1 cr
CHEM g400 Practicum in Physical Science 2 cr

Biological Sciences Minor
BIOL 101/101L Biology I and Lab 4 cr
BIOL 102/102L Biology II and Lab 4 cr
BIOL 221 Introductory Microbiology 3 cr
BIOL 223 Introductory Microbiology Laboratory 1 cr
BIOL (Botany—a minimum of 2 credits are required for teaching certification) 2-4 cr
BIOL g413 Biology Teaching Methods 3 cr
MATH 160 Applied Calculus 3 cr
MATH 253 Introduction to Statistics 3 cr

Chemistry Minor
CHEM 111,111L General Chemistry I, and Lab 5 cr
CHEM 112,112L General Chemistry II, and Lab 4 cr
CHEM 211 Inorganic Chemistry I 3 cr
CHEM 213 Inorganic Chemistry I Lab 1 cr
CHEM g400 Practicum in Physical Science 2 cr

Communication and Rhetorical Studies Major
M C 119 Introduction to Mass Media 3 cr
COMM 208 Group Communication 3 cr
COMM 305 Argumentation and Debate 3 cr
COMM g436 Rhetorical Criticism 3 cr
COMM g437 Rhetorical Theory 3 cr
COMM g441 Interpersonal Communication 3 cr
THEA 111 Stagecraft I 3 cr
THEA 118 Oral Interpretation 3 cr
THEA 251 Beginning Acting 3 cr
THEA 331 Materials and Methods for High School Speech Arts 3 cr
One 400 level elective in Speech 3 cr

Approved electives in Chemistry 12 cr
Approved electives in Chemistry 7 cr

Required Secondary Education Course
SPED g480 Seminar in Special Education 1 cr
SPED g491 Seminar 1-3 cr
SPED g498 Advanced Field Work 1-3 cr
Approved electives in Economics 12 cr
ECON 323 Economic History 3 cr
ECON 302 Microeconomic Theory 3 cr
ECON 301 Macroeconomic Theory 3 cr
Approved electives in Economics 12 cr

English Major
ENG 211 Introduction to Literary Analysis 3 cr
ENG 267 or 268 Survey of British Literature I or II 3 cr
ENG 277 or 278 Survey of American Literature I or II 3 cr
ENG 280 Grammar and Usage 3 cr
ENG 281 Introduction to Language Studies 3 cr
ENG 301 Writing About Literature 3 cr
ENG 433* Methods: Teaching English 3 cr
ENG 491 Senior Seminar 3 cr

One of the following:
ENG g472 Proseminar in a Major Literary Figure 3 cr
ENG g473 Chaucer 3 cr
ENG g474 Milton 3 cr
ENG g476 Shakespeare 3 cr

Plus one additional course from the following:
ENGL 257 or 258 Survey of World Literature I or II 3 cr
ENGL 267 or 268 Survey of British Literature I or II 3 cr
ENGL 277 or 278 Survey of American Literature I or II 3 cr
Approved electives (6 cr must be upper division) 9 cr
* ENG 433 must be completed before Student Teaching Internship.

English Minor
ENG 211 Introduction to Literary Analysis 3 cr
ENG 267 or 268 Survey of British Literature I or II 3 cr
ENG 277 or 278 Survey of American Literature I or II 3 cr
Approved electives (6 cr must be upper division) 9 cr

Electives (8 credits minimum)
Choose two courses from:
ANTH/ENGL/LANG 107 Nature of Language 3 cr
ANTh/LANG g455 Linguistic Analysis I 3 cr

Family and Consumer Sciences Minor
CFS 203 The Young Child 3 cr
CFS 314 Interior Design and Housing Perspectives 3 cr
CFS 332 Programs in Family and Consumer Sciences 3 cr
CFS 429 Social and Psychological Aspects of Clothing 3 cr
CFS g431 Family Resource Management 3 cr
EDUC 204 Family Resource Management 3 cr
NFD 104 Foods 3 cr

Select one course from the following:
CFS 203 Early Childhood Environments 3 cr
CFS 229 Textile Products 3 cr
CFS g435 Relationships Within Families 3 cr
CFS g470 Consumer Sciences 3 cr
NFD 204 Meal Management 2 cr
NFD 239 Nutrition 3 cr
This is a non-certification program; please consult an advisor.

French Major
FREN 301-302 French Conversation and Composition 6 cr
and their prerequisites or equivalent high school courses.
LANG g437 The Teaching of Foreign Languages 3 cr
Upper division electives in French 12 cr
(must be approved by the Foreign Languages Department and the College of Education).

French Minor
FREN 201-202 Intermediate French 8 cr
(LANG g437 The Teaching of Foreign Languages 3 cr
Approved electives in French 12 cr
(must be approved by the Foreign Languages Department and the College of Education).
Geology Major (at least 30 cr)

Must be accompanied by a Science minor of 20 credits.

GEOL 100,100L The Dynamic Earth, and Lab 4 cr OR
GEOL 101 Physical Geology 3 cr
GEOL 110* Physical Geology for Scientists Lab 1 cr
GEOL 115,115L Physical Geography, and Lab 4 cr
GEOL 210 Earth in Space and Time 3 cr
GEOL 400 Geology Teaching Practicum 1 cr
GEOL 406 Environmental Geology 3 cr
GEOL PHYS 410 Science in American Society 2 cr
GEOL g471 Historical Geography of Idaho 4 cr

Plus approved electives from the following, to reach a total of at least 30 credits:

GEOL 122 Rocks and Stars 3 cr
GEOL 201 Rocks, Rails and Trails 1 cr
GEOL 202 Historical Geology 3 cr
GEOL 313 Earth Materials I 3 cr
GEOL g415 Quaternary Geology 4 cr
GEOL g417 General Soils 3 cr
GEOL g422 Planetary Geology 3 cr
GEOL g430 Principles of Hydrogeology 3 cr
GEOL g431 Geobiology and the History of Life 4 cr
GEOL g451 Sedimentation Stratigraphy 4 cr
GEOL g456 Geology of Idaho 2 cr
GEOL g458 Geology of North America 3 cr
GEOL g491 Seminar 1 cr

* Note: Candidates must take GEOL 110 even if they have taken the lab for GEOL 100 or GEOL 101.

Geology Minor (at least 22 cr)

GEOL 100,100L The Dynamic Earth, and Lab 4 cr OR
GEOL 101 Physical Geology 3 cr
GEOL 110* Physical Geology for Scientists Lab 1 cr
GEOL 115,115L Physical Geography 4 cr
GEOL 210 Earth in Space and Time 3 cr
GEOL 400 Geology Teaching Practicum 1 cr
GEOL PHYS 410 Science in American Society 2 cr

Plus approved electives from the following, to reach a total of at least 22 credits:

GEOL 122 Rocks and Stars 3 cr
GEOL 202 Historical Geology 3 cr
GEOL g406 Environmental Geology 3 cr
GEOL g422 Planetary Geology 3 cr
GEOL g456 Geology of Idaho 2 cr
GEOL g458 Geology of North America 3 cr
GEOL g471 Historical Geography of Idaho 4 cr

* Note: Candidates must take GEOL 110 even if they have taken the lab for GEOL 100 or GEOL 101.

Health Education Teaching Major

Prerequisites:
Admission to Teacher Education Program
Admission to Health Education Program

Health Education Core:
H E 200 Promoting Wellness 2 cr
H E 221 Introduction to Health Education 1 cr
H E 340, 340L Fitness and Wellness Programs, and Lab 3 cr
H E 342 Stress and Emotional Health 3 cr
H E g410 Behavior Change Theory and Application 3 cr
H E 420 Health Program Planning and Implementation 3 cr
H E 435 Health Program Evaluation and Research 3 cr

Plus the following School Health Emphasis Courses:
H E 430 Curriculum and Methods in Health Education 3 cr
H E g442 Environmental Health and Health Education 2 cr
H E g443 Substance Abuse and Health Education 2 cr
H E g445 Human Sexuality and Health Education 2 cr

TOTAL: 33 cr

Health Education Teaching Minor

Prerequisites:
Admission to Teacher Education Program
Admission to Health Education Program

Required Courses:
H E 200 Promoting Wellness 3 cr
H E 221 Introduction to Health Education 3 cr
H E 340, 340L Fitness/Wellness Programs, and Lab 3 cr
H E 342 Stress and Emotional Health 3 cr
H E 430 Curriculum and Methods in Health Education 3 cr

Plus two of the following three courses:
H E g442 Environmental Health and Health Education 3 cr
H E g443 Substance Abuse and Health Education 3 cr
H E g445 Human Sexuality and Health Education 3 cr

TOTAL: 21 cr

History Minor

Category I: World Regions (9 credits, no more than 3 of which must be in HIST 101 or HIST 102)
HIST 101 Foundations of Europe 3 cr
HIST 102 Modern Europe 3 cr
HIST 249 World Regional Geography 3 cr
HIST 251 Latin America 3 cr
HIST 252 East Asian History 3 cr
HIST 254 Middle Eastern Civilization 3 cr
HIST 255 African History and Culture 3 cr

Note: Candidates may use one of the above courses to satisfy Goal 10A of the General Education Requirements.

Category II: Research Skills (6 credits)
Candidates must take both of the following courses sequentially.
HIST 291 The Historian's Craft 3 cr
HIST g491 Seminar 3 cr

Category III: Course for Teachers
HIST g418 United States History for Teachers 3 cr

Category IV: Upper Division U.S. History: 6 credits
Choose one 300-level course and one 400-level course from the Category IV list of upper division History elective courses in the Bachelor of Arts in History in the Arts and Sciences section of this catalog.

Category V: Upper Division World, Comparative and Non-U.S. History: 6 credits
Choose two courses from the Category V list of upper division History elective courses in the Bachelor of Arts in History in the Arts and Sciences section of this catalog.

Category VI: Electives: 6 credits
Choose two courses from the Category IV, V and VI lists of upper division History elective courses in the Bachelor of Arts in History in the Arts and Sciences section of this catalog.

History Major

Graduation Requirements
In addition to the general requirements for the Bachelor of Arts Degree, 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 118 and g418, plus an additional course). In addition, POLS 101 fulfills Goal 11 and HIST 118 fulfills Goal 9 of the General Education Requirements.

Category I: World Regions: 6 credits
HIST 101 Foundations of Europe 3 cr
HIST 102 Modern Europe 3 cr
HIST 249 World Regional Geography 3 cr
HIST 251 Latin America 3 cr
HIST 252 East Asian History 3 cr
HIST 254 Middle Eastern Civilization 3 cr
HIST 255 African History and Culture 3 cr

Category III: Course for Teachers
HIST g418 United States History for Teachers 3 cr

Category IV: Upper Division U.S. History: 6 credits
Choose one 300-level course and one 400-level course from the Category IV list of upper division History elective courses in the Bachelor of Arts in History in the Arts and Sciences 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 Sciences section of this catalog.

Mass Communication Minor
ENGL 433 Methods: Teaching English 3 cr (highly recommended)
MC 119 Introduction to Mass Media 3 cr
MC 121,121L Reporting and Newswriting, and Lab 4 cr
MC 230,230L Introduction to Photography, and Lab 4 cr
MC 325 Editing for Print Media 4 cr
Approved electives selected from:
MC 270 Journalism History 3 cr
MC 290 American Broadcasting 3 cr
MC 350 Cable Television and New Media Technology 3 cr
MC 440 Media Law and Ethics 3 cr
MC g452 Mass Communication and Society 3 cr

Mathematics Major
CS/ENGR 181 Computer Science and Programming I 3 cr
MATH 170 Calculus I 4 cr
MATH 175 Calculus II 4 cr
MATH 230 Linear Algebra 3 cr
MATH 275 Calculus III 4 cr
MATH 287 Foundations of Mathematics 3 cr
MATH 326 Elementary Analysis 3 cr
MATH 343 Modern Geometry I 3 cr
MATH 352 Introduction to Probability 3 cr
MATH g407 Modern Algebra I 3 cr
And one of the following:
MATH 327 Vector Analysis 3 cr
MATH g408 Modern Algebra II 3 cr
MATH 444 Modern Geometry II 3 cr

Mathematics Minor
CS/ENGR 181 Computer Science and Programming I 3 cr
MATH 170 Calculus I 4 cr
MATH 175 Calculus II 4 cr
MATH 230 Linear Algebra 3 cr
MATH 275 Calculus III 4 cr
MATH 287 Foundations of Mathematics 3 cr
MATH 343 Modern Geometry I 3 cr
MATH 352 Introduction to Probability 3 cr
And one of the following:
MATH 326 Elementary Analysis 3 cr
MATH g407 Modern Algebra I 3 cr
MATH 444 Modern Geometry II 3 cr

Music Education
See Bachelor of Music Education degree program (K-12 certification) for requirements.

Physical Education Major
PE 222 First Aid, CPR and Sport Safety 3 cr
PE 223 Foundations of Physical Education and Sport 3 cr
PE 235 Activity Performance Techniques I 3 cr
PE 236 Activity Performance Techniques II 3 cr
PE 237 Activity Performance Techniques III 3 cr
PE 243 Anatomical Foundations of Human Activity 3 cr
PE 281 Practical Outdoor Skills 1 cr
PE 300 Movement Theory and Motor Development 3 cr
PE 301, 301L Physiology of Exercise, and Lab 3 cr
PE 302, 302L Biomechanics, and Lab 3 cr
PE 322 Introduction to Sport Psychology 3 cr
PE 357 Methods of Teaching Elementary Physical Education 3 cr
PE 362 Tests and Measurements in Physical Education 3 cr
PE 364 Introduction to Sport Law 3 cr
PE 370 Care and Prevention of Athletic Injuries 3 cr
PE 437 Methods of Teaching Secondary Physical Education 3 cr
PE 475 Adapted Physical Activity 3 cr
PE g494 Aquatics (consult with advisor) 1 cr
In ADDITION: Candidate must present a current Red Cross First Aid and CPR Card to advisor at the time of graduation.

Physics Major
PHYS 152-153 Descriptive Astronomy and Laboratory 4 cr
PHYS 211-212* Engineering Physics 8 cr
PHYS 213-214 Engineering Physics Lab 2 cr
PHYS 301 Modern Physics 3 cr
PHYS 400 Practicum in Physical Science 2 cr
PHYS g406 Advanced Modern Physics 3 cr
PHYS/GEOL g410 Science in American Society 2 cr
Approved electives in Physics 8 cr
* Calculus is required for PHYS 211-212.
** MATH 360 is required for PHYS 301

Physics Minor
PHYS 152-153 Descriptive Astronomy and Laboratory 4 cr
PHYS 211-212* Engineering Physics 8 cr
PHYS 213-214 Engineering Physics Lab 2 cr
PHYS 301 Modern Physics 3 cr
PHYS 400 Practicum in Physical Science 2 cr
PHYS/GEOL g410 Science in American Society 2 cr
Approved electives in Physics 4 cr
* Two semesters of calculus are required for PHYS 212.

Political Science Major
Credits selected from core curriculum 24 cr
(excluding POLS 460)
HIST 118 U.S. History and Culture 3 cr
HIST g418 U.S. History for Teachers 3 cr

Political Science Minor
HIST 118 U.S. History and Culture 3 cr
HIST g418 U.S. History for Teachers 3 cr
POLS 101 Introduction to American Government 3 cr
POLS 313 Introduction to Political Philosophy 3 cr
POLS 331 Comparative Politics: Framework for Analysis 3 cr
POLS g403 The Presidency OR 3 cr
POLS g404 The Legislative Process 3 cr
One course selected from:
POLS g401 Political Parties and Interest Groups 3 cr
POLS g427 Voting and Public Opinion 3 cr
POLS g443 Constitutional Law 3 cr

Psychology Minor
PSYC 101 Intro to General Psychology I 3 cr
PSYC 227 Basic Statistics 3 cr
PSYC 228 Introduction to the Theory of Measurement and Test Construction 3 cr
PSYC 303 Experimental Psychology 4 cr
Approved electives in Psychology 9 cr

Russian Minor
RUSS 201-202 Intermediate Russian OR equivalent 8 cr
LANG g437 The Teaching of Foreign Languages 3 cr
Approved electives in Russian 12 cr
(required must be approved by the Foreign Languages Department and the College of Education).

Social Science Major
Required prerequisite foundational courses which also satisfy the General Education requirements:
ECON 201 Principles of Macroeconomics 3 cr
ECON 202 Principles of Microeconomics 3 cr
HIST 102 Modern Europe 3 cr
HIST 118 U.S. History and Culture 3 cr
POLS 101 Introduction to American Government 3 cr
PSYC 101 Introduction to General Psychology 3 cr
SOC 101 Introduction to Sociology 3 cr

Required Courses
ECON 323 Economic History 3 cr
EDUC 336 Social Science Methods 3 cr
HIST 249 World Regional Geography 3 cr
PSYC 301 Abnormal Psychology 3 cr
SOC 248 Social Diversity 3 cr
SOC g62 Constitutional Law 3 cr

One course selected from:
POLS 308 State and Local Government 3 cr
POLS 326 Recent American Foreign Policy 3 cr
POLS g401 Political Parties and Interest Groups 3 cr
POLS g403 The Presidency 3 cr
POLS g404 The Legislative Process 3 cr
POLS g411 American Political Theory 3 cr
POLS g443 Constitutional Law 3 cr

One course selected from:
HIST g418 U.S. History for Teachers 3 cr
HIST g423 Idaho History 3 cr

One course selected from:
PSYC 227 Basic Statistics 3 cr
PSYC 310 Applied Techniques 3 cr
SOC 206 Sociological Methods 3 cr
SOC 207 Social Statistics 3 cr

Social Science Minor
ECON 201 Principles of Macroeconomics 3 cr
ECON 202 Principles of Microeconomics 3 cr
HIST 102 Modern Europe 3 cr
HIST 118 U.S. History and Culture 3 cr
HIST 249 World Regional Geography 3 cr
POLS 101 Introduction to American Government 3 cr
PSYC 101 Introduction to General Psychology 3 cr
SOC 101 Introduction to Sociology 3 cr
SOC 248 Social Diversity 3 cr

One course in non-U.S. History or one course selected from:
ANTH 100 General Anthropology 3 cr
Spanish Minor
SPAN 201-202 Intermediate Spanish (8 cr)
LANG g437 The Teaching of Foreign Languages (3 cr)
Approved electives in Spanish (12 cr) (must be approved by the Foreign Languages Department and the College of Education).

Special Education Major
A teaching major in secondary education is also required. For initial certification in special education, SPED 495, Special Education: Student Teaching Internship (7-14 cr) is required in addition to the 30 credits.

Sociology Major
SOC 101 Introduction to Sociology (3 cr)
SOC 102 Social Problems (3 cr)
SOC 206 Sociological Methods (3 cr)
SOC 231 Juvenile Delinquency (3 cr)
SOC 248 Social Diversity (3 cr)
SOC 301 Classical Social Theory (3 cr)
SOC g462 Social Stratification (3 cr)

Elections selected from:
SOC 207 Social Statistics (3 cr)
SOC 321 Families and American Society (3 cr)
SOC 335 Demography and Human Ecology (3 cr)
SOC g403 Contemporary Sociological Theory (3 cr)
SOC g408 Advanced Sociological Methods (3 cr)
SOC g413 Mind, Body and Society (3 cr)
SOC g431 Criminology (3 cr)
SOC g505 Developing Societies (3 cr)

Sociology Minor
SOC 101 Introduction to Sociology (3 cr)
SOC 102 Social Problems (3 cr)
SOC 206 Sociological Methods (3 cr)
SOC 301 Classical Social Theory (3 cr)

Elections selected from:
SOC 207 Social Statistics (3 cr)
SOC 231 Juvenile Delinquency (3 cr)
SOC 248 Social Diversity (3 cr)
SOC 321 Families and American Society (3 cr)
SOC 335 Demography and Human Ecology (3 cr)
SOC g403 Contemporary Sociological Theory (3 cr)
SOC g408 Advanced Sociological Methods (3 cr)
SOC g413 Mind, Body and Society (3 cr)
SOC g431 Criminology (3 cr)
SOC g505 Developing Societies (3 cr)

Spanish Major
SPAN 301-302 Spanish Conversation and Composition (6 cr) and their prerequisites or equivalent high school courses
LANG g437 The Teaching of Foreign Languages (3 cr)
Upper Division electives in Spanish (12 cr) (must be approved by the Foreign Languages Department and the College of Education).

Electives selected from:
THEA 209 Stage Lighting (2 cr)
THEA 214 Makeup (2 cr)
THEA 221 Stage Costume Construction (2 cr)

Single Subject Teaching Majors

American Studies
(English emphasis)

Electives selected from:
ENGL 277-278 Survey of American Literature I & II (6 cr)
ENGL 267-268 Survey of English Literature I & II (6 cr)
ENGL 433* Methods in Teaching of English (3 cr)
Approved electives in English (15 cr)
HIST 101 Foundations of Europe (3 cr)
HIST 102 Modern Europe (3 cr)
HIST 118 U.S. History and Culture (3 cr)
HIST g418 U.S. History for Teachers (3 cr)
Approved 400-level History electives (6 cr)
Approved electives in History (12 cr)
AMST 200 Introduction to American Studies (3 cr)
Any 400-level course approved for the American Studies Component in the American Studies Major (3 cr)
PHIL 101 Introduction to Philosophy (3 cr)
Approved electives in Philosophy (9 cr)
Approved electives in social sciences (6 cr)
* ENGL 433 must be completed before Student Teaching Internship.

American Studies
(History emphasis)

Electives selected from:
ENGL 277-278 Survey of American Literature I & II (6 cr)
ENGL 267-268 Survey of English Literature I & II (6 cr)
Approved electives in English (12 cr)
HIST 101 Foundations of Europe (3 cr)
HIST 102 Modern Europe (3 cr)
HIST 118 U.S. History and Culture (3 cr)
HIST g418 U.S. History for Teachers (3 cr)
HIST 291 The Historian's Craft (3 cr)
Approved 400-level History electives (6 cr)
Approved electives in History (15 cr)
PHIL 101 Introduction to Philosophy (3 cr)
Approved electives in Philosophy (9 cr)
One course in American Government (3 cr)
Approved electives in Sociology (3 cr)
Approved electives in fine arts (6 cr)
Communication and Rhetorical Studies

M C 119 Introduction to Mass Media 3 cr
COMM 208 Great Communication 3 cr
COMM 305 Argumentation and Debate 3 cr
COMM 355 Nonverbal Communication 3 cr
COMM g437 Rhetorical Theory 3 cr
COMM g441 Interpersonal Communication 3 cr
THEA 111 Stagecraft I 3 cr
THEA 118 Oral Interpretation 3 cr
THEA 251 Beginning Acting 3 cr
THEA 331 Materials and Methods for High School Speech Arts 3 cr
Electives in 400-level Communication and Rhetorical Studies courses 9 cr

Electives (4 credits) selected from:
THEA 209 Stage Lighting 2 cr
THEA 214 Makeup 2 cr
THEA 222 Stage Costume Construction 2 cr
THEA 304 Theatre Management 2 cr

English

ENGL 211 Introduction to Literary Analysis 3 cr
ENGL 277 or 278 Survey of American Literature I & II 3 cr
ENGL 267 or 268 Survey of English Literature I & II 3 cr
ENGL 281 Introduction to Language Studies 3 cr
ENGL 301 Writing About Literature 3 cr
ENGL 433 Methods: Teaching English 3 cr
ENGL 491 Senior Seminar 3 cr

One of the following:
ENGL g472 Proseminar in a Major Literary Figure 3 cr
ENGL g473 Chaucer 3 cr
ENGL g474 Milton 3 cr
ENGL g476 Shakespeare 3 cr

One of the following (3 cr):
ENGL g481 Studies in Grammar 3 cr
ENGL g485 Linguistic Analysis 3 cr
ENGL g486 Old English 3 cr

Plus one additional course from the following:
ENGL 257 or 258 Survey of World Literature I or II 3 cr
ENGL 267 or 268 Survey of British Literature I or II 3 cr
ENGL 277 or 278 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 433 must be completed before Student Teaching Internship.

Family and Consumer Sciences Education

CFS 100 Child and Family Studies

CFS 203 The Young Child 3 cr
CFS 209 Early Childhood Environments 3 cr
CFS 229 Textile Products 3 cr
CFS 314 Interior Design and Housing Perspectives 3 cr
CFS 318 Leadership Issues Seminar 1 cr
CFS 332 Programs in Family and Consumer Sciences 3 cr

CFS 429 Social and Psychological Aspects of Clothing 3 cr
CFS g431 Family Resource Management 3 cr
CFS g435 Relationships Within Families 3 cr
CFS g470 Consumer Economics 3 cr
EDUC 204 Families, Communities, and Culture 3 cr
NTD 104 Foods 3 cr
NTD 204 Meal Management 2 cr
NTD 139 Consumer Nutrition 3 cr
NTD 239 Nutrition 3 cr
CFS 495 Student Teaching: Family and Consumer Sciences 7-14 cr

Professional-Technical Certification

Requirements

HRD g401 Foundations of Professional-Technical Education 3 cr
HRD g444 Career Guidance and Special Needs in Professional-Technical Education 3 cr
HRD g468 Teaching Cooperative Education and School-to-Work 3 cr

Recommended Electives

CFS 321 Families and American Society 3 cr
CFS 322 Building Positive Relationships 3 cr
CFS g471 Advanced Consumer Economics 3 cr
CFS g472 Teaching Consumer Economics 3 cr
CFS 494 Partnerships with Professionals 3 or 6 cr
ECON 202 Principles of Microeconomics 3 cr

Geology

GEOL 100,100L The Dynamic Earth, and Lab 4 cr
GEOL 101 Physical Geography 3 cr
GEOL 110* Physical Geography for Scientists Lab 1 cr
GEOL 115/115L Physical Geography 4 cr
GEOL 210 Earth in Space and Time 3 cr
GEOL 313 Earth Materials I 3 cr
GEOL 400 Practicum in Geology Teaching 1 cr
GEOL 406 Environmental Geology 3 cr
GEOL-PHYS g410Science in American Society 2 cr
GEOL g421 Structural Geology 4 cr
GEOL g431 Geobiology and the History of Life 4 cr
GEOL g451 Sedimentation Stratigraphy 4 cr
GEOL g491 Seminar 1 cr

One of the following four courses:
GEOL 202 Historical Geology 3 cr
GEOL g456 Geology of Idaho 2 cr
GEOL g458 Geology of North America 3 cr
GEOL/HIST/POLS g471 Historical Geography of Idaho 4 cr

One of the following three courses:
GEOL 122 Rocks and Stars 3 cr
GEOL 314 Earth Materials II 3 cr
GEOL g422 Planetary Geology 3 cr

One of the following three courses:
GEOL g415 Quaternary Geology 4 cr
GEOL g420 Principles of Geochemistry 3 cr
GEOL g430 Principles of Hydrogeology 3 cr

Plus electives (any of the above courses not already completed) to total at least 45 credits
* Note: Candidates must take GEOL 110 even if they have taken the lab for GEOL 100 or GEOL 101.
Health Education

Prerequisites:
Admission to Teacher Education Program
Admission to Health Education Program

Required Courses:
H E 200 Promoting Wellness 2 cr
H E 221 Introduction to Health Education 1 cr
H E 332 Community and Public Health 2 cr
H E 340, 340L Fitness and Wellness Programs, and Lab 3 cr
H E 342 Stress and Emotional Health Education 3 cr
H E 383 Epidemiology 3 cr
H E g410 Behavior Change Theory and Applications 3 cr
H E 420 Program Planning and Implementation 3 cr
H E 430 Curriculum and Methods in Health Education 3 cr
H E g442 Environmental Health and Health Education 2 cr
H E g443 Substance Abuse and Health Education 2 cr
H E g445 Human Sexuality and Health Education 2 cr
H E 473 Marketing for Health Care 2 cr

Approved Electives 3 cr

TOTAL: 53 cr

Mathematics

C S 181 Introduction to Computer Science and Programming I 3 cr
MATH 170 Calculus I 4 cr
MATH 175 Calculus II 4 cr
MATH 240 Linear Algebra 3 cr
MATH 275 Calculus III 4 cr
MATH 287 Foundations of Mathematics 3 cr
MATH 326 Elementary Analysis 3 cr
MATH 343 Modern Geometry I 3 cr
MATH 352 Introduction to Probability 3 cr
MATH g407 Modern Algebra I 3 cr
MATH g408 Modern Algebra II 3 cr
Approved upper division mathematics electives including at least 3 credits at the 400-level 9 cr

Music Education

See Bachelor of Music Education degree program (below) for requirements.

Physical Education

PE 222 First Aid, CPR and Sport Safety 3 cr
PE 223 Foundations of Physical Education and Sport 3 cr
PE 235 Performance Techniques I 3 cr
PE 236 Performance Techniques II 3 cr
PE 237 Performance Techniques III 3 cr
PE 243 Anatomical Foundations of Human Activity 3 cr
PE 281 Practical Outdoor Skills 1 cr
PE 300 Movement Therapy and Motor Development 3 cr
PE 301, 301L Physiology of Exercise, and Lab 3 cr
PE 302, 302L Biomechanics, and Lab 3 cr
PE 322 Introduction to Sport Psychology 3 cr
PE 357 Methods of Teaching Elementary Physical Education 3 cr
PE 362 Tests and Measurements in Physical Education 3 cr
PE 364 Introduction to Sport Law 3 cr
PE 370 Care and Prevention of Athletic Injuries 3 cr
PE 437 Methods of Teaching Secondary Physical Education 3 cr
PE 475 Organization and Administration of Physical Education and Sport 3 cr
PE g494 Adapted Physical Activity 3 cr
Aquatics (consult with advisor) 1 cr

Required Courses
ECON 201-202 Principles of Microeconomics and Macroeconomics 6 cr
ECON 323 Economic History 3 cr
EDUC 336 Social Science Methods 2 cr
CFS g470 Consumer Economics 3 cr
CFS g471 Advanced Consumer Economics 3 cr
HIST 102 Development of Western Civilization 3 cr
HIST g418 U.S. History for Teachers 3 cr
HIST g423 History of Idaho 3 cr
SOC 231 Families and American Society 3 cr
SOC 232 Sociology of Health and Illness 3 cr
SOC 335 Demography and Human Ecology 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 to teach in the elementary and secondary schools. Complete information on admission to the music program, applied music, course sequencing, senior recital, 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 300 and above.

Candidates seeking the Bachelor of Music Education degree must complete Goals 1, 2, 3, 4, 5, 6, 7, 8, 9, 10A or 10B, 11, and 12 of the University General Education requirements.

Professional Education Requirement
EDUC 201 Development and Individual Differences 3 cr
EDUC 204 Families, Communities, Culture 3 cr
EDUC 301 Inquiring, Thinking, Knowing 3 cr
EDUC 401 Content Area Literacy 3 cr
SPED 350 Creating Inclusive Classrooms 3 cr
EDUC 492 Secondary Music Education: Student Teaching Internship 7-14 cr

Basic Music Requirements
MUSC 103 Theory of Music I 3 cr
MUSC 104 Theory of Music II 3 cr
MUSC 107 Recital attendance (7 semesters) 0 cr
MUSC 108 The World of Music (Goal 6) 4 cr
MUSC 113 Aural Skills I 1 cr
MUSC 114 Aural Skills II 1 cr

Theatre

COMM 208 Group Communication 3 cr
COMM 305 Argumentation and Debate 3 cr
THEA 101 Appreciation of Drama 3 cr
THEA 111 Stagecraft I 3 cr
THEA 112 Stagecraft II 3 cr
THEA 118 Oral Interpretation 3 cr
THEA 209 Stage Lighting 2 cr
THEA 214 Makeup 2 cr
THEA 221 Stage Costume Construction 2 cr
THEA 251 Beginning Acting 3 cr
THEA 304 Theatre Management 3 cr
THEA 331 Materials and Methods for High School Speech Arts 3 cr
THEA g455 Beginning Stage Direction 3 cr

Upper division electives in Theatre 10 cr
(All electives must be approved by candidate’s advisor)
College of Education

MUSC 127 Class Voice 1 cr
OR
MUSC 172 ISU Women’s Choir 1 cr
OR
MUSC 173 Concert Choir 1 cr
MUSC 203 Theory of Music III 3 cr
MUSC 204 Theory of Music IV 3 cr
MUSC 213 Aural Skills III 1 cr
MUSC 214 Aural Skills IV 1 cr
MUSC 252 Introduction to Music Education 1 cr
MUSC 255 Woodwind Methods 2 cr
MUSC 256 Brass Methods 2 cr
MUSC 258 Percussion Methods 2 cr
MUSC 259 String Methods 2 cr
MUSC 304 Music History I 3 cr
MUSC 305 Music History II 3 cr
MUSC 306 Music History III 3 cr
MUSC 311 Form and Analysis 2 cr
MUSC 312 Music Technology 2 cr
MUSC 319 Choral Conducting 2 cr
MUSC 320 Instrumental Conducting 2 cr
MUSC 333 Elementary Music Methods 3 cr
MUSC 334 Choral Music Methods 3 cr
MUSC 336 Instrumental Music Methods 3 cr
MUSC 337 Field Experience in Music Education I 1 cr
MUSC 401 Orchestration 2 cr
Applied music (major Instrument or voice) 7 cr
Large Performing Ensembles (band, orchestra, choir) 7 cr

In Addition:
Solo or joint senior recital
Piano proficiency*
Chamber Ensembles
*Piano proficiency is required for all degree candidates.
Applied music secondary credits (MUSC 118-119, MUSC 218-219, or MUSC 120) may be used toward passing the piano proficiency. The candidate must register for piano each semester until able to pass the proficiency exam.

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 300-level and above.

EDUC 170 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 201 Development and Individual Differences 3 credits. Examination of human development/individual differences as a basis for reflecting on learning. Requires 16 hours of field experience in designated settings. PREREQ: 26 credits completed; 2.75 GPA; “C” or higher in ENGL 101. F, S, Su

EDUC 204 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. F, S, Su

EDUC 210 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. F, S

EDUC 215 Preparing to Teach with Technology 3 credits. Provides prospective Teacher Education candidates the strategies and techniques for planning and instructional delivery: troubleshooting, content/tool software, ethical/fair use of technology in the educational setting. F, S, Su

EDUC 235 Introduction to Elementary Art Methods and Materials 1 credit. Exploration of media, methods, and materials useful in the integration of art with the elementary curriculum. F, S, Su

EDUC 250 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 301 Inquiring, Thinking, Knowing 3 credits. Examination of multiple perspectives on inquiring, thinking, and knowing as a basis for reflecting on educational practice. PREREQ: Admission to Teacher Education Program; EDUC 201 and EDUC 204. F, S, Su

EDUC 302 Motivation and Management 3 credits. Examination of multiple perspectives on student motivation/management of learning environments as bases for reflecting on educational practice. PREREQ OR COREQ: EDUC 301. PREREQ: EDUC 201, EDUC 204, and admission to Teacher Education Program. F, S, Su

EDUC 309 Instructional Planning, Delivery, and Assessment 6 credits. Analysis of multiple planning models, teaching methods, assessment approaches as bases for instructional decision making, delivery, and the assessment of learning. PREREQ: EDUC 301, EDUC 302, SPED 300, or SPED 355. F, S

EDUC 310 Efficient Reading 1 credit. Emphasis on developing flexibility and acceleration of reading speed and refinement of comprehension skills through intensive practice of rapid reading and comprehension building techniques applied to fiction and textbook reading. PREREQ: Permission of instructor. Graded S/U. D

EDUC 311 Instructional Technology 3 credits. Analysis of content, strategies, and evaluation for integrating technology into school curricula. Includes word processing, spread sheets, databases, communication, and presentation software. PREREQ: EDUC 215 or equivalent and admission to Teacher Education Program. F, S

EDUC 321 Integrated Language Arts Methods 3 credits. Theory and application of teaching methods for word recognition strategies and integrated language arts skills in pre-K-Elementary schools. Thirty-hour laboratory experience required. PREREQ: Admission to Teacher Education Program. F, S

EDUC 322 Literature for Children across the Curriculum 3 credits. Study of different types of children’s literature, authors, and poets. Emphasis on strategies for implementing literature in grades K-8. Fifteen hour lab required. PREREQ: Admission to Teacher Education Program. F, S

EDUC 330 Elementary Math Methods 3 credits. Study of the subject matter of elementary math programs. Emphasis on teaching methods and materials. Field experience required. PREREQ: MATH 256, MATH 257, and admission to Teacher Education Program. F, S

EDUC 331 Elementary Science Methods 3 credits. Study of the subject matter of elementary science programs. Emphasis on teaching methods and materials. Field experience required. PREREQ: General Education Goals 4 and 5, and admission to Teacher Education Program. F, S

EDUC 334 Secondary School Art: Methods and Materials 3 credits. Demonstrations and practical methods and problems involved in teaching art. Practical work in all art media used at the secondary school level. Cross-listed as ART 334. S

EDUC 335 Elementary School Art: Methods and Materials 2 credits. Demonstrations and practical methods and problems involved in teaching art. Practical work in all art media used at the elementary school level. Some craft work. Su

EDUC 336 Social Science Methods 3 credits. Study of subject content of the social studies program with emphasis on methods and materials used by the teacher, K-12. Field experience required. PREREQ: Admission to Teacher Education Program. F, S

EDUC 340 Methodology/Diagnosis in ECE 1-5 credits. Supervised practice in an approved nursery, day care center, and/or kindergarten based upon the results of diagnostic/prescriptive procedures utilized during prior coursework which indicates the student’s progression and needs. PREREQ: Permission of Early Childhood Coordinator and admission to Teacher Education Program. D

EDUC 401 Content Area Literacy 3 credits. Synthesis of principles of language and literacy as a basis for teaching in all curriculum areas. PREREQ: Admission to Teacher Education Program. F, S, Su

EDUC 4419 Developmental Literacy 3 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 321, F, S, Su

EDUC 420 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 424 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 419 or permission of instructor. F, S

EDUC 426 Remediation of Literacy Problems 3 credits. Teaching strategies for remediation problems in literacy. Emphasis on planning, implementing, and evaluating approaches and materials. PREREQ: EDUC 442. S, Su

EDUC 460 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 463 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 460 or permission of instructor. AS

EDUC 470 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 471 Interpersonal Communications 2 credits. Examination of basic concepts, principles, models, and theories of interpersonal communications and their application to educational settings. D

EDUC 472 Dynamics of Instructional Groups 2 credits. Theory, practice, and various associated with dynamics of instructional groups are presented in an experiential format with emphasis on formation, structure, and process. D

EDUC 481 Contemporary Issues in Education 1-3 credits. Examination and analysis of contemporary issues and trends in theories and practices in education. D

EDUC 482 Contemporary Issues in Education 1-3 credits. Examination and analysis of contemporary issues and trends in theories and practices in education. D

EDUC 483 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 485 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. PREREQ: Permission of instructor. F, S, Su

EDUC 491 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 492 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 336, and/or approved application. Graded S/U. F, S

EDUC 494 Elementary Education: Student Teaching Internship 7-14 credits. Candidates assume instructional and management responsibilities in a supervised elementary school setting. Includes weekly professional development seminar. PREREQ: Admission to Teacher Education Program and/or approved application. Graded S/U. F, S

EDUC 495 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 496 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 497 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

Certification Procedures
The Certification Only program is designed for candidates who already hold a bachelor of arts or bachelor of science degree and seek teaching certification only. Candidates pursuing certification must fulfill all teacher education requirements as outlined for institutional recommendation for teaching certification in the area of certification (i.e., early childhood, elementary, or secondary) and for endorsements (i.e., chemistry, history, Spanish, etc.) on the certificate.

Requirements for Elementary Education Standard Certification

1. Completion of the Professional Education Core:
   - EDUC 201 Development and Individual Differences 3 cr
   - EDUC 204 Families, Communities, Culture 3 cr
   - EDUC 215 Preparing to Teach With Technology 3 cr
   - EDUC 301 Inquiring, Thinking, Knowing 3 cr
   - EDUC 302 Motivation and Management 3 cr
   - EDUC 309 Instructional Planning, Delivery, and Assessment 6 cr
   - EDUC 311 Instructional Technology 3 cr
   - EDUC 401 Content Area Literacy 3 cr
   - SPED 350 Creating Inclusive Classrooms 3 cr
   - EDUC 494 Elementary Education: Student Teaching Internship 6-12 cr

2. Completion of the Elementary Education Professional Courses:
   - EDUC 235 Introduction to Elementary Art Methods and Materials 1 cr
   - EDUC 321 Integrated Language Arts Methods 3 cr
   - EDUC 322 Literature for Children across the Curriculum 3 cr
   - EDUC 330 Elementary Mathematics Methods 3 cr
Requirements for Secondary Education Certification

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 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.

2. Completion of the Professional Education Core and Student Teaching Internship:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 201</td>
<td>Development and Individual Differences, Culture</td>
<td>3 cr</td>
</tr>
<tr>
<td>EDUC 204</td>
<td>Families, Communities, Culture</td>
<td>3 cr</td>
</tr>
<tr>
<td>EDUC 215</td>
<td>Preparing to Teach With Technology</td>
<td>3 cr</td>
</tr>
<tr>
<td>EDUC 301</td>
<td>Inquiring, Thinking, Knowing</td>
<td>3 cr</td>
</tr>
<tr>
<td>EDUC 302</td>
<td>Motivation and Management</td>
<td>3 cr</td>
</tr>
<tr>
<td>EDUC 309</td>
<td>Instructional Planning, Delivery, and Assessment</td>
<td>6 cr</td>
</tr>
<tr>
<td>EDUC 311</td>
<td>Instructional Technology</td>
<td>3 cr</td>
</tr>
<tr>
<td>EDUC 401</td>
<td>Content Area Literacy</td>
<td>3 cr</td>
</tr>
<tr>
<td>SPED 350</td>
<td>Creating Inclusive Classrooms</td>
<td>3 cr</td>
</tr>
<tr>
<td>EDUC 496</td>
<td>Student Teaching Internship</td>
<td>7 - 14 cr</td>
</tr>
</tbody>
</table>

Department of School Psychology, Literacy, and Special Education

Chair and Associate Professor: Squires
Associate Professors: Hedeen, Nunn, S. Peterson
Assistant Professor: Klug
Assistant Professors: Cho, Helfrich, Jantz
Assistant Lecturer: Quigley

The Department of School Psychology, Literacy, and Special Education administers the Special Education, Literacy, and School Psychology program areas (see the Graduate Catalog for the latter two programs).

Education of the Deaf

Individuals interested in becoming certified teachers of children who are deaf or hard of hearing in Idaho will need to meet all requirements of the Idaho State Board of Education. Undergraduate candidates preparing to do this should consult the Office of the Dean, College of Education, as well as the Teacher Education Program, for details about admission into an undergraduate program in Elementary, Secondary, or Special Education. Individuals who have completed the required undergraduate teacher education program should consult the Department of Communication Sciences & Disorders, and Education of the Deaf, in the Kasiska College of Health Professions, for information about the graduate degree program in the Education of the Deaf.

Special Education/Human Exceptionality

The Special Education major provides candidates with a bachelor’s degree in special education and prepares candidates for professional certification as K-12 generalists in special education. This program also prepares individuals pursuing non-teaching degrees in human exceptionality. The program also offers Master’s degrees; for information on the master’s degree offerings, please refer to the Graduate Catalog.

Broadly stated, the objectives of the Special Education Program are:

1. Candidates will demonstrate an understanding of a wide variety of disability categories and their instructional implications, as well as the legal and ethical considerations for educating individuals with disabilities.

2. Candidates will demonstrate understanding of instructional methodologies and curricula that have an extensive experimental research base to support their effectiveness for all individuals, especially those with learning difficulties.

3. Candidates will make instructional decisions based on reliable and valid data that are primarily objective in nature.

4. Candidates will demonstrate instruction and behavior management strategies that are proactive and teach new skills, as opposed to being punitive in nature.

5. Candidates will demonstrate professional and collaboration skills with teachers, parents, administrators, and other professionals.

Admission Requirements

Prior to acceptance to the B.A./B.S. in Special Education/Human Exceptionality Program, all applicants must complete SPED 330 and SPED 340 and earn a grade of at least C in each course and an average of at least 3.0 across the two courses. Candidates must also complete EDUC 201 and EDUC 204 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 201 Development and Individual Differences 3 cr
- EDUC 204 Families, Communities Culture 3 cr
- EDUC 401 Content Area Literacy 3 cr
- F E 300 Movement Therapy and Motor Development 3 cr
- SPED 312 Assistive Technology 3 cr
- SPED 330 The Exceptional Child 4 cr
- SPED 340 Principles of Behavior Management 3 cr
- SPED 423 Designing Instruction 3 cr
- SPED 424 Assessment Procedures in Special Education 3 cr
- SPED 429 Strategies: Severe Disabilities 3 cr
- SPED 430 Practicum in Individualized Instruction 3 cr
- SPED 432 Direct Instruction Systems 3 cr
- SPED 434 Language and Communication Methods in Special Education 3 cr
- SPED 435 Practicum in Small Group Instruction 3 cr
- SPED 436 Math Methods for Children with Disabilities 3 cr
- SPED 437 Practicum in Large Group Instruction 3 cr
- SPED 438 Policies and Procedures in Special Education 3 cr
- SPED 441 Classroom Behavior Management 3 cr
- SPED 443 Autism 3 cr
- SPED 446 Secondary Special Education 3 cr

**Approved Electives (choose 9 credits)**

- EDUC 215 Preparing to Teach with Technology 3 cr
- SPED 426 Assessment: Severe Disabilities 3 cr
- SPED 433 The Emotionally Disturbed Child 2 cr
- SPED g440 Biomedical Aspects of Physical Disability 3 cr
- SPED g448 Prepracticum, Moderately Handicapped 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.

**Special Education Courses**

- SPED 312 Assistive Technology 3 credits. Instructional and assistive technology benefits they offer to individuals with various types of disabilities, how to evaluate children’s technology needs, how to find new technologies using a variety of resources, and how to fund the purchase of technology for children with disabilities. Focus on how to use technology to adapt and accommodate for the needs of children with diverse learning needs. F
- SPED 330 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 also given toward structuring suitable educational programs applicable for each area and the basics of special education law. Includes 50-hour practicum. F
- SPED 340 Principles of Behavior Management 3 credits. Overview of basic principles of applied behavior analysis as it relates to educating children with disabilities. S
- SPED 350 Creating Inclusive Classrooms 3 credits. Curricula and methods for educating students with diverse abilities in elementary classrooms. Characteristics of students with disabilities and students who are English language learners. Emphasizes inclusive lesson design, curricular adaptations, and collaborative teaching. PREREQ: Admission to Teacher Education Program. F, S
- SPED 355 Differentiated Instruction 3 credits. Adaptations and accommodations for differentiating student learning in secondary classrooms. Characteristics of students with disabilities and students who are English language learners. Emphasizes adaptations in content areas, instructional strategies, and team collaboration. PREREQ: Admission to Teacher Education Program. F, S
- SPED g423 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: Permission of instructor. F
- SPED g424 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 OR COREQ: SPED 330 and SPED 441 or permission of instructor. F
- SPED g426 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: Permission of instructor. F
- SPED g429 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: Permission of instructor. AS
- SPED 430 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: SPED 330 and SPED 340. COREQ: SPED 429. F
- SPED 432 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: Permission of instructor. F, S
- SPED g433 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. F
- SPED 434 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: SPED 330 and SPED 340. COREQ: SPED 432, SPED 434, and SPED 446. S
- SPED 435 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: SPED 330 and SPED 340. COREQ: SPED 432, SPED 433, and SPED 446. S
- SPED 436 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: SPED 330 and SPED 340. COREQ: SPED 440, SPED 423 and SPED 435. F

SPED 437 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: SPED 330 and SPED 340. COREQ: SPED 440, SPED 423, and SPED 435. F

SPED g438 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: Permission of instructor. S

SPED g440 Biomedical Aspects of Physical Disability 2 credits. Study of the causes, treatments, and educational implications of physical and neurological disorders of genetically and orthopedically disabled children. PREREQ: Permission of instructor. S

SPED 441 Classroom Behavior Management 3 credits. Emphasizes the practical application of reinforcement learning models and theory to classroom and other settings. PREREQ OR COREQ: SPED 330. COREQ: SPED 423, SPED 435, and SPED 436. F

SPED g443 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. AF

SPED g446 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 OR COREQ: SPED 330. COREQ: SPED 423, SPED 435, and SPED 436. F

SPED g448 Pre-Practicum, Moderately Handicapped 1-3 credits. Supervised practical work with moderately handicapped children in a clinical setting. Permission of instructor. F, S

SPED g462 Seminar: Behavior Disorders 1 credits. Topical issues related to the education of children with behavior disorders in a variety of educational and therapeutic settings. PREREQ: Permission of instructor. D

SPED g480 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 g481 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 integrated service for this exceptionality. PREREQ: Permission of instructor. AF

SPED g485 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 490 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. COREQ: SPED 498. S

SPED g491 Seminar 1-3 credits. Critical analysis of the literature in one or more areas of education. Limited enrollment. PREREQ: Permission of instructor. May be graded S/U. F, S, Su

SPED 495 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. PREREQ: Special Education Methods Core and approved application. F, S

SPED g498 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 Professor: Lyons
Professor: Lester
Associate Professor: Fitzpatrick
Assistant Professors: Appleby, Fauré, Gauthier
Associate Lecturer: Cordingley
Emeritus Faculty: 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 223 with a grade of C (2.0) or better, and a minimum cumulative GPA of 2.5.

1. Completion of the following General Education Goals: 1, 2, 3, 4, 6, and 12.
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 (P E 223).
6. An interview with an advisor within 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 in place 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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>P E 222</td>
<td>First Aid, CPR and Sport Safety</td>
<td>3 cr</td>
</tr>
<tr>
<td>P E 223</td>
<td>Foundations of Physical Education</td>
<td>3 cr</td>
</tr>
<tr>
<td>P E 243</td>
<td>Anatomical Foundations of Human</td>
<td>3 cr</td>
</tr>
<tr>
<td>P E 454</td>
<td>Senior Capstone</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Physical Education Emphasis Areas:
- Exercise Science
- Physical Education Teaching
- Outdoor Education
- Sport Management

Objective #1: To develop foundational knowledge in the basic sciences (43 credits)

(Notes: P E 243 requirement in SSPE Core is satisfied by BIOL 301, 302, and labs.)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 301, 301L</td>
<td>Anatomy and Physiology, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 302, 302L</td>
<td>Anatomy and Physiology, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL g460</td>
<td>Neuroscience</td>
<td>4 cr</td>
</tr>
</tbody>
</table>

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.

Candidates completing the Physical Education Teaching Emphasis are not required to take the P E 454 Senior Capstone core course.
In addition to completing departmental major requirements, candidates must make formal application and complete an interview for admission to the Teacher Education Program. See all requirements in the Teacher Education section of the College of Education portion of the catalog.

The Physical Education Learning Goals are aligned with 2 sets of standards: The Idaho State University College of Education Core Standards and the Content Standards in Physical Education of the National Association for Sport and Physical Education (NASPE).

**NASPE Content Standards in Physical Education**

The NASPE Standards identify seven areas that include the following.

The candidate completing this program:

1. Demonstrates competency in many movement forms and proficiency in a few movement forms;
2. Applies movement concepts and principles to the learning and development of motor skills;
3. Exhibits a physically active lifestyle; Achieves and maintains a health-enhancing level of physical fitness;
4. Achieves and maintains a health-enhancing level of physical fitness;
5. Demonstrates responsible personal and social behavior in physical activity settings;
6. Demonstrates understanding and respect for differences among people in physical activity settings; and
7. Understands that physical activity provides opportunities for enjoyment, challenge, self-expression, and social interaction.

**Core Component: 9 credits**

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>P E 222</td>
<td>First Aid, CPR and Sport Safety</td>
<td>3 cr</td>
</tr>
<tr>
<td>P E 223</td>
<td>Foundations of Physical Education and Sport</td>
<td>3 cr</td>
</tr>
<tr>
<td>P E 243</td>
<td>Anatomical Foundations of Human Activity</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

**Objective #1: To develop teaching skills in a variety of areas in physical activities, athletics, and creative movement (20 credits)**

**Skills Component: 10 credits**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>P E 235</td>
<td>Activity Performance Techniques I</td>
<td>3 cr</td>
</tr>
<tr>
<td>P E 236</td>
<td>Activity Performance Techniques II</td>
<td>3 cr</td>
</tr>
<tr>
<td>P E 237</td>
<td>Activity Performance Techniques III</td>
<td>3 cr</td>
</tr>
<tr>
<td></td>
<td>One (1) aquatics course</td>
<td>1 cr</td>
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</tbody>
</table>

**Methods Component: 10 credits**

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>P E 281</td>
<td>Practical Outdoor Skills</td>
<td>1 cr</td>
</tr>
<tr>
<td>P E 357</td>
<td>Methods of Teaching Elementary Physical Education</td>
<td>3 cr</td>
</tr>
<tr>
<td>P E 370</td>
<td>Care and Prevention of Athletic Injuries</td>
<td>3 cr</td>
</tr>
<tr>
<td>P E 437</td>
<td>Methods of Teaching Secondary Physical Education</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

**Objective #2: To acquire knowledge in the basic foundations of human activity (15 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>P E 300</td>
<td>Movement Theory and Motor Development</td>
<td>3 cr</td>
</tr>
<tr>
<td>P E 301, 301L</td>
<td>Physiology of Exercise, and Lab</td>
<td>3 cr</td>
</tr>
<tr>
<td>P E 302, 302L</td>
<td>Biomechanics, and Lab</td>
<td>3 cr</td>
</tr>
<tr>
<td>P E 322</td>
<td>Introduction to Sport Psychology</td>
<td>3 cr</td>
</tr>
<tr>
<td>P E g494</td>
<td>Adapted Physical Activity</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

**Objective #3: To understand and develop skills required for teaching physical education (9 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>P E 362</td>
<td>Tests and Measurements in Physical Education</td>
<td>3 cr</td>
</tr>
<tr>
<td>P E 364</td>
<td>Introduction to Sport Law</td>
<td>3 cr</td>
</tr>
<tr>
<td>P E 457</td>
<td>Organization and Administration of Physical Education and Sport</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

**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 – 46 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 222) core requirements are satisfied by P E 285 Wilderness First Aid or P E 441 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 (8 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>P E 386</td>
<td>Outdoor Leadership</td>
<td>2 cr</td>
</tr>
<tr>
<td>P E 440</td>
<td>Survey of Outdoor Education Literature</td>
<td>2 cr</td>
</tr>
<tr>
<td>P E 445</td>
<td>Methods of Teaching Outdoor Activities and Practice</td>
<td>3-4 cr</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>P E 271</td>
<td>Winter Survival Skills</td>
<td>1 cr</td>
</tr>
<tr>
<td>P E 272</td>
<td>Wilderness Survival Skills</td>
<td>1 cr</td>
</tr>
<tr>
<td>P E 282</td>
<td>Map, Compass and Backcountry Navigation</td>
<td>1 cr</td>
</tr>
<tr>
<td>P E 283</td>
<td>Leave No Trace Trainer</td>
<td>1 cr</td>
</tr>
<tr>
<td>P E 285</td>
<td>Wilderness First Aid</td>
<td>1 cr</td>
</tr>
<tr>
<td>P E 286</td>
<td>Avalanche and Winter Sports</td>
<td>1 cr</td>
</tr>
<tr>
<td>P E 381</td>
<td>River Safety and Swiftwater</td>
<td>1 cr</td>
</tr>
<tr>
<td>P E 383</td>
<td>Advanced Rock Climbing and Climbing Safety</td>
<td>2 cr</td>
</tr>
<tr>
<td>P E 384</td>
<td>Outdoor Risk Management and Liability</td>
<td>2 cr</td>
</tr>
<tr>
<td>P E 441</td>
<td>Wilderness First Responder Certification</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Candidates who at the time of graduation possess a current certificate in Emergency Medical Technician (EMT), or Wilderness First Responder may apply three (3) credits to this component.

**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)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 101, 101L</td>
<td>Biology I, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 102, 102L</td>
<td>Biology II, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 209</td>
<td>General Ecology</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 213</td>
<td>Fall Flora</td>
<td>2 cr</td>
</tr>
<tr>
<td>BIOL 214</td>
<td>Spring Flora</td>
<td>2 cr</td>
</tr>
<tr>
<td>BIOL 337</td>
<td>Conservation of Natural Resources</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL g426</td>
<td>Herpetology</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL g427</td>
<td>Ichthyology</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL g438</td>
<td>Ornithology</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL g441</td>
<td>Mammalogy</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL g489</td>
<td>Field Ecology</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEOL 100, 100L</td>
<td>The Dynamic Earth, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>GEOL 109</td>
<td>Physical Geology for Scientists</td>
<td>4 cr</td>
</tr>
<tr>
<td>GEOL 110</td>
<td>Physical Geology for Scientists Laboratory</td>
<td>1 cr</td>
</tr>
<tr>
<td>GEOL 201</td>
<td>Rocks, Rails, and Trails</td>
<td>1 cr</td>
</tr>
<tr>
<td>GEOL 210</td>
<td>Earth in Space and Time</td>
<td>2 cr</td>
</tr>
<tr>
<td>GEOL g456</td>
<td>Geology of Idaho</td>
<td>2 cr</td>
</tr>
<tr>
<td>GEOL g491</td>
<td>Seminar</td>
<td>1 cr</td>
</tr>
<tr>
<td>PHYS 152</td>
<td>Descriptive Astronomy</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHYS 153</td>
<td>Descriptive Astronomy</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHYS 325</td>
<td>Introduction to Weather and Climate</td>
<td>3 cr</td>
</tr>
</tbody>
</table>
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 8 PEAC credits can be counted towards graduation requirement)

PEAC 101 Adaptive Snow Skiing 1 cr
PEAC 108 Instructor Training of Adaptive Snowsking 1 cr
PEAC 163 Backpacking 1 cr
PEAC 165 Backcountry GPS Navigation 1 cr
PEAC 166 Canoeing 1 cr
PEAC 167 Kayak Touring 1 cr
PEAC 175A Beginning Kayaking 1 cr
PEAC 176A Beginning Rock Climbing 1 cr
PEAC 177A Beginning Cross-Country Skiing 1 cr
PEAC 178A Beginning Telemark Cross-Country Skiing 1 cr
PEAC 178B Intermediate Telemark Cross-Country Skiing 1 cr
PEAC 181 Bicycling 1 cr
PEAC 182C Advanced Dutch Oven Cooking 1 cr
PEAC 185 Basic Mountaineering 1 cr
PEAC 186B Intermediate Fly Fishing 1 cr
PEAC 189 Beginning Gym Climbing 1 cr
PEAC 191B Intermediate Horsemanship 1 cr
PEAC 194 Caving Workshop 1 cr
PE 200 Challenge Course Facilitator 2 cr
PE 271 Winter Survival Skills 1 cr
PE 272 Wilderness Survival Skills 1 cr
PE 280 Winter Camping and Backcountry Travel 1 cr
PE 281 Practical Outdoor Skills 1 cr
PE 282 Map, Compass and Backcountry Navigation 1 cr
PE 284 Intermediate Kayaking and Whitewater Safety 1 cr
PE 286 Avalanche and Winter Sports Safety 1 cr
PE 287 Snowboard Instructor Training 1 cr
PE 288 Ski Instructor Training 1 cr
PE 381 River Safety and Swiftwater Rescue 1 cr
PE 383 Advanced Rock Climbing and Climbing Safety 2 cr
PE 389G Physical Education Workshop* 1-3 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).

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 206 Creative Writing Workshop 3 cr
- ENGL 307 Professional and Technical Writing 3 cr
- ENGL 308 Business Communications 3 cr
- COMM 201 Business and Professional Speaking 3 cr
- COMM 208 Group Communication 3 cr
- M C 230 Introduction to Photography 4 cr
- M C 241 Introduction to Public Relations 3 cr
- M C 260 Photo and Graphic Workshop 3 cr
- M C 327 Magazine Article Writing 3 cr
- M C 470 Communication through Web Design 3 cr
- P E 493 Introduction to Sport Sociology 3 cr
- POLS 455 Environmental Politics and Polic 3 cr
- POLS 457 Grantwriting 3 cr
- MGT 312 Individual and Organizational Behavior 3 cr
- MGT 484 Organization Behavior 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)
- P E 235 Activity Performance 3 cr
- P E 236 Activity Performance 3 cr
- P E 237 Activity Performance 3 cr

Additional Coursework (7 credits):
- P E 281 Practical Outdoor Skills 1 cr
- P E 322 Introduction to Sport Psychology 3 cr
- Approved Electives 3 cr

Possible Elective Choices:
- P E 300 Movement Theory and Motor Development 3 cr
- P E 301, 301L Physiology of Exercise and Lab 3 cr
- P E 302, 302L Biomechanics and Lab 3 cr
- P E 357 Methods of Teaching Elementary Physical Education 3 cr
- P E 362 Tests and Measurements in Physical Education 3 cr
- P E 370 Care and Prevention of Athletic Injuries 3 cr
- P E 437 Methods of Teaching 3 cr
- P E 483 Secondary Physical Education 3 cr
- P E 493 Introduction to Sport Sociology 3 cr
- P E 494 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.

- P E 364 Introduction to Sport Law 3 cr
- P E 475 Organization and Administration of Physical Education and Sport 3 cr
- PE 473 Facilities Planning and Design 3 cr
- Approved Electives 3 cr

Possible Elective Choices:
- P E 386 Outdoor Leadership 2 cr
- POLS 458 Public Administration Ethics 3 cr
- COMM 201 Business and Professional Speaking 3 cr
- COMM 208 Group Communication 3 cr
- COMM 254 Organizational Communication 3 cr
- COMM 355 Nonverbal Communication 3 cr
- COMM 408 Communication Theory 3 cr
- COMM 452 Conflict Management 3 cr
- COMM 454 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 201 Principles of Accounting I 3 cr
MGT 312 Individual and Organizational Behavior 3 cr
MGT 473 Human Resource Management 3 cr
P E 366 Sport Marketing 3 cr
Approved Electives 3 cr

Possible Elective Choices:
- Acct 202 Principles of Accounting II 3 cr
- CIS 300 Information Management Systems 3 cr
- ECON 201 Principles of Macroeconomics 3 cr
- ECON 202 Principles of Microeconomics 3 cr
- FIN 315 Corporate Financial Management 3 cr
- MGT 216 Business Statistics 3 cr
- MGT 217 Advanced Business Statistics 3 cr
- MGT 261 Legal Environment of Organizations 3 cr
- MKTG 325 Basic Marketing Management 3 cr
- MKTG 441 Organizational Behavior 3 cr
- Consumer Behavior 3 cr
- M C 241 Introduction to Public Relations 3 cr
- POLS 409 Community and Regional Planning 3 cr
- POLS 441 Administrative Law 3 cr
- POLS 442 Constitutional Law 3 cr
- POLS 443 Constitutional Law 3 cr
- POLS 451 Organizational Theory and Bureaucratic Structure 3 cr
- POLS 452 Financial Administration and Budgeting 3 cr
- POLS 454 Public Personnel Administration 3 cr
- POLS 456 Labor Organization 3 cr
- POLS 457 Grantwriting 3 cr
Objective # 4: To obtain practical experience in the field of sport management. Criteria for courses: Candidates will engage in a pre-approved 45-hour sports management internship. Three (3) credits required.

PE 490  Sport Management Practicum 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—13 credits of required courses and 11 credits of elective courses.

Required Courses (15 credits):
P E 301, 301L  Physiology of Exercise, and Lab 3 cr
P E 302, 302L  Biomechanics, and Lab 3 cr
P E 322  Introduction to Sport Psychology 3 cr
P E 370  Care and Prevention of Athletic Injuries 3 cr
P E 480  Coaching Problems 3 cr

Elective Courses (11 credits):
Select eight (8) credits:
P E 312  Practical Applications of Coaching Baseball/Softball 2 cr
P E 313  Practical Applications of Coaching Basketball 2 cr
P E 314  Practical Applications of Coaching Football 2 cr
P E 315  Practical Applications of Coaching Soccer 2 cr
P E 316  Practical Applications of Coaching Tennis 2 cr
P E 317  Practical Applications of Coaching Track and Field 2 cr
P E 318  Practical Applications of Coaching Volleyball 2 cr
P E 319  Practical Applications of Coaching Wrestling 2 cr
P E 480  Coaching Problems 3 cr

Select three (3) credits:
P E 300  Movement Theory and Motor Development 3 cr
P E 475  Organization and Administration of Physical Education and Sport 3 cr
P E 493  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 4 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 21 credits from the following four components:

Leadership and Teaching Component (7 credits)
PE 386  Outdoor Leadership 2 cr
PE 440  Survey of Outdoor Education Literature 2 cr
PE 445  Methods of Teaching Outdoor Activities and Practicum 3 cr

Outdoor Education Safety Component (5 credits)

Required Course
PE 283  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 271  Winter Survival Skills 1 cr
PE 272  Wilderness Survival Skills 1 cr
PE 282  Map, Compass, and Backcountry Navigation 1 cr
PE 285  Wilderness First Aid 1 cr
PE 286  Avalanche and Winter Sports Safety 1 cr
PE 381  River Safety and Whitewater Rescue 1 cr
PE 383  Advanced Rock Climbing and Climbing Safety 2 cr
PE 441  Wilderness First Responder Certification 3 cr

Natural History Component
Minimum of four (4) credits required. (The Natural History Component is waived for majors or minors in geology, biology, botany, zoology or ecology.)

BIOL 101, 101L  Biology I, and Lab 4 cr
BIOL 102, 102L  Biology II, and Lab 4 cr
BIOL 209  General Ecology 4 cr
BIOL 213  Fall Flora 2 cr
BIOL 214  Spring Flora 2 cr
BIOL 337  Conservation of Natural Resources 3 cr
BIOL g426  Herpetology 3 cr
BIOL g427  Ichthyology 3 cr
BIOL g438  Ornithology 3 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 200  Challenge Course Facilitator 2 cr
PE 271  Winter Survival Skills 1 cr
PE 272  Wilderness Survival Skills 1 cr
PE 280  Winter Camping and Backcountry Travel 1 cr
PE 281  Practical Outdoor Skills 1 cr
PE 282  Map, Compass and Backcountry Navigation 1 cr
PE 284  Intermediate Kayaking and Whitewater Safety 1 cr
PE 286  Avalanche and Winter Sports Safety 1 cr
PE 287  Snowboard Instructor Training 1 cr
PE 288  Ski Instructor Training 1 cr
PE 381  River Safety and Whitewater Rescue 1 cr
PE 383  Advanced Rock Climbing and Climbing Safety 2 cr
PE g491  Physical Education Workshop* 1-3 cr

PEAC 101  Adaptive Snow Skiing 1 cr
PEAC 108  Instructor Training of Adapted Snowskiing 1 cr
PEAC 163  Backcountry GPS Navigation 1 cr
PEAC 166  Canoeing 1 cr
PEAC 167  Kayak Touring 1 cr
PEAC 175A  Beginning Kayaking 1 cr
PEAC 176A  Beginning Rock Climbing 1 cr
PEAC 177A  Beginning Cross-Country Skiing 1 cr
PEAC 178A  Beginning Telemark Cross-Country Skiing 1 cr
PEAC 178B  Intermediate Telemark Cross-Country Skiing 1 cr
PEAC 181  Bicycling 1 cr
PEAC 182C  Advanced Dutch Oven Cooking 1 cr
PEAC 185  Basic Mountain Mountaineering 1 cr
PEAC 186B  Intermediate Fly Fishing 1 cr
PEAC 189  Beginning Gym Climbing 1 cr
PEAC 191B  Intermediate Horsemanship 1 cr
PEAC 194  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 (3 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 ASE Postgraduate Citizenship Through Sports Course.

**Required Courses (21 credits):**

- **MGT 312** Individual and Organizational Behavior 3 cr
- **MGT 473** Human Resource Management 3 cr
- **P E 322** Introduction to Sport Psychology 3 cr
- **P E 364** Introduction to Sport Law 3 cr
- **P E 366** Sport Marketing 3 cr
- **P E g473** Facilities Planning and Design 3 cr
- **P E 490** Sport Management Practicum 3 cr

**Sport Management Elective Courses (6 credits):**

- **ECON 201** Principles of Macroeconomics 3 cr
- **ECON 202** Principles of Microeconomics 3 cr
- **FIN 315** Corporate Financial Management 3 cr
- **MGT 216** Business Statistics 3 cr
- **MKTG 325** Basic Marketing Management 3 cr
- **MKTG 327** Consumer Behavior 3 cr
- **P E g465** Organization and Administration of Intramural Sports 3 cr
- **P E 475** Organization and Administration of Physical Education and Sport 3 cr
- **P E g491** Physical Education Workshop* 1-3 cr
- **P E 493** Introduction to Sport Sociology 3 cr

*When workshop relates to Sport Management.*

**Professional Physical Education Courses**

- **P E 160** Rape Aggression Defense 1 credit. Strategies for self-defense in physically threatening situations. Methods to enhance possibilities for avoidance of physical harm are also covered.
- **P E 205** Methods and Techniques of Gymnastics 2 credits. Fundamental methods and techniques for teaching a variety of gymnastic activities, including tumbling and apparatus.
- **P E 200** Challenge Course Facilitator 1 credit. 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.
- **P E 222** 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.
- **P E 223** 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.
- **P E 235** Activity Performance Techniques I 3 credits. Laboratory enhanced skills in field-based activities and games. Emphasis on participant skill development and performance.
- **P E 236** Activity Performance Techniques II 3 credits. Laboratory enhanced skills in racquet and court sports. Emphasis on participant skill development and performance.
- **P E 237** 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.
- **P E 241** Sports Officiating I 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.
- **P E 243** 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.
- **P E 259** 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.
- **P E 271** 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.
- **P E 272** Wilderness Survival Skills 1 credit. Designed to provide candidates with knowledge and skills necessary to survive a 72 hour emergency (summer and fall seasons). Includes signaling, shelter building, hypothermia, survival kits, fire building, direction finding and desert hazards.
- **P E 280** Winter Camping and Backcountry Travel 1 credit. Techniques, equipment and safety of overnight winter wilderness travel, backcountry skiing and snowshoeing. Permission of instructor.
- **P E 281** 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.
- **P E 282** 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.
- **P E 283** Leave No Trace Trainer I 1 credit. Principles and practices of minimum impact outdoor techniques including traveling approaches, waste disposal, campsite placement, outdoor ethics, state/federal land management requirements, and sport-specific procedures. Students receive “Leave No Trace” national certification.
- **P E 284** Intermediate Kayaking and Whitewater Safety 1 credit. Combines practical field experience in moving water with a study of river safety and accident prevention. Topics include hazard evaluation, self and team rescue, case history review, and whitewater safety procedures.
- **P E 285** Wilderness First Aid 1 credit. Provides an introduction to First Aid and patient care in remote settings. Includes wound and infection management, realigning fractures and dislocations, improvised splinting techniques, patient monitoring and long-term management problems, and up-to-date information on environmental emergencies.
- **P E 286** Avalanche and Winter Sports Safety 1 credit. A study of snow, winter hazards, avalanche safety and rescue. Topics include basic snow physics, crystal identification, metamorphic processes, factors influencing avalanches, use of transceivers, snow pack evaluation, and avalanche rescue techniques.
- **P E 287** Snowboard Instructor Training 1 credit. Indoors: mechanics of snowboarding, teaching progressions, effective teaching styles and snowboarding techniques. Outdoors: teaching progressions, snowboarding demos and snowboarding tips.
- **P E 288** Ski Instructor Training 1 credit. Indoors: skiing mechanics, teaching progressions, effective teaching styles and skiing techniques. Outdoors: teaching progressions, skiing demos and techniques for improved skiing.
- **P E 300** Movement Theory and Motor Development 3 credits. Introduces the candidate to the science of developmental human movement including fundamental concepts of movement behavior presented in a bio-social context and the concepts of learning in the psychomotor domain.
- **P E 301** Physiology of Exercise 3 credits. Theoretical and applied study of the effects of physical work and exercise on physiological processes of the human body. Lecture and laboratory. PREREQ: P E 243, or BIOL 301 and BIOL 302. COREQ: P E 301L.
- **P E 301L** Physiology of Exercise Laboratory 0 credit. Physiological experiments and testing. COREQ: P E 301.
- **P E 302** Biomechanics 3 credits. The study of anatomical and mechanical principles that apply to human movement. Study will include exercise and sport applications. Lecture and laboratory. PREREQ: P E 243, or BIOL 301 and BIOL 302. COREQ: P E 302L.
P E 302L. Biomechanics Laboratory 0 credits. Biomechanical experiments and testing. COReq: P E 302, F, S
P E 312 Practical Applications of Coaching Baseball and Softball 2 credits. Essential elements of coaching baseball and softball. Emphasis on application and practice in the educational setting. D
P E 313 Practical Applications of Coaching Basketball 2 credits. Essential elements of coaching basketball. Emphasis on application and practice in the educational setting. F
P E 314 Practical Applications of Coaching Football 2 credits. Essential elements of coaching football. Emphasis on application and practice in the educational setting. S
P E 315 Practical Applications of Coaching Soccer 2 credits. Essential elements of coaching soccer. Emphasis on application and practice in the educational setting. D
P E 316 Practical Applications of Coaching Tennis 2 credits. Essential elements of coaching tennis. Emphasis on application and practice in the educational setting. S
P E 317 Practical Applications of Coaching Track and Field 2 credits. Essential elements of coaching track and field. Emphasis on application and practice in the educational setting. S
P E 318 Practical Applications of Coaching Volleyball 2 credits. Essential elements of coaching volleyball. Emphasis on application and practice in the educational setting. S
P E 319 Practical Applications of Coaching Wrestling 2 credits. Essential elements of coaching wrestling. Emphasis on application and practice in the educational setting. D
P E 322 Introduction to Sport Psychology 3 credits. Study of theoretical and applied psychological parameters in sport settings. Specific topics include the coach-athlete relationship and issues in sport performance. Also includes motivation, leadership, communication, ethics, and intervention strategies. F, S
P E 357 Methods of Teaching Elementary Physical Education 3 credits. Prepares candidates to teach elementary physical education activities. Emphasis on a variety of teaching methods and their application to all skill levels at the elementary level. PREREQ: Admission to College of Education Teacher Education Program or permission of instructor. F, S, Su
P E 358 Water Safety Instructor’s course 3 credits. Techniques of teaching swimming, diving, and community water safety skills including small craft safety. Emphasis on skill progressions and planning/organizing courses. American Red Cross certificate awarded if examination is passed. Su
P E 362 Tests and Measurements in Physical Education 3 credits. Study of constructive practical and written tests applicable to physical education. Study of the theory of practice of test administration, brief study of statistical methods and measurements in physical education. F
P E 364 Introduction to Sport Law 3 credits. Study of the law as it relates to physical education and sport. Includes fields of tort law, criminal law, contract law, and constitutional law as they relate to physical education and sport settings. F
P E 366 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
P E 370 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 243, or BIOL 301 and BIOL 302. F, S
P E 380 Field Experience 1 credit. Orientation, observation, planning and supervised experience exposes the candidate to activity instruction under the direction of a major advisor. D
P E 381 River Safety and Swiftwater Rescue 1 credit. A comprehensive safety and rescue course for river users and rescue personnel. Topics include safety equipment, river hazards, river crossings, tag line procedures, zip line and Z-pulley use, moving water extrications, and first aid considerations. Su
P E 383 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 176A or permission of instructor. S
P E 384 Outdoor Risk Management and Liability 1 credit. Legal implications of outdoor recreation programming including a study of tort liability, risk evaluation, relevant case law, legal management strategies, and the use of waivers and releases. F
P E 386 Outdoor Leadership 2 credits. Designed to provide candidates with the knowledge to organize and lead outdoor activities. Includes leadership, outdoor safety, program promotion, planning, safety, and environmental impact. Practical experiences are included. S
P E 413 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
P E 427 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
P E 437 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
P E 440 Survey of Outdoor Education Literature 2 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
P E 441 Wilderness First Responder Certification 3 credits. 80-hour certification program, including cardiic 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
P E 445 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 386, PE 440, and permission of instructor. S
P E 454 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
P E 465 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
P E 473 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
P E 475 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
P E 480 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
P E 481 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
Activity Courses in Physical Education

PEAC 100 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 101 Adaptive Snow Skiing 1 credit. Adaptive and corrective exercise program in skiing designed for individuals unable to participate in a regular activity class. S

PEAC 102 Adaptive Waterskiing 1 credit. Adaptive and corrective exercise program in waterskiing designed for individuals unable to participate in a regular activity class. Su

PEAC 103 Adaptive Swimming 1 credit. Adaptive and corrective exercise programs in aquatics designed for individuals unable to participate in a regular activity class. Su

PEAC 104 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 105 Seated Aerobics 1 credit. Adaptive and corrective exercise programs designed to improve cardiovascular fitness, flexibility and strength. D

PEAC 107 Instructor Training of Adapted Waterskiing 1 credit. Methods and techniques of teaching waterskiing to people with disabilities. Su

PEAC 108 Instructor Training of Adapted Snowskiing 1 credit. Methods and techniques of teaching snowskiing to people with disabilities. S

PEAC 109 Instructor Training of Adapted Sport 1 credit. Methods and techniques of teaching a variety of sport skills to people with disabilities. F, S

PEAC 110 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. Su

PEAC 120 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 121A 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 121B 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 121A or permission of instructor. D

PEAC 122A Beginning Yoga 1 credit. Introduction to Yoga practice; building and developing strength, balance, flexibility and an appreciation for controlled movement. F, S

PEAC 122B 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 129 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 130 Aquateise 1 credit. Techniques of water exercises for physical conditioning. Physiological self-assessments and water safety will be covered. F, S

PEAC 131A Beginning Aerobics 1 credit. Introduction to elementary techniques and modalities of aerobic exercise. Physiological self-assessments and safety will be covered. F, S

PEAC 131B Intermediate Aerobics 1 credit. Continuation of elementary techniques, and introduction to more strenuous aerobic exercise for the intermediate level student. Physiological self-assessments, safety, and training benefits of a variety of modalities are covered. F, S

PEAC 131C Advanced Aerobics 1 credit. High-level aerobic techniques and modalities designed for the advanced student. More advanced physiological self-assessments and discussion of a variety of modalities will be covered. D

PEAC 132 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 132A 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 133 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 134A 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 134B 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 135A 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 135B 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 135A OR PERMISSION OF INSTRUCTOR. D

PEAC 136 Targit Fit (TM) Conditioning 1 credit. Targit Fit (TM) system used for over 115 different weight room type exercises while learning resistance training. Resistance training options allow students to improve muscular strength, overall cardiovascular endurance and flexibility while improving bone density. F, S

PEAC 137 Marathon Training 1 credit. Physical, mental and spiritual training principles for beginning runners training to complete marathons. D

PEAC 138 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 139A 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 139B 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 140A Beginning Billiards 1 credit. Introduction to the fundamental skills involved in billiards: technique, game play, scoring, and etiquette. F, S

PEAC 140B Intermediate Billiards 1 credit. Designed for the intermediate level player; this course explores a variety of more advanced shots and strategies. F, S

PEAC 141A Fundamentals of Bowling 1 credit. Introduction to fundamental skills, scoring, keeping, handicaps, and rules of bowling. F, S

PEAC 141B 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 141C Advanced Team Bowling 1 credit. Introduction to more advanced individual techniques and skill assessment and corrections for bowling. F, S

PEAC 142A Beginning Golf 1 credit. Fundamental philosophies and techniques of golf, including grip, use of irons, woods, and putter, and etiquette. F, S, Su

PEAC 142B Intermediate Golf 1 credit. Designed for the intermediate golfer, this course builds on the acquisition of skill in the fundamental strokes; etiquette; and more advanced reading of the course. F, S, Su

PEAC 143A Beginning Judo 1 credit. Rudimentary principles and philosophies of judo, including the techniques of grappling, throwing and falling. F, S

PEAC 143B 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 143C 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 144 Tae Kwnodo 1 credit. Presentation of principles and philosophies of Tae Kwnodo, a Korean form of karate meant for energy conservation in self-defense technique. F, S

PEAC 145 Rodeo 1 credit. An orientation to the safety and techniques of the various events of the modern-day rodeo. F, S

PEAC 146 Archery 1 credit. Introduction to equipment, technique, and safety practices of archery. D

PEAC 146B Archery — Bowhunter Education 1 credit. Technique, strategy, safety and equipment in the sport of Bowhunter Archery. Bowhunter Education Certification included. F, S

PEAC 147A Beginning Karate 1 credit. Principles and philosophies of a modified Shorin Ryu Karate Do directed towards beginning martial artists. F, S

PEAC 148A 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 149A 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 149B 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 149A or equivalent skill and ability. D

PEAC 150A Beginning Racquetball 1 credit. Introduction to fundamentals of technique, strategy, and safety in the game of racquetball. F, S

PEAC 150B Intermediate Racquetball 1 credit. Continuation of basic skills and fundamental strategies for the intermediate level racquetball player. F, S

PEAC 150C Advanced Racquetball 1 credit. Refinement of skills, techniques, and strategies for the advanced level racquetball player. D

PEAC 151A Beginning Tennis 1 credit. Rudimentary principles and techniques of tennis, including basic shot selection, conditioning, drill works, and game play. F, S, Su

PEAC 151B 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 151C Advanced Tennis 1 credit. Refinement of skills, techniques, and strategies for the advanced level player. D

PEAC 152A Beginning Badminton 1 credit. Introduction to basic skills, game play, and strategies in the game of badminton. D

PEAC 152B Intermediate Badminton 1 credit. Continuation of skill refinement, more advanced game play, and strategies for the intermediate player. D

PEAC 152C Advanced Badminton 1 credit. Refinement of fundamental skills, more advanced game play, and strategies for the advanced player. D

PEAC 153 Racquet Sports 1 credit. Introduction to the basic fundamentals of the game of table tennis. Includes fundamental individual and doubles techniques, strategies, and play. D

PEAC 155A Beginning Soccer 1 credit. Introduction to basic individual and team soccer skills, including dribbling, shooting, and offensive and defensive techniques and strategies. S

PEAC 155B Intermediate Soccer 1 credit. Continuation of fundamental team and individual skill acquisition, and introduction of more advanced techniques and strategies. D

PEAC 156A Beginning Basketball 1 credit. Fundamental individual and team techniques, strategies, and play. F, S

PEAC 156B Intermediate Basketball 1 credit. More advanced individual and team techniques, strategies and play for intermediate level players. F, S

PEAC 157A Beginning Volleyball 1 credit. Introduction to fundamental individual and team skills, strategies, and play for beginning level volleyball players. S

PEAC 157B Intermediate Volleyball 1 credit. More advanced individual and team skills, strategies, and play for intermediate level volleyball players. S

PEAC 158 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 159 Ultimate Frisbee 1 credit. This course is designed to enhance student skills and abilities in ultimate frisbee. D

PEAC 160A Beginning Skiing 1 credit. Fundamental techniques, etiquette, training, safety practices and skill practice in downhill skiing for beginners. S

PEAC 160B Intermediate Skiing 1 credit. For intermediate level skiers, an emphasis on safety practices, etiquette, more advanced techniques, training, and skill practice. S

PEAC 160C Advanced Skiing 1 credit. Intended for advanced skiers, this course emphasizes high-level skill acquisition, training, safety, ski etiquette, and skill practice. S

PEAC 161A Beginning Night Skiing 1 credit. Skill acquisition and safety practices for beginners who wish to ski at night. S
PEAC 162A Beginning Snowboarding 1 credit. Introduction to snowboarding, including selection of equipment, safety practices, etiquette, and techniques. S

PEAC 162B Intermediate Snowboarding 1 credit. Designed for the experienced snowboarder. A continuation of the basic skills and techniques included in the beginning course. S

PEAC 163 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 164A 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 165 Backcountry GPS Navigation 1 credit. The practical use of portable GPS devices for outdoor applications. Topics covered include angular and rectangular coordinates, cross-country land navigation, use of waypoint coordinates, determining distance, and limitations of GPS. F

PEAC 166 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 167 Kayak Touring 1 credit. Basic skills for lake, ocean and flat-water kayaking including equipment, technique, navigation, safety and rescue. F

PEAC 168 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 169 Touch Rugby 1 credit. Introduction to the participation in the fundamental techniques, strategies, training systems and safety of touch rugby. D

PEAC 170A Beginning Swimming 1 credit. Introduction to propulsive movement skills in the water; includes safety, front crawl, and elementary backstroke. F, S

PEAC 170B 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 170C Advanced Swimming 1 credit. Refinement of previous strokes; includes introduction to butterfly, inverted breaststroke, the trimester, and overarm sidestroke. D

PEAC 171 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 172 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 173 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 174 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 175A 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 176A 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 176B 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 177A 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 177B 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 178A 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 ski. S

PEAC 178B Intermediate Telemark Cross-Country Skiing 1 credit. Course builds upon the basic skills first introduced in the beginning course. Introduces additional techniques. S

PEAC 179 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 180A Beginning Windsurfing 1 credit. Introduction to the basic skills of sailboarding including sail rigging, sailing maneuvers, wind reading and windsurfing safety. F, S

PEAC 180B 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 181 Bicycling 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 182A 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 182C 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 185 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 186A 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 186B 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 186A or permission of instructor. D

PEAC 186C 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 186B or permission of instructor. F, S

PEAC 186D 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 186E 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 187A 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 187B Intermediate Fly Tying 1 credit. Intermediate level course for the experienced fly-tyer. Advanced patterns included with ad-
ditional emphasis on innovative materials and techniques. Basic entomology will also be addressed. PREREQ: PEAC 187A or permission of instructor. D

**PEAC 187C 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 189 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 190 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 191A 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 191B 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 191A or permission of instructor. D

**PEAC 193 Leave No Trace 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 194 Caving Workshop 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 196 Skateboarding 1 credit.** Introduces the sport of Skateboarding. The class covers basic throwing techniques, putting styles and mental preparation for competitive play. F

**PEAC 197 Handball 1 credit.** Introduction to the fundamentals of technique, strategy, and safety in the game of handball. D

**PEAC 198A 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 198B Team Sports: Lacrosse 1 credit.** Fundamentals of Lacrosse including: game rules, equipment, safe practices, cradling, passing, catching, scooping, and scrimmaging. D

**PEAC 198C 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
College of Engineering

Richard T Jacobsen, Ph.D., Dean
D. S. Naidu, Ph.D., Associate Dean
Research Professor and Director of Institute of Nuclear Science and Engineering: Lineberry
Associate Professors: Ellis, Kantabutra, Wabrek, Williams
Assistant Professors: Chiu, Perez, Savage, Tappan
Research Assistant Professor: Dunzik-Gougar
Senior Lecturer: Mahar
Associate Lecturer: Hofle
Specialist Engineer and Associate Lecturer: Hart
Engineer and Assistant Lecturer: Gansauge
Affiliate Faculty: Aumeier, Boston, Carney, Rieger, Sandquist, Start, Walker, Wolper, Zaltzman
Emeritus Faculty: Wilson

Mission
The mission of the College of Engineering is to provide students with programs of study leading to a comprehensive education designed to prepare them for, and support them in, careers in engineering and related professions. The goals of the College are to:

• Provide undergraduate education in computer science and selected traditional engineering disciplines.
• Strengthen the engineering program by implementing changes based on continuous assessment.
• Serve society by providing continuing support to graduates, industry, the profession, and the community.
• Provide graduate education and research opportunities in selected areas.

To accomplish these goals, Educational Objectives have been established by each department.

Accreditation
The undergraduate programs in Civil Engineering, Electrical Engineering, Nuclear Engineering and Mechanical Engineering are accredited by the Engineering Accreditation Commission of ABET, Inc., 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 - telephone: (410) 347-7700.
The undergraduate program in Computer Science is accredited by the Computing Accreditation Commission of ABET, Inc., 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 - telephone: (410) 347-7700.

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 graduates are successfully employed in many areas, and many have chosen to continue advanced studies in a wide variety of specialized engineering disciplines.

Each student entering an engineering program is assigned a faculty advisor to guarantee an appropriate plan of study and to insure 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 College recommends that students entering an engineering or computer science 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.

College of Engineering
Academic Rules
1. A student who fails the same engineering or computer science course (any course offered by the College of Engineering) two or more times may be dismissed from the College contingent upon review by the appropriate College committee.
2. Students who have been dismissed from the college may not enroll in engineering or computer science courses prior to readmission.
3. A student who enrolls in an engineering or computer science 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 College articulation and/or transfer credit review criteria. The College 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 College.
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 College 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/computer science 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 College of Engineering administers programs leading to the Master of Science in Engineering and the Ph.D. The M.S. program comprises majors in Nuclear Science and Engineering, Measurement and Control Engineering, Environmental Engineering, Civil Engineering and Mechanical Engineering. The Ph.D. is available in Engineering and Applied Science. For more
information, see the Graduate Catalog. Additional graduate programs are available through interdisciplinary majors with mathematics and the physical sciences.

**General Education Requirements (38 or 43 cr)**

Students earning the Bachelor of Science (except in Computer Science) must complete the General Education Requirements as follows. See the Computer Science section for instructions specific to that major.

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<tr>
<th>Goal</th>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Goal 1</td>
<td>ENGL 102, Critical Reading and Writing</td>
<td>3 cr</td>
</tr>
<tr>
<td>Goal 2</td>
<td>COMM 101, Principles of Speech</td>
<td>3 cr</td>
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<tr>
<td>Goal 3</td>
<td>MATH 170, Calculus I</td>
<td>4 cr</td>
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<tr>
<td>Goal 4</td>
<td>Met via 12-credit policy in physical sciences</td>
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<tr>
<td>Goal 5</td>
<td>CHEM 111, General Chemistry</td>
<td>5 cr</td>
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<td></td>
<td>PHYS 211, 212</td>
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<td></td>
<td>Engineering Physics</td>
<td>8 cr</td>
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</tbody>
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Any two of Goals 6, 7, and 8: 6 cr
Any three of Goals 9, 10 (A or B), 11 and 12: 9 or 14 cr

### Engineering Courses

**ENGR 105 Engineering Graphics 2 credits.** Engineering drawing emphasizing projections, sketching and 3-D visualization. Introduction to CAD with civil, electrical and mechanical engineering applications. PREREQ: MATH 147 or equivalent. F, S

**ENGR 120 Introduction to Engineering 2 credits.** Introduction to engineering problem solving, engineering design, analysis of contemporary societal issues and methods of presenting engineering information. Design projects and/or presentations of current engineering challenges. F, S

**ENGR 165 Structured Programming 2 credits.** Introduces concepts of structured programming via top-down design concepts, in an interpreted programming environment. Covers conditionals, loop structures, function modules, array processing, structures, input and output of data, and graphical visualization, with applications to engineering problems. PREREQ OR COREQ: MATH 147. F, S

**ENGR 166 Symbolic Programming 1 credit.** Introduces a symbolic programming language, with emphasis on algebraic, calculus, and linear algebraic manipulations and visualization, with engineering applications. PREREQ: MATH 170. PREREQ OR COREQ: ENGR 165. F

**ENGR 167 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. PREREQ OR COREQ: ENGR 165. S

**ENGR 190 Energy and Nuclear Power 2 credits.** Energy sources, distribution, and use. Environmental effects. Development of alternative energy sources. PREREQ: MATH 147 or equivalent. F

**ENGR 210 Engineering Statics 3 credits.** Concepts of force vectors and equilibrium with emphasis on free body diagrams. Trusses, beams, frames, centroids, fluid statics, and friction. PREREQ: ENGR 120. COREQ: ENGR 105 or ME 105; PHYS 211, and MATH 175. F, S

**ENGR 220 Engineering Dynamics 3 credits.** Principles of kinetics. Angular and linear displacement, velocity, and acceleration analysis. Rigid bodies in motion and types of motion. Application of principles of force-mass acceleration, work-kinetic energy, and impulse-momentum to solution of problems of force systems acting on moving particles and rigid bodies. PREREQ: ENGR 210. F, S

**ENGR 222 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 111, CHEM 111L, and ENGL 102. F, S

**ENGR 224 Materials and Measurements Laboratory 1 credit.** Laboratory measurement of material properties. COREQ: ENGR 223. F, S

**ENGR 307 Thermodynamics 3 credits.** Fundamental concepts of thermal energy equations. Applications to ideal and real gases, liquids, and solids in static and transient systems. PREREQ: ENGR 220 and PHYS 212. F

**ENGR 350 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. PREREQ: ENGR 210, ENGR 223, and ENGR 224. F, S

**ENGR 360 Engineering Economics 2 credits.** Economic analysis and comparison of engineering alternatives by annual cost, present and future value, and rate of return methods. Study of cost factors upon which management decisions are based. PREREQ: Junior standing in Engineering. F, S

**ENGR 361 Engineering Economics and Management 3 credits.** Economic analysis and comparison of engineering alternatives by annual cost, present and future value, 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

**ENGR 364 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. Stress engineering applications and programming projects. PREREQ: ENGR 165 or CS 181; MATH 240, MATH 275, and MATH 360. F

**ENGR 392 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 400 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 415 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 analogues. Laboratory work required. PREREQ: ME 341 and ENGR 350. D

**ENGR 421 Advanced Engineering Mathematics 1 credits.** Analysis of complex linear and nonlinear engineering systems using advanced techniques including Laplace transforms, Fourier series and classical partial differential equations. Cross-listed as MATH 421. PREREQ: MATH 360, F

**ENGR 422 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. Cross-listed as MATH 422. PREREQ: ENGR 421 or MATH 421. S

**ENGR 478 Probabilistic Risk Assessment 3 credits.** Probabilistic methods applied to analysis and design. Setting probabilistic design objectives and calculating probabilistic performance emphasized. PREREQ: ENGR 364, MATH 360 and Senior standing in Engineering. D

**ENGR 481 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

**ENGR 492 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

**ENGR 496A Project Design I 3 credits.** Semester one of a two semester sequence dealing with the conceptual design of multi-disciplinary projects requiring multi-disciplinary teams. Cross-listed as CS 496A. PREREQ: Approval of application for admission to course. F

**ENGR 496B Project Design II 3 credits.** Continuation of design sequence dealing with the design, analysis, implementation, and consequences of multi-disciplinary projects. Cross-listed as CS 496B. PREREQ: ENGR 496A. S
Civil and Environmental Engineering Department

Chair and Professor: Zoghi
Professors: Ebrahimpour, Leung, Sadid, Sato
Assistant Professor: Savage
Lecturer: Mahar

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.

Declaring a Civil Engineering Major
Prior to formally declaring Civil Engineering as their major, students are classified as “pre-engineering” students. To become eligible to declare the Civil Engineering major, the student must complete at least 7 of the “key courses” listed below with a minimum grade of “C-” (C minus) in the 7 courses, and must have at least a 2.0 GPA, both in the key courses and overall. No key course may be repeated more than twice. 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 300 or above). The student will not be allowed to register for any Civil Engineering upper division course until the declaration has been approved.

Key Courses:

- MATH 170 Calculus I 4 cr
- MATH 175 Calculus II 4 cr
- CHEM 111, 111L General Chemistry I, and Lab 5 cr
- PHYS 211 Engineering Physics 4 cr
- PHYS 212 Engineering Physics 4 cr
- CHEM 112, 112L General Chemistry II, and Lab 4 cr
- ENGR 105 Engineering Graphics 2 cr
- ENGR 120 Introduction to Engineering 2 cr
- ENGR 165 Structured Programming 2 cr
- ENGR 210 Engineering Statics 3 cr
- ENGR 223, 224 Materials and Measurements, and Lab 4 cr
- EE 240 Introduction to Electrical Circuits 3 cr

Bachelor of Science in Civil Engineering

Including the General Education Requirements listed earlier (38 or 43 credits), the program of study for the Bachelor of Science in Civil Engineering degree totals 133 or 138 credits as follows:

Mathematics and Engineering Core Courses (42 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 175</td>
<td>Calculus II</td>
<td>4 cr</td>
</tr>
<tr>
<td>MATH 240</td>
<td>Linear Algebra</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 360</td>
<td>Differential Equations</td>
<td>3 cr</td>
</tr>
<tr>
<td>EE 240</td>
<td>Introduction to Circuits</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGR 105</td>
<td>Engineering Graphics</td>
<td>2 cr</td>
</tr>
<tr>
<td>ENGR 120</td>
<td>Introduction to Engineering</td>
<td>2 cr</td>
</tr>
<tr>
<td>ENGR 165</td>
<td>Structured Programming</td>
<td>2 cr</td>
</tr>
<tr>
<td>ENGR 167</td>
<td>Engineering and Scientific</td>
<td>1 cr</td>
</tr>
<tr>
<td>ENGR 210</td>
<td>Engineering Statics</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGR 220</td>
<td>Engineering Dynamics</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGR 223</td>
<td>Materials and Measurements,</td>
<td>4 cr</td>
</tr>
<tr>
<td>ENGR 307</td>
<td>Thermodynamics</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGR 361</td>
<td>Engineering Economics and</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGR 496A</td>
<td>Project Design I</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGR 496B</td>
<td>Project Design II</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Other Engineering and Mathematics Courses (38 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR 350</td>
<td>Mechanics of Materials</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 352</td>
<td>Introduction to Probability</td>
<td>3 cr</td>
</tr>
<tr>
<td>CE 301</td>
<td>Surveying</td>
<td>3 cr</td>
</tr>
<tr>
<td>CE 332</td>
<td>Basic Geotechnics</td>
<td>3 cr</td>
</tr>
<tr>
<td>CE 351</td>
<td>Engineering Hydrology</td>
<td>2 cr</td>
</tr>
<tr>
<td>CE 362</td>
<td>Structural Analysis</td>
<td>4 cr</td>
</tr>
<tr>
<td>CE 434</td>
<td>Geotechnical Design</td>
<td>3 cr</td>
</tr>
<tr>
<td>CE 435</td>
<td>Hydraulic Design</td>
<td>3 cr</td>
</tr>
<tr>
<td>CE 436</td>
<td>Transportation Engineering</td>
<td>3 cr</td>
</tr>
<tr>
<td>CE 437</td>
<td>Geotechnical Engineering</td>
<td>1 cr</td>
</tr>
<tr>
<td>CE 462</td>
<td>Design of Steel Structures</td>
<td>3 cr</td>
</tr>
<tr>
<td>CE 464</td>
<td>Design of Concrete Structures</td>
<td>3 cr</td>
</tr>
<tr>
<td>CE 467</td>
<td>Structural Engineering</td>
<td>1 cr</td>
</tr>
<tr>
<td>ME 341</td>
<td>Fluid Mechanics</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Additional Requirements (15 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVE 408</td>
<td>Water and Wastewater Quality</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENVE 410</td>
<td>Introduction to Environmental Engineering</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

* List of approved courses is available from the College of Engineering office.

Civil Engineering Courses

CE 301 Surveying 3 credits. Fundamental principles of surveying. Electronic and conventional angle and distance measurement, leveling traversing, stadia, solar observation, surveying computations, mapping. Application to engineering, geology and architecture. PREREQ: MATH 147 or equivalent. F, D


CE 351 Engineering Hydrology 2 credits. Quantitative descriptions of hydrologic processes and dynamics for the understanding and prediction of precipitation, storm water runoff, groundwater flow, flood routing, and water quality. COREQ ME 341. S

CE 362 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-hr problem session a week. PREREQ: ENGR 350 and MATH 240. F

CE 431 Advanced Mechanics of Solids 3 credits. An introduction to elasticity, plasticity, and energy foundations, stability, plates. PREREQ: ENGR 350 and MATH 360. F

CE 434 Geotechnical Design 3 credits. Application of soil mechanics to design of foundations, retaining wall, stable slopes, buried conduits and pavement structures. Computer methods utilized. PREREQ: ENGR 350 and CE 332. F

CE 435 Hydraulic Design 3 credits. Hydraulic design of water control and transport structures, pipelines, and distribution systems. Computer methods utilized. PREREQ: CE 351. F

CE 436 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 224 and CE 301. COREQ: CE 332. S

CE 437 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 351. F

CE 454 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. Cross-listed as GEOL 454. COREQ: GEOL 314 or CE 332. D
Environmental Engineering Courses

ENVE g404 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: Permission of major advisor. F

ENVE g408 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 111 and CHEM 111L or equivalent. S, D

ENVE g409 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. COREQ: ENVE g408. D

ENVE g410 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 g408 or equivalent. F

ENVE g430 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 and Computer Science

Interim Chair and Professor: Mousavinezhad
Interim Associate Chair: Naidu
Professors: Beard, Bosworth, Schou, Stuffle
Associate Professor: Kantabutra
Assistant Professors: Chiu, Pan, Tappan
Associate Lecturer: Hart
Affiliate Faculty: Rieger, Wolper

Educational Objectives for Degree Program in Electrical Engineering

The undergraduate program in Electrical Engineering (EE) is accredited by the Engineering Accreditation Commission of ABET, Inc., 111 Market Place, Suite 1050, Baltimore, MD 21202-4012; telephone: (410) 347-7700. The following EE Program Educational Objectives have been established:

- **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.

Educational Objectives for Degree Program in Computer Science

The goal of the Computer Science Department at Idaho State University is to provide students with a broad, yet rigorous Computer Science education, with emphasis in operating systems, computer organization and
architecture, data structures and algorithms, software implementation, programming languages, and project management.

Graduates earning a Bachelor of Science in the Computer Science program will have:

- exposure to Computer Science applications in scientific computations, engineering, and business.
- the requisite qualifications for obtaining employment as a Computer Scientist in industry, business, or government.
- awareness and commitment to their ethical and social responsibilities. They will have an understanding that life-long learning is an integral part of personal, professional and social interaction.
- the requisite qualifications for pursuing an advanced degree in Computer Science or a related scientific or engineering field.

### 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 College of Engineering Office) and transcripts as soon as possible (sophomore year) – and will not be allowed to register for any College of Engineering upper division course (i.e. those numbered 300 or above) until officially declared an Electrical Engineering major.

### Key Courses:

<table>
<thead>
<tr>
<th>Fall Semester Freshman Year</th>
<th>Spring Semester Freshman Year</th>
<th>Fall Semester Sophomore Year</th>
<th>Spring Semester Sophomore Year</th>
<th>Fall Semester Junior Year</th>
<th>Spring Semester Junior Year</th>
<th>Fall Semester Senior Year</th>
<th>Spring Semester Senior Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR 360</td>
<td>MAC 220</td>
<td>COMM 101</td>
<td>MAC 310</td>
<td>CS 480</td>
<td>EE 429</td>
<td>ENGR 496A</td>
<td>EE 429, g429L</td>
</tr>
<tr>
<td>MATH 360</td>
<td>ENGR 360</td>
<td>EE 473</td>
<td>ENGR 496A</td>
<td>CS 480</td>
<td>EE 429</td>
<td>ENGR 496B</td>
<td>EE 429, g429L</td>
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<td>Electrical Devices, and Lab</td>
<td>Electrical Devices, and Lab</td>
<td>Computer Science and Organization</td>
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<td>Advanced Electronic Systems, and Lab</td>
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<td>ENGR 360</td>
<td>EE 473</td>
<td>ENGR 496A</td>
<td>CS 480</td>
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<td>Advanced Electronic Systems, and Lab</td>
</tr>
</tbody>
</table>

### Bachelor of Science in Electrical Engineering

#### Electrical Engineering Degree Requirements

Including the University's General Education Requirements listed earlier (38 or 43 credits), the program of study for the Bachelor of Science in Electrical Engineering degree totals 129 or 134 credits as follows:

**Science, Mathematics and Engineering Core Courses (44 credits):**

| CS 181, 181L | Computer Science and Programming I, and Lab 3 cr |
| CS 182, 182L | Computer Science and Programming II, and Lab 3 cr |
| CS/MATH 187 | Applied Discrete Structures 3 cr |
| ENGL 307 | Professional and Technical Writing 3 cr |
| MATH 175 | Calculus II 4 cr |
| MATH 240 | Linear Algebra 3 cr |
| MATH 275 | Calculus III 4 cr |
| MATH 360 | Differential Equations 3 cr |
| EE 240 | Introduction to Electrical Circuits 3 cr |
| EE 340 | Fundamentals of Electrical Devices 3 cr |
| EE 342 | Fundamentals of Electrical Devices Laboratory 1 cr |
| ENGR 360 | Engineering Economics 2 cr |
| EE g416 | Applied Engineering Methods 3 cr |
| ENGR 496A | Project Design I 3 cr |
| ENGR 496B | Project Design II 3 cr |

**College of Engineering Required Courses (47 credits):**

| EE 274 | Introduction to Digital Systems 3 cr |
| EE 275 | Introduction to Digital Systems Laboratory 1 cr |
| EE 325 | Electromagnetics 4 cr |
| EE 329 | Introduction to Electronics 3 cr |
| EE 345 | Signals and Systems 3 cr |
| EE 400 | Electrical Engineering Senior Seminar 1 cr |
| EE g418 | Communication Systems 3 cr |
| EE g427, g427L | Embedded Systems Engineering, and Lab 3 cr |
| EE g429, g429L | Advanced Electronics, and Lab 3 cr |
| EE g472, g472L | Electrical Machines and Power, and Lab 3 cr |
| EE g473 | Automatic Control Systems 3 cr |
| EE g475 | Digital Signal Processing 3 cr |
| EE g484 | Signal Processing Laboratory 1 cr |
| CS g475 | Computer Architecture and Organization 3 cr |

**IN ADDITION**

| EE Electives* 6 cr |

*List of approved courses is available from the College of Engineering office.*
Declaring a Computer Science Major

Prior to declaring the major, a student is classified as a "pre-computer science" student. Students should declare their major as soon as possible, as enrollment in upper division computer science courses (i.e., those numbered 300 or above) is contingent upon that declaration. A student pursuing a computer science degree will not be allowed credit for any College of Engineering upper division course until a declaration of computer science major form has been filed with the College. Students must also agree to complete ENGL 307, Professional and Technical Writing, within the first year of declaring the Computer Science major.

Key Courses

Mathematics:
- MATH 170: Calculus I (4 cr)
- MATH 175: Calculus II (4 cr)
- MATH 240: Linear Algebra (3 cr)

Chemistry:
- CHEM 111, 111L, and CHEM 112, 112L: General Chemistry I, II, and Labs (9 cr) OR
- PHYS 211-214: Engineering Physics I, II, and Labs (10 cr)

Physics:
- PHYS 211, 213, 212, and 214: Engineering Physics I, II, and Labs (10 cr)

Computer Science:
- CS 181, 181L: Computer Science and Programming I, and Lab (3 cr)
- CS 182, 182L: Computer Science and Programming II, and Lab (3 cr)
- CS/MATH 187: Applied Discrete Structures (3 cr)
- CS 263: Advanced Object-oriented Programming (3 cr)
- CS 282: Advanced Computer Programming (3 cr)
- CS 321: Fundamentals of Software Engineering (3 cr)
- CS 385: Data Structures and Algorithm Analysis I (3 cr)
- CS 386: Data Structures and Algorithm Analysis II (3 cr)
- CS 451: Database Theory and Implementation (3 cr)
- CS 460: Comparative Programming Languages (3 cr)
- CS 475: Computer Architecture and Organization (3 cr)
- CS 477: Operating Systems (3 cr)
- CS 491: Computer Science and Ethical-Social Issues (3 cr)
- CS 496A: Project Design I (3 cr)
- CS 496B: Project Design II (3 cr)
- EE 274: Introduction to Digital Systems (3 cr)
- ENGR 360: Engineering Economics (2 cr)
- ENGL 307: Technical Writing (3 cr)

Bachelor of Science in Computer Science

The program of study for the Bachelor of Science in Computer Science degree totals 130 credits as follows:

General Education and Mathematics Requirements (40-46 credits minimum)

Students pursuing a Bachelor of Science in Computer Science must complete the University's General Education Requirements using the following courses:

| Goal 1 | ENGL 102, Critical Reading and Writing | 3 cr |

Additional Mathematics Courses (10 credits):
- MATH 175: Calculus II (4 cr)
- MATH 240: Linear Algebra (3 cr)
- MATH 352: Introduction to Probability (3 cr)

Major Core Requirements (53 credits)

Computer Science students must complete the following group of core courses:

- CS 181, 181L: Computer Science and Programming I, and Lab (3 cr)
- CS 182, 182L: Computer Science and Programming II, and Lab (3 cr)
- CS/MATH 187: Applied Discrete Structures (3 cr)
- CS 263: Advanced Object-oriented Programming (3 cr)
- CS 282: Advanced Computer Programming (3 cr)
- CS 321: Fundamentals of Software Engineering (3 cr)
- CS 385: Data Structures and Algorithm Analysis I (3 cr)
- CS 386: Data Structures and Algorithm Analysis II (3 cr)
- CS 451: Database Theory and Implementation (3 cr)
- CS 460: Comparative Programming Languages (3 cr)
- CS 475: Computer Architecture and Organization (3 cr)
- CS 477: Operating Systems (3 cr)
- CS 491: Computer Science and Ethical-Social Issues (3 cr)
- CS 496A: Project Design I (3 cr)
- CS 496B: Project Design II (3 cr)
- EE 274: Introduction to Digital Systems (3 cr)
- ENGR 360: Engineering Economics (2 cr)
- ENGL 307: Technical Writing (3 cr)

Major Elective Requirements (12 credits):

Computer Science students must complete twelve credits of upper division major elective coursework, chosen from the following list:

- CIS g410: Information Security and Privacy (3 cr)
- CIS g485: Network and Communication Systems (3 cr)
- CIS g487: Software Systems Study of the Software Implementation Process (3 cr)
- CIS g491: Seminar in Computer Information Systems (3 cr)
- CS 331: Web Programming (3 cr)
- CS 342: Computer Graphics (3 cr)
- CS 343: Neural Networks (3 cr)

Minor in Computer Science

Students receiving degrees in all colleges may satisfy the requirements for a Minor in Computer Science (CS) by completing the following courses. Students pursuing this minor must consult with a CS advisor early in their program to complete a Program of Study Agreement.

Required Courses:
- CS 181, 181L: Computer Science and Programming I, and Lab (3 cr)
- CS 182, 182L: Computer Science and Programming II, and Lab (3 cr)
- CS/MATH 187: Applied Discrete Structures (3 cr)
- CS 263: Advanced Object-oriented Programming (3 cr)
Electrical Engineering Courses


EE 274 Introduction to Digital Systems 3 credits. Number systems; Boolean algebra fundamentals; system reduction, combinational and sequential logic. PREREQ: CS/MATH 187. COREQ: EE 275. F

EE 275 Introduction to Digital Systems Laboratory 1 credit. Laboratory experience in the construction of basic digital logic circuits and state machines. COREQ: EE 274. F

EE 325 Electromagnetics 4 credits. Vectors and fields, electrostatics, magnetostatics, electrodynamic Maxwell’s equations, boundary value problems, plane and guided waves. PREREQ: EE 340, MATH 275, and PHYS 212; MATH 360 recommended. F

EE 329 Introduction to Electronics 3 credits. Introduction to semiconductor theory, diodes, bipolar junction transistors and amplifiers, metal-oxide-semiconductor field effect transistors and amplifiers, and frequency response. COREQ: EE 340. S


EE 342 Fundamentals of Electrical Devices Laboratory 1 credit. Laboratory course emphasizing basic electrical measurements and methods. COREQ: EE 340. S

EE 345 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 340. COREQ: MATH 360. F

EE 400 Senior Seminar 1 credit. Current topics in Electrical Engineering. PREREQ: Senior standing in Electrical Engineering. F

EE 413 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 analyses, optimization. PREREQ: CS 181, EE 340, and EE 342. D

EE 416 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 170. S

EE 418 Communication Systems 3 credits. Basic principles of analysis and design of modern analog and digital communication systems, including transmission and reception. PREREQ: EE 329 and EE 345. S

EE 427 Embedded Systems Engineering 2 credits. Integration of algorithms, software and hardware to design real-time and embedded systems for signal processing and control. PREREQ: CS g475. COREQ: EE g427L. S

EE 427L Embedded Systems Engineering Laboratory 1 credit. Design and implement embedded signal processing and control systems through the integration of algorithms, software, and hardware. COREQ: EE g427. S

EE 429 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 329. COREQ: EE g429L. F

EE 429L Advanced Electronics Lab 1 credit. Transistor biasing, amplifiers and other basic analog circuit designs. COREQ: EE g429. F

EE 432 Introduction to VLSI Design 3 credits. Photolithography, CMOS fabrication, MOSFET operation, CMOS passive elements, design rules and layout, CAD tools for IC design, inverters, static logic and transmission gates, dynamic logic. PREREQ: EE 329. D

EE 433 Mixed Signal Design 3 credits. Analog IC design. Passive components, parasitic elements, component matching, IC layout techniques, amplifiers, current sources, comparators, op amps, noise, switched capacitor circuits. Includes lab work using design tools. PREREQ: EE g432. D

EE 472 Electrical Machines and Power 3 credits. Theory and application of electrical machinery and transformers. Power and energy relationships in power systems. PREREQ: EE 340 and EE 342. COREQ: EE g472L. F

EE 472L 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. COREQ: EE g472. F

EE 473 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 345 or ME g405. S


EE 475 Digital Signal Processing 3 credits. Discrete, fast Fourier and Z-transforms, correlation, convolution, finite and infinite impulse response digital filter design, spectral analysis and adaptive digital filters. PREREQ: EE 345. COREQ: EE g484. S

EE 476 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 212 or equivalent. D

EE 478 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 212 or equivalent. D

EE 479 Advanced Semiconductor Devices 3 credits. Review of semiconductor band theory. Opto-electronics, quantum mechanics, heterojunctions, power and microwave semiconductor devices. PREREQ: EE g478 or equivalent. D

EE 482 Principles of Power Electronics 3 credits. Introduction to steady state converter modeling and analysis. Principles of converter dynamics and control including controller design. PREREQ: EE 329. COREQ: EE g473. D

EE 484 Signal Processing Laboratory 1 credit. Design finite and infinite response digital filters in digital signal processing applications. COREQ: EE g475. S

EE 491 Digital Control Systems 3 credits. Analysis and design of digital control systems. Z-transforms, transient response, stability, root locus, frequency response, design, state-space and state feedback. PREREQ: EE g473. D

Computer Science Courses

CS 181 Computer Science and Programming I 2 credits. Problem solving methods and algorithm development with an emphasis on programming style. Lecture and laboratory. COREQ: CS 181L; MATH 147 or MATH 160. F, S

CS 181L Computer Science and Programming I Lab 1 credit. Assignments to apply principles from CS 181. COREQ: CS 181. F, S

CS 182 Computer Science and Programming II 2 credits. Continuation of CS 181, including such topics as data structures, sorts, searches, recursion, and object-oriented programming concepts. PREREQ: CS 181. PREREQ OR COREQ: CS 187 and MATH 170. COREQ: CS 182L. F, S

CS 182L Computer Science and Programming II Lab 1 credit. Assignments to apply principles from CS 182. COREQ: CS 182. F, S

CS 187 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. Cross-listed as MATH 187. PREREQ: CS 181. S
CS 263 Advanced Object-oriented Programming 3 credits. Advanced programming in a modern object-oriented language, different from the one used in CS 181 and CS 182; philosophy, application, and examples of object-oriented concepts and techniques; comprehensive survey of software-engineering design patterns. PREREQ: CS 182. S

CS 282 Advanced Computer Programming 3 credits. Further supervised programming experience, covering advanced features of the language used in CS 182. Includes the use of a Unix-like operating system. PREREQ: CS 182. F

CS 321 Fundamentals of Software Engineering 3 credits. Formal approaches and tools for conceiving, designing, building, testing, deploying, maintaining, and documenting large software systems; software lifecycle models; project and team management; verification and validation techniques; legal and ethical issues. Includes a major software development project. PREREQ: CS 263 or CS 282, and admission to major. F

CS 331 Web Programming 3 credits. HTML, server- and client-side programming, web-based database programming. PREREQ: CS 263. R

CS 342 Computer 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 263 and MATH 240. R2

CS 343 Neural Networks 3 credits. Survey of neural network architectures and applications. Training algorithms, multi-layer perceptrons, backpropagation, learning and generalization, Hopfield and recurrent nets. PREREQ: CS 263, CS/MATH 187, MATH 275, and MATH 352. R2

CS 344 Artificial Intelligence 3 credits. Fundamental principles and techniques of artificial intelligence systems; search strategies; knowledge acquisition and representation; commonsense reasoning; planning; machine learning; expert systems; intelligent agents and multi-agent systems. COREQ: CS 386. R2

CS 385 Data Structures and Algorithm Analysis I 3 credits. Analysis and design of non-numerical algorithms which act on data structures. PREREQ: CS 263 or CS 282, and admission to major, and either CS/MATH 187 or MATH 240. F

CS 386 Data Structures and Algorithm Analysis II 3 credits. Continuation of CS 385. PREREQ: CS 385. S

CS g420 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 385. R2

CS g442 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. COREQ: CS 385. R2

CS g444 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 187, MATH 352, and MATH 360. R2

CS g445 Data Compression 3 credits. A survey of modern techniques of data compression, both lossy and loss-less, and encryption. COREQ: CS 386. R2

CS g451 Database Theory and Implementation 3 credits. Data models, relational algebra, SQL, data storage, index structures, query compilation and execution, concurrency control. PREREQ: CS 263 and CS 385. COREQ: CS 386. S

CS g460 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 385. COREQ: CS g475. F

CS g470 Parallel Processing 3 credits. Topics in high-performance computing: parallel architectures, SIMD, MIND, S, NUMA models, message passing, cache coherency issues, MPI, PVM, parallel programming languages, cluster and grid approaches, applications and experience programming on a cluster. COREQ: CS 385. R2

CS g475 Computer Architecture and Organization 3 credits. Design, implementation, and performance evaluation of modern computer systems; instruction sets; datapath and control optimizations; single-cycle, multiple-cycle, and pipelined processors; hazard detection and resolution; memory hierarchies; peripheral devices. PREREQ: EE 274. F

CS g477 Operating Systems 3 credits. Processes description and control, threads, concurrency, memory management, scheduling, I/O and files, distributed systems, security, networking. PREREQ: CS 263 and CS g475. S

CS g480 Theory of Computation 3 credits. Finite representations of languages, deterministic and nondeterministic finite automata, context free languages, regular languages, parsing, Turing Machines, Church’s Thesis, uncomputability, computational complexity classes. COREQ: CS 385. R2

CS g481 Compilers and Lexical Analysis 3 credits. Covers lexical analysis, syntax analysis, top-down, bottom-up, and LR parsing, syntax-directed translation, type checking, code generation and optimization, writing a compiler. PREREQ OR COREQ: CS 386. R2

CS g487 Topics in Computer Science 3 credits. Selected topics in Computer Science will be chosen depending on the instructor’s interests. PREREQ: CS 386. D

CS g491 Computer Science Ethical-Societal Issues 3 credits. Investigate various ethical issues arising in the profession, ranging from research to commercial settings. The societal impacts of computing and its prevalence in all aspects of the modern world are investigated. Seminar format: students will read papers, make oral presentations, conduct class discussion, and submit written reports. F

CS 496A Project Design I 3 credits. Semester one of a two semester sequence dealing with the conceptual design of multi-disciplinary projects requiring multi-disciplinary teams. Cross-listed as ENGR 496A. PREREQ: Approval of application for admission to course. F

CS 496B Project Design II 3 credits. Continuation of design sequence dealing with the design, analysis, implementation, and consequences of multi-disciplinary projects. Cross-listed as ENGR 496B. PREREQ: CS 496A. S

Department of Mechanical and Nuclear Engineering

Interim Chair and Professor: Imel
Interim Associate Chair and Professor: Naidu
Professors: Jacobsen, Kunze
Research Professor and Director of Institute of Nuclear Science and Engineering: Lineberry
Associate Professors: Bennion, Schoen, Wabrek, Williams
Research Associate Professors: Hartmann, Paviet-Hartmann
Assistant Professors: Chen, Dunzik-Gougar, Perez
Associate Lecturer: Holf
Assistant Lecturer: Gansauge

Educational Objectives for Degree Program in Mechanical Engineering

Five years after they graduate, our Mechanical Engineering graduates should:

- **Technical Competency** – demonstrate communication and technical skill to formulate and solve problems.

- **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 earlier (38 or 43 credits), the program of study for the Bachelor of Science in Mechanical Engineering degree totals a minimum of 128 credits as follows:

### Additional Mathematics Course Requirements (14 credits):
- MATH 175 Calculus II 4 cr
- MATH 240 Linear Algebra 3 cr
- MATH 275 Calculus III 4 cr
- MATH 360 Differential Equations 3 cr

### Mechanical Engineering Course Requirements (77 credits):
- ENGR 120 Introduction to Engineering 2 cr
- ENGR 165 Structured Programming 2 cr
- ENGR 166 Symbolic Programming 1 cr
- ENGR 210 Engineering Statics 3 cr
- ENGR 220 Engineering Dynamics 3 cr
- ENGR 223, 224 Materials and Measurements, and Lab 4 cr
- EE 240 Introduction to Electrical Circuits 3 cr
- ENGR 307 Thermodynamics 3 cr
- EE 340, 342 Fundamentals of Electrical Devices, and Lab 4 cr
- ENGR 350 Mechanics of Materials 3 cr
- ENGR 360 Engineering Economics 2 cr
- ENGR 496A Project Design I 3 cr
- ENGR 496B Project Design II 3 cr
- ME 105 Solid Modeling 2 cr
- ME 341 Fluid Mechanics 3 cr
- ME 416 Thermal Power Cycles 3 cr
- ME 443 Thermal Fluids Laboratory 1 cr
- ME 476 Heat Transfer 3 cr
- ME 320 Kinematics and Dynamics 3 cr
- ME 323 Machine Design 3 cr
- ME g405 Measurement Systems Design 3 cr
- ME g406 Measurement Systems Laboratory 1 cr
- ME g440 Mechanical Vibrations 3 cr
- ME 465 Thermal Fluid Systems Design 3 cr
- ME electives*** 9 cr
- Free Electives 3 cr

*** Students are to consult with their advisors and choose courses which will complement their engineering education.

### 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. 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

1. Prior to formally declaring Nuclear Engineering as their major, students are classified as "pre-engineering" students. To become eligible to declare the major, the student must complete at least 10 of the 12 "key courses" listed below with a minimum grade of "C-" in each course, and must have at least a 2.0 GPA, both in the key courses and overall. (Note: ENGR 165/167 and ENGR 223/224 are considered single key courses that are taken concurrently.)

### Key Courses
- MATH 170 Calculus I 4 cr
- MATH 175 Calculus II 4 cr
- CHEM 111, 111L General Chemistry I, and Lab 5 cr
- PHYS 211, 212 Engineering Physics I, II 8 cr
- ENGR 105 Engineering Graphics 2 cr
- ENGR 120 Introduction to Engineering 2 cr
- ENGR 165, 167 Structured Programming, and Engineering and Scientific Programming 3 cr
- ENGR 210 Engineering Statics 3 cr
- ENGR 220 Engineering Dynamics 3 cr
- ENGR 223, 224 Materials and Measurements, and Laboratory 4 cr
- EE 240 Introduction to Electrical Circuits 3 cr

2. 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.

3. 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 300 or above). The student will not be allowed to register for any College of Engineering upper-division course until the declaration has been approved.

Bachelor of Science in Nuclear Engineering

Including the University's General Education Requirements listed earlier (38 or 43 credits), the program of study for the Bachelor of Science in Nuclear Engineering degree totals 138 or 143 credits as follows:

### Additional Mathematics Courses (14 credits)
- MATH 175 Calculus II 4 cr
- MATH 240 Linear Algebra 3 cr
- MATH 275 Calculus III 4 cr
- MATH 360 Differential Equations 3 cr

### Engineering Courses (50 credits)
- ENGR 105 Engineering Graphics 2 cr
- ENGR 120 Introduction to Engineering 2 cr
- ENGR 165 Structured Programming 2 cr
- ENGR 167 Engineering and Scientific Programming 1 cr
- ENGR 190 Energy and Nuclear Power 2 cr
- ENGR 210 Engineering Statics 3 cr
ENGR 220 Engineering Dynamics 3 cr
ENGR 223, 224 Materials and Measurements, and Laboratory 4 cr
EE 240 Introduction to Electrical Circuits 3 cr
ENGR 307 Thermodynamics 3 cr
EE 340 Fundamentals of Electrical Devices 3 cr
EE 342 Fundamentals of Electrical Devices Laboratory 1 cr
ENGR 350 Mechanics of Materials 3 cr
ENGR 361 Engineering Economics and Management 3 cr
ENGR 364 Engineering Numerical Techniques 3 cr
EE 441 Advanced Engineering Mathematics 1 3 cr
ENGR 496A Project Design I 3 cr
ENGR 496B Project Design II 3 cr

Nuclear Engineering Required Courses (27 credits)

ME 341 Fluid Mechanics 3 cr
ME 443 Thermal Fluids Laboratory 1 cr
ME 476 Heat Transfer 3 cr
NE g402 Introduction to Nuclear Engineering 3 cr
NE g419 Energy Systems and Resources 3 cr
NE g445 Neutron Reactions and Transport 3 credits.

Electives (9 credits)
Free Electives 3 cr
NE elective* 3 cr
Upper division engineering elective 3 cr
*A list of approved courses is available from the College of Engineering office.

Mechanical Engineering Courses

ME 105 Solid Modeling 3 credits. Introduction to the fundamentals of Solid Modeling. Sketching, features, modeling, assemblies and drawings. PREREQ: MATH 147. F, S
ME 320 Kinematics and Dynamics of Machinery 3 credits. Kinematic analysis and design of gams, gears, and linkages; velocity, acceleration and force analysis; kinematic synthesis; balancing; analysis by complex numbers; computer-aided analysis and synthesis. PREREQ: ENGR 166, ENGR 220, and MATH 240. F
ME 341 Fluid Mechanics 3 credits. Fluid statics, incompressible fluid flow, open channel flow, compressible fluid flow, pipe flow, flow measurements, pumps, valves, other devices. PREREQ: ENGR 220 and MATH 360. S
ME 353 Manufacturing Processes 3 credits. Production techniques and equipment. Casting, molding, pressure forming, metal removal, joining and assembly, automation and materials handling. Field trips. PREREQ: ENGR 223 and ENGR 224. COREQ: ME 353L. D
ME 355 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: ENGR 220 and MATH 360. D
ME g405 Measurement Systems Design 3 credits. Introduction to instrumentation systems analysis and design, including statistical analysis, system modeling, actuators, transducers, sensors, signal transmission, data acquisition, and signal conditioning. PREREQ: EE 340, EE 342, and MATH 360. F
ME g406 Measurement Systems Laboratory 1 credit.
ME 416 Thermal Power Cycles 3 credits. Application of thermodynamics to design of systems for conversion of thermal energy to power by various power cycles. PREREQ: ENGR 307. F
ME g425 Mechatronics 3 credits. Basic kinematics, sensors, actuators, measurements, electronics, microprocessors, programmable logic controllers, feedback control, robotics and intelligent manufacturing. PREREQ: EE 340, EE 342, and MATH 360. D
ME g440 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 360. PREREQ OR COREQ: ME 323. S
ME 443 Thermal Fluids Laboratory 1 credit. Measurement of thermal and fluid properties, experiments on fluid flow and heat transfer systems. PREREQ: ME 341. COREQ: ME 476. S
ME g451 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 341. D
ME 465 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: ME 476. S

Nuclear Engineering Courses

NE g402 Introduction to Nuclear Engineering 3 credits. Basic nuclear and atomic processes; radioactive decay, binding energy, radiation interactions, reaction cross sections. Neutron diffusion, radiation sources. PREREQ: ENGR 190 and PHYS 212. COREQ: ENGR 307 and MATH 360. F
NE g419 Energy Systems and Resources 3 credits. Fundamentals of conventional and alternative/renewable energy systems. Electrical supply, building HVAC, resources utilized by transportation sector. PREREQ: ENGR 307 and MATH 360. COREQ: EE 340 and EE 342. S
NE g444 Nuclear Fuel Cycles 3 credits. Exploration of the processes associated with nuclear fuel cycles including mining, fabrication, reprocessing, and disposal. Intended primarily as a descriptive course. PREREQ: NE g402. D
NE g445 Neutron Reactions and Transport 3 credits. Physical principles underlying neutron interactions. Multi-region and multi-energy diffusion and transport. Beamport and filter concepts and design. PREREQ: NE g402. COREQ: ENGR 364 and ENGR/MATH g421. S
NE g446 Analysis and Design of 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 g445. F
NE g447 Nuclear Systems Laboratory 1 credit. Techniques of radiation detection and measurements, flux measurements, neutron activation analysis, approach to criticality, Inhour equation, subcritical experiments. PREREQ: NE g445 and PHYS g416. F and D
NE 451 Nuclear Seminar 1 credit. Current topics in nuclear science and engineering. PREREQ: Senior standing or permission of instructor. Graded S/U. S, D
NE g487 Medical Applications in Engineering and Physics 3 credits. Applications of engineering and physics principles, particularly nuclear science, to medicine. Covers radioisotopes, X-ray imaging, magnetic resonance and ultrasound imaging, radiation protection, codes and standards. PREREQ: MATH 360 and PHYS 212. S
Kasiska College of Health Professions

Stephen S. Feit, Ed.D., Interim Dean
Linda Rankin, Ph.D., and
David Sorensen, Ph.D., Assistant Deans

Mission and Goals

The primary mission of the Kasiska college of Health Professions (KCHP) is to enhance the quality of life of the residents of Idaho and the greater community outside of Idaho through the education of students across five dimensions of the health professions: 1) physical, 2) mental, and 3) oral health, 4) rehabilitation and 5) wellness. Our mission is facilitated through excellence in research, community service, teaching and the application of technology, as well as strong leadership on issues related to health professions.

Five Goal Categories have been identified in the KCHP Strategic Plan in order to fulfill the mission of the college: Access, Teaching, Scholarly Activity, Community Service, and Interprofessional Activity.

1. Access: Providing the citizens of Idaho with a wide variety of educational choices within the health professions through addressing availability of programs and resources, student recruitment, marketing and publicity.

2. Teaching: Addressing faculty development, faculty recruitment and retention, and improvement of instructional capabilities.

3. Scholarly Activity: Facilitating and improving faculty and student research and scholarly activity in the health professions.

4. Community Service: Facilitating the interaction of KCHP programs, faculty, staff and students with the general public and the professional communities within Idaho and the country.

5. Interprofessional Activity: Encouraging interaction and collaboration among the college departments, professional disciplines and faculty on projects relating to teaching, research and clinical activities in the health professions.

The Kasiska College of Health Professions is organized into a School of Nursing and several Departments which offer programs of professional education leading to Associate of Applied Science degree in Radiographic Science; Associate of Science degree in Sign Language Studies; Bachelor of Arts degree in Health Education; Bachelor of Science degrees in Dental Hygiene, Dietetics, Educational Interpreting, Health Care Administration, Health Education, Nursing, Radiographic Science, and Speech Pathology and Audiology; Master of Counseling degrees with majors in Marital, Couple, and Family Counseling, Mental Health Counseling, School Counseling, and Student Affairs Counseling; Master of Occupational Therapy, Master of Physician Assistant Studies, Master of Public Health, Master of Science degrees in Deaf Education, Dental Hygiene, Health Education, Nursing, and Speech-Language Pathology; Clinical Doctorate in Audiology; Doctor of Physical Therapy; and a Doctor of Philosophy in Counselor Education and Counseling.

The Dietetic Internship Certificate Program is offered at the postgraduate level. A Post-Master’s Certificate is offered in all Master of Science in Nursing options. Each curriculum combines a core of liberal arts and professional subjects with clinical experience.

The Kasiska College of Health Professions 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 college also administers the Medical Residency Program leading to a certificate in family practice and the Advanced General Dentistry Residency Program leading to a certificate.

For the purpose of providing opportunities for students to obtain appropriate clinical experience, the Department of Dental Hygiene operates the on-campus Dental Hygiene Clinic; the Department of Communication Sciences & Disorders, and Education of the Deaf operates the Speech, Language and Hearing Clinics; the Family Practice Center provides outpatient medical services to the community; the Department of Dental Sciences provides services to the community through Pocatello Family Dentistry; the Department of Counseling operates the Family Education and Counseling Center; the School of Nursing operates the Senior Health Mobile; and the Department of Physical and Occupational Therapy operates the Physical and Occupational Therapy Clinic.

The college delivers outreach Bachelor of Science and Master of Science programs for registered nurses in Twin Falls and Idaho Falls. Outreach programming also includes the Bachelor of Science degrees in Speech Pathology and Audiology; the Master of Counseling degrees in Mental Health Counseling and in Marital, Couple, and Family Counseling; the Master of Science in Nursing, Master of Public Health, Master of Science in Speech-Language Pathology, Bachelor of Science in Nursing, and a Dietetic Internship, all in Boise. The Master of Science in Nursing includes a Family Nurse Practitioner Option, a Nurse leadership Option, a Nurse Education Option, a Clinical Nurse Leader and a Clinical Nurse Specialist Option. All options are offered in Pocatello, Boise, Lewiston, Coeur d’Alene, Twin Falls, and Idaho Falls.

Institute of Rural Health

Research Faculty:
Director and Research Professor: Piland
Research Professors: Stamm, Tivis
Research Assistant Professor and Research Administrator: Kelchner
Research Associate Professor: Larsen
Research Assistant Professors: Beedasy, Philipp, Ramloll

Researchers and Grant Coordinators:
Senior Research Associates: Kirkwood, Spearman
Research Associates: Bodily-Roan, Sandford, Stewart-Burch
Senior Grant Project Coordinator: Cunningham
Grant Project Coordinators: Dahlquist, Forney
Assistant Grant Project Coordinator: Cutler

The Institute of Rural Health, established in 1989, is a University-based research, education, and service organization. Its work spans public health, health professions training, community programming, and mental health areas.

The mission of the Institute of Rural Health is to improve the health of rural communities in Idaho and the Intermountain
Region, as well as the nation and the world through research, education, and service. The Institute is housed in the Kasiska College of Health Professions at Idaho State University.

Contacts:
E-mail: irh@isu.edu
Pocatello Office: (208) 282-4436
Boise Office: (208) 373-1769

School of Nursing
Associate Dean and Director; Associate Professor: Ashton
Professor: Neill
Associate Professors: Arvidson, Molinari, Patillo
Clinical Associate Professors: Hales Reynolds, Miladenka, Murphy
Clinical Assistant Professors: Brook, Damstrom, Goodwin, Hewett, Jardine-Dickerson, Klaus, Marquette, McCarthy, Olsen, Ovitt, Pesnell, Punkoney, Reiland, Renn
Clinical Instructor: Quiroz Emeritae: Jacobson, McRoberts, 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. The program is accredited nationally and approved by the Idaho Board of Nursing. The aim of the School of Nursing is to prepare graduates to function as professional nurses wherever there are people who need nursing services. 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. After an initial period of orientation, graduates are prepared to assume leadership responsibility. Graduates are eligible to write the National Council Licensure Examination for registered nurses (NCLEX-RN). The undergraduate program serves as a foundation for graduate study. Applications and other materials for the School of Nursing are available on the Idaho State University School of Nursing website at http://www.isu.edu/nursing.

A. Traditional Baccalaureate Program
The Traditional Baccalaureate Degree is well-suited to students with no prior nursing experience who are seeking their first degree in nursing. The Traditional program provides learning opportunities for undergraduate students in a variety of classroom and clinical settings to prepare students to take the National Council Licensure Examination Registered Nurse (NCLEX-RN) to secure licensure as a professional nurse. Earning a Baccalaureate degree (BS) in nursing from Idaho State University requires students to earn 128 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 the current admission criteria.

B. Accelerated Program
This is an accelerated program appropriate for people who have already obtained a baccalaureate degree in a field other than nursing. Students will complete coursework which will make them eligible to sit for the RN licensure exam (NCLEX) after completion of the course requirements. The program accepts a maximum of 30 students per cycle.

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.

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.

Licensed Practical Nurses – Bachelor of Science: This is a program appropriate for Licensed Practical Nurses who wish to complete a baccalaureate degree in nursing.

Admission to the Baccalaureate Program
Students are expected to 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 Nursing School website (www.isu.edu/nursing) for the current admission criteria.

1. Prerequisite Courses
Prospective nursing majors must complete the two sets of prerequisite courses listed below, or equivalents, with a grade of “C” (70 percent) or better and a cumulative grade point average of 3.0 or better for all prerequisite courses (failure to do so will result in revocation of program admission). Set A courses are to be completed before applying; Set B may be completed or in progress during the application process.

   a. Set A Prerequisite Courses

   One of the following:
   ANTH 237 Peoples and Cultures of the Old World 3 cr
   ANTH 238 Peoples and Cultures of the New World 3 cr
   ANTH 239 Latino Peoples and Cultures 3 cr
   ANTH 100 General Anthropology* 3 cr
   SOC 101 Introduction to Sociology 3 cr
   *(these fulfill Goal 12, thus goal 9 or 10 still required)

   Plus all of the following:
   BIOL 101,101L Biology I, and Lab 4 cr
   BIOL 221,221L Introductory Microbiology, and Lab 4 cr
   BIOL 301,301L Anatomy and Physiology, and Lab 4 cr
   CHEM 101 Introduction to General Chemistry 3 cr
   CHEM 111,111L General Chemistry I, and Lab 5 cr
   HCA 210 Medical Terminology and Communication 2 cr
   PSYC 101 Introduction to General Psychology 3 cr
   PSYC 225 Child Development 3 cr

   b. Set B Prerequisite Courses:

   CHEM 111,111L General Chemistry I, and Lab 5 cr
   CHEM 102 Introduction to Organic and Biochemistry 3 cr
   CHEM 103 Introduction to General, Organic, and Biochemistry Laboratory 1 cr
   MATH 253 Introduction to Statistics 3 cr
   NTD 340 Nutrition for Health Professionals 3 cr
   NURS 220 Introduction to Professional Nursing 2 cr

2. Application
Students (accelerated, traditional, 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 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, 2009 and the September 15 deadline. The TEAS score is received upon completion of the test. The TEAS may be taken twice only and the higher score submitted for consideration with the application.
ii. TEAS can be taken at the Testing Center in either Pocatello ((208) 282-4907) or Idaho Falls ((208) 282-7750).
iii. The test includes four parts: Reading Comprehension, English Language Usage, Science, and Math. Material is based on 9th-12th grade level.
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 for $37.00 or a combination of the study guide and practice test is available for $58 at http://www.atitesting.com
f. Criminal History Evaluation
g. Current Cardio-pulmonary Resuscitation (CPR) Certification
h. Current Cardiac-pulmonary Resuscitation (CPR) Certification
i. Health Care Education, Employment, and Volunteer Service Resume
j. Proctored Essay
3. Selection Process
Applicant ranking and selection is based upon 4 weighted criteria totaling 100 points:
   a. GPA of Set A prerequisite courses -- up to 40 points;
   b. Score of the Test of Essential Academic Skills (TEAS)--up to 30 points. The “Percentile Rank – Program” score is used for admission ranking;
   c. Health care related formal education, employment, and volunteer service resume--up to 20 points
d. Proctored Essay--up to 10 points.
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 application procedure.

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/), or from the School of Nursing offices in Pocatello (208) 282-2185; Twin Falls (208) 734-4478; and Idaho Falls (208) 529-0185.
b) Registered Nurses may request that prerequisite and requisite courses be waived; request that credit for nursing courses taken in another baccalaureate nursing program be accepted for comparable courses at Idaho State University; or request that they be allowed to receive credit for courses based upon successfully passing NCLEX-RN exams.

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 course grade below a “C” (2.0) and/or
2) Students with a cumulative grade point average below a “C” (2.0).

Students will not be eligible to sit for the NCLEX-RN examination if they do not meet all of the Idaho State University School of Nursing requirements.

Expenses
Students in the School of Nursing will incur certain expenses, such as the cost of transportation for learning experiences, clinical apparel, and lab fees, in addition to the student expenses listed by the university. 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 a graduate program leading to the degree of Master of Science with a major in nursing. See the Graduate Catalog for information.

Bachelor of Science in Nursing

University General Requirements

(Specific Goal Courses Required for Nursing)
Students pursuing the Bachelor of Science degree must complete Goals 1, 2, and 3; Goals 4 and 5, or 12 hours in the physical or 12 hours in the biological sciences; two of Goals 6, 7, and 8; and three of Goals 9, 10A OR 10B, 11 and 12.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 237</td>
<td>Peoples and Cultures of the Old World</td>
<td>3 cr</td>
</tr>
<tr>
<td>ANTH 238</td>
<td>Peoples and Cultures of the New World</td>
<td>3 cr</td>
</tr>
<tr>
<td>ANTH 239</td>
<td>Latino Peoples and Cultures</td>
<td>3 cr</td>
</tr>
<tr>
<td>ANTH 100</td>
<td>General Anthropology*</td>
<td>3 cr</td>
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<tr>
<td>SOC 101</td>
<td>Introduction to Sociology*</td>
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<tr>
<td>BIOL 101,101L</td>
<td>Biology I, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>CHEM 101</td>
<td>Introduction to General Chemistry</td>
<td>3 cr</td>
</tr>
<tr>
<td>CHEM 102,103</td>
<td>Introduction to Organic and Biochemistry, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>MATH 253</td>
<td>Introduction to Statistics</td>
<td>3 cr</td>
</tr>
<tr>
<td>PSYC 101</td>
<td>Introduction to General Psychology</td>
<td>3 cr</td>
</tr>
</tbody>
</table>
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.

**Progression requirements:**

- Students make application 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.
- Students must complete the nursing courses in the prescribed sequence.
- Students must complete all university courses required for the Major in Nursing and all Nursing courses with a grade of “C” or better.

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**TRADITIONAL CURRICULUM PATTERN**

**Freshman (summer semester)**

- BIOL 101L, 101L Introduction to Microbiology and Lab 3 cr
- ENGL 101 Critical Reading and Writing 3 cr
- HCA 210 Medical Terminology and Communication 2 cr
- MATH 108 Intermediate Algebra 3 cr
- TOTAL SUMMER SEMESTER 7 cr

**Freshman (fall semester)**

- BIOL 301, 301L Anatomy and Physiology, and Lab 4 cr
- CHEM 101 Introduction to General Chemistry 3 cr
- CHEM 102, 103 Introduction to Organic and Biochemistry, and Lab 4 cr
- NURS 200 Health Assessment 3 cr
- NURS 204 Concepts of Nursing Practice 4 cr
- TOTAL FALL SEMESTER 15 cr

**Freshman (spring semester)**

- BIOL 221, 221L Introduction to Microbiology, and Lab 4 cr
- CHEM 102, 103L Introduction to Organic and Biochemistry, and Lab 4 cr
- HCA 210 Medical Terminology and Communication 2 cr
- MATH 108 Intermediate Algebra 3 cr
- TOTAL SPRING SEMESTER 14 cr

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**Senior Year**

Three options exist; please consult your advisor for the best option to fit your schedule.

- NURS 412 Nursing Care of Childbearing Families and Women 3 cr
- NURS 413 Nursing Care of Childbearing Families and Women Practicum 2 cr
- NURS 414 Psych-Mental Health Nursing Concepts 3 cr
- NURS 415 Psych-Mental Health Practicum 2 cr
- NURS 416 Health Care Informatics for Nursing 1 cr
- NURS 418, 418L Leadership and Management, and Lab 5 cr
- NURS 426, 426L Community Health Nursing, and Lab 5 cr
- NURS 490 Senior Practicum 2 cr

**Required Nursing Courses for LPNs and RNs Only**

- NURS 203 Health Assessment Practicum 3 cr (for LPNs only)
- NURS 375 Clinical Practicum 2 cr (for LPNs only)
- NURS 405 Socialization into Professional Nursing 1 cr
- NURS 424 Leadership in Communities for Registered Nurses 2 cr (for returning RNs only)
- NURS 425 Leadership in Communities for Registered Nurses Practicum 3 cr (Returning RNs only)

**Sophomore (fall semester)**

- BIOL 305 Introduction to Pathobiology 3 cr
- CHEM 102, 103L Introduction to Organic and Biochemistry, and Lab 4 cr
- NITD 340 Therapeutic Nutrition 3 cr
- ENGL 102 Critical Reading and Writing (Goal 1) 3 cr
- TOTAL FALL SEMESTER 16 cr

**Sophomore (spring semester)**

- NURS 200 Health Assessment 3 cr
- NURS 220 Introduction to Professional Nursing 2 cr
- NURS 262 Fundamentals of Nursing 3 cr
- NURS 263 Fundamentals of Nursing Lab 3 cr
- PSYC 315 Pharmacology for Nursing 4 cr
- TOTAL SPRING SEMESTER 15 cr

**Junior (fall semester)**

- MATH 253 Introduction to Statistics 3 cr
- NURS 354 Medical Surgical Nursing I 3 cr
- NURS 351 Medical Surgical Nursing I Practicum 4 cr
- NURS 372 Nursing Care of the Older Adult 2 cr

**Junior (spring semester)**

- NURS 330 Evidence-based Nursing Practice 3 cr
- NURS 352 Nursing Care of Children 3 cr
- NURS 374 Medical Surgical Nursing II 4 cr
- NURS 371 Medical Surgical Nursing II Practicum 2 cr

**Senior Year**

- NURS 375 Evidence-based Nursing Practice 3 cr
- NURS 376 Professional Nursing 2 cr
- NURS 377 Fundamentals of Nursing Lab 3 cr
- PSYC 315 Pharmacology for Nursing 4 cr
- TOTAL SPRING SEMESTER 14 cr

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**Nursing Courses**

- NURS 200 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 Nursing program.
- NURS 203 Health Assessment Practicum 1 credit. Clinical section in health assessment techniques for Licensed Practical Nurses. Application and practice of health assessment examination techniques performed by professional nurses. PREREQ: Acceptance into Nursing program and permission of instructor.
- NURS 204 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 Boise Fast Track Nursing Program.

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*Curriculum Patterns for B.S. Completion and Accelerated students are developed on an individual student basis and a program of study will be developed for each student.*
Application of the nursing process to the care of complex medical surgical patients. PREREQ: Admission to the nursing program and permission of instructor. COREQ: NURS 374. D

NURS 381 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: Permission of instructor. Su

NURS 405 Socialization into Professional Nursing 1 credit. Linkage course that introduces the philosophy and conceptual framework of the College of Nursing. Nursing theories are introduced for the guiding of nursing care. PREREQ: LPN or RN Licensure. D

NURS 412 Childbearing Families and Women 3 credits. Explores health issues of and nursing care principles for childbearing families and women in the reproductive years. F, S

NURS 413 Childbearing Families and Women Practicum 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. F, S

NURS 414 Psych Mental Health Nursing 3 credits. Holistic theoretical perspective of psychiatric mental health nursing of clients of all ages. PREREQ: Senior year professional status. F, S

NURS 415 Psych Mental Health Nursing Practicum 2 credits (6 contact hours lab). Clinical application of psychiatric mental health concepts to clients with potential or actual mental illness. PREREQ: Senior year professional status. F, S

NURS 416 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: Senior year professional status. F, S


NURS 418 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: Senior Year Professional Status. COREQ: NURS 418L. F, S, Su

NURS 418L Leadership and Management Lab 2 credits. Application of leadership and management theories to prepare professional nurses to function in any health care setting. PREREQ: Senior Year Professional Status. COREQ: NURS 418. F, S, Su

NURS 424 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. F

NURS 425 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. F

NURS 426 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: Senior year professional status. COREQ: NURS 426L. F, S, Su

NURS 426L 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: Senior year professional status. COREQ: NURS 426L. F, S, Su

NURS 428 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 430 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: Permission of instructor. D

NURS 431 Nursing Care of the 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: Approval of instructor. D

NURS 490 Senior Practicum 2 credits. Synthesis of previous learning and effective transition to the professional nursing role. Integrate psychomotor/teaching/relationship skills into practice and analysis of health problems typical to a chosen practice site. Explore major concepts of professional nursing practice. PREREQ: Senior year professional status. F, S, Su

NURS 491 Independent Study in Nursing Credit variable to 3. Independent study in a specific area of nursing of special interest. PREREQ: Permission of the School of Nursing. F, S
Department of Communication Sciences & Disorders, and Education of the Deaf

Chair and Professor: Seikel
Professors: Kangas, Sorensen
Associate Professors: Flipsen, Mercaldo
Assistant Professors: Brockett, Melvin Miller
Clinical Professor: Loftin
Clinical Associate Professors: Bishop, Turner, Wallber, Whitaker, Willer
Clinical Assistant Professors: Connolly, Guryan, Holst, Humphreys, Knudson, Malkasian, Negilski
Clinical Instructors: Melton, Marcie Miller
Visiting Instructor: Coonrod
Adjunct Faculty: Bowers, Mattingly, Stubbs, Swain, Wesen
Emeriti: Bain, Schow, Smedley, Weston

Degrees
The Department of Communication Sciences & Disorders, and Education of the Deaf offers an Associate of Science Degree in Sign Language Studies, a Bachelor of Science Degree in Educational 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 Educational 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 Educational Interpreting
The Bachelor of Science Degree in Educational 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 the 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 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. The undergraduate program offers both clinical and non-clinical tracks. Students who wish to pursue a master’s degree in Speech-Language Pathology or a clinical doctorate in Audiology (AuD) are strongly encouraged to complete the clinical track in consultation with their advisors.

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 Boise 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 and 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, Kasiska College of Health Professions, Department of Communication Sciences & Disorders, and Education of the Deaf.

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 321 and/or CSED 330. 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 Boise undergraduate program complete their general education requirements at Boise State University, ACI, or other accredited university before transferring to Idaho State University-Boise. It is recommended that prospective transfer students complete CSED 205 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-Boise should call (208) 373-1706 for additional information.

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 Master’s degree program. 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 Science & Disorders, and Education of the Deaf home page at [http://www.isu.edu/departments/spchpath/](http://www.isu.edu/departments/spchpath/).

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 before a computer block will be removed to allow registration.

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 on the Boise Center Campus 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 Boise offer evaluation and treatment of speech, language, stuttering, voice, alternative and augmentative communication, and speech-language problems associated with cerebral palsy, traumatic brain injury, autism, cleft palate, and stroke. 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.

Master of Science Degree in Deaf Education
Undergraduate students interested in obtaining a Master of Science Degree in Deaf Education degree should check the undergraduate catalog under the Department of Education for information regarding teacher education programs. Upon completion of a bachelor’s degree, the individual may then apply to the graduate program to meet the state’s criteria for Teacher Certification: Deaf Education. Additional information about this degree can be found in the Graduate Catalog, Kasiska College of Health Professions, Department of Communication Sciences & Disorders, and Education of the Deaf. Accredited by the National Council of Accreditation of Teacher Education, the Master of Science degree in Deaf Education also meets the requirements for training in the state of Idaho and other states in the region through reciprocal agreements. This degree provides future Deaf educators with the tools to work with Deaf and hard of hearing students in elementary and secondary education.

Bachelor of Science in Communication Sciences & Disorders, with Emphasis in Pre-Audiology or Pre-Speech-Language Pathology

Required Departmental Courses
<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSED 126</td>
<td>Deaf Studies</td>
<td>1 cr</td>
</tr>
<tr>
<td>CSED 205</td>
<td>Introduction to Communication Differences and Disorders</td>
<td>3 cr</td>
</tr>
<tr>
<td>CSED 227</td>
<td>Basic Sign I*</td>
<td>2 cr</td>
</tr>
<tr>
<td>CSED 228</td>
<td>Basic Sign II*</td>
<td>2 cr</td>
</tr>
<tr>
<td>CSED 315</td>
<td>Introduction to Clinical Processes</td>
<td>3 cr</td>
</tr>
<tr>
<td>CSED 321,321L</td>
<td>Clinical Phonology and Phonetics, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>CSED 325</td>
<td>Speech Sound Development and Disorders</td>
<td>3 cr</td>
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<tr>
<td>CSED 330</td>
<td>Language Science and Development</td>
<td>3 cr</td>
</tr>
<tr>
<td>CSED 341</td>
<td>Audiology</td>
<td>3 cr</td>
</tr>
<tr>
<td>CSED g405</td>
<td>Neurological Bases of Communication Disorders</td>
<td>3 cr</td>
</tr>
<tr>
<td>CSED g417</td>
<td>Interdisciplinary Evaluation Team</td>
<td>1 cr</td>
</tr>
<tr>
<td>CSED 435,435L</td>
<td>Speech and Hearing Sciences, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>CSED 445</td>
<td>Aural Rehabilitation</td>
<td>3 cr</td>
</tr>
<tr>
<td>CSED g460</td>
<td>Educational Audiology</td>
<td>3 cr</td>
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Students may substitute CSED 151, 152, 251, and 252 (12 credits) for CSED 227 and 228.

Other Required Courses
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>BIOL 101,101L</td>
<td>Biology I, and Lab</td>
<td>4 cr</td>
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<tr>
<td>BIOL 301,301L</td>
<td>Anatomy and Physiology, and Lab</td>
<td>4 cr</td>
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<tr>
<td>BIOL 302,302L</td>
<td>Anatomy and Physiology, and Lab</td>
<td>4 cr</td>
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<tr>
<td>ENGL 307</td>
<td>Professional and Technical Writing</td>
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<tr>
<td>HCA 110</td>
<td>Introduction to the Allied Health Professions</td>
<td>2 cr</td>
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<tr>
<td>MATH 253</td>
<td>Introduction to Statistics</td>
<td>3 cr</td>
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<tr>
<td>PSYC 101</td>
<td>Introduction to General Psychology</td>
<td>3 cr</td>
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<tr>
<td>PSYC 225</td>
<td>Child Development</td>
<td>3 cr</td>
</tr>
<tr>
<td>PSYC 332</td>
<td>Psychology of Adolescence</td>
<td>3 cr</td>
</tr>
</tbody>
</table>
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 256: Deaf Culture and Community 3 cr
- CSED 340: Communication Disorders 3 cr
- CSED 415: Clinical Practicum in Audiology 1-4 cr
- CSED 416: Audiology Methods and Applications 1 cr
- Plus electives 8 cr
- **Subtotal 16 or 17 cr**

**American Sign Language (ASL) Option:**

Students choosing the ASL option must complete the following courses. The student choosing the ASL option will substitute ASL I and ASL II for CSED 227 and 228.
- CSED 151, 151L: American Sign Language I, and Laboratory 4 cr
- CSED 152, 152L: American Sign Language II, and Laboratory 4 cr
- CSED 251, 251L: American Sign Language III, and Laboratory 4 cr
- CSED 252, 252L: American Sign Language IV, and Laboratory 4 cr

**Spanish Language Option:**

Students choosing the Spanish option must complete the following courses:
- SPAN 101: Elementary Spanish I 4 cr
- SPAN 102: Elementary Spanish II 4 cr
- SPAN 201: Intermediate Spanish I 4 cr
- SPAN 202: 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 358: Genetics 3 cr
- BIOL g415, g415L: Human Neurobiology, and Lab 4 cr
- BIOL g460: Neuroscience 4 cr
- COUN 300: Interpersonal Skills in Health Professions 2 cr
- CSED 321L: Clinical Phonetics and Phonology Lab 1 cr
- CSED 325: Speech Sound Development and Disorders 3 cr
- CSED 335: Language Disorders 3 cr
- CSED g400: Organic Communication Disorders 4 cr
- CSED g420: Speech Language Pathology 3 cr
- CSED g425: Methods and Applications 3 cr
- PHYS 100: Essentials of Physics 4 cr
- PHYS 111: General Physics I 3 cr
- PHYS 112: General Physics II 3 cr
- PHYS 300: Medical Electronics 2 cr
- PSYC 344: Adult Development and Aging 3 cr
- PSYC 446: Cognitive Processes 3 cr
- SPED 330: The Exceptional Child 3 cr

**Pre-Speech Language Pathology Emphasis:**

**Pre-Speech-Language Pathology**

Students choosing the Emphasis in Pre-Speech-Language Pathology must complete the degree requirements above and the Required Courses listed below.

**Required Courses:**
- CSED 321L: Clinical Phonetics and Phonology Lab 1 cr
- CSED 325: Speech Sound Development and Disorders 3 cr
- CSED 335: Language Disorders 3 cr
- CSED g400: Organic Communication Disorders 4 cr
- CSED g420: Assessment and Intervention of Speech and Language Disorders 3 cr
- CSED g425: Speech Language Pathology Methods and Applications 3 cr
- **Subtotal 17 cr**

**Associate of Science in Sign Language Studies**

The following courses are required in addition to the University’s General Education Requirements:
- CSED 126: Deaf Studies 1 cr
- CSED 151: American Sign Language I 3 cr
- CSED 151L: American Sign Language I Laboratory 1 cr
- CSED 152: American Sign Language II 3 cr
- CSED 152L: American Sign Language II Laboratory 1 cr
- CSED 205: Introduction to Communication Differences and Disorders 3 cr
- CSED 250: Sign Language Lab 1 cr
- CSED 250L: Sign Language Laboratory 1 cr
- CSED 251: American Sign Language III 3 cr
- CSED 251L: American Sign Language III Laboratory 1 cr
- CSED 252: American Sign Language Lab 1 cr
- CSED 255: American Sign Language IV 4 cr
- CSED 256: Creative Signing 3 cr
- CSED 256: Deaf Culture and Community 3 cr

**Bachelor of Science in Educational Interpreting**

The following courses are required in addition to an Associate Degree or equivalent in Sign Language Studies or related area:

**Required Courses**
- ENGL 307: Professional and Technical Writing 3 cr
- CSED 330: Language Science and Development 3 cr
- CSED 351: American Sign Language V 4 cr
- CSED 352: American Sign Language VI 4 cr
- CSED 353: Interpreting Seminar 4 cr
- CSED 354: Interpreting 4 cr
- CSED 355: Creative Signing 3 cr
- CSED 449: Fingerspelling and Numbers 3 cr
- CSED 452: Manually Coded English 3 cr
- CSED 453, 453L: Transliterating I: Voice to Sign, and Lab 4 cr
- CSED 454, 454L: Transliterating II: Sign to Voice, and Lab 4 cr
- CSED g546: Psychosocial Aspects of Deafness 3 cr
- CSED 460: Educational Audiology 3 cr
- CSED 461: The Professional Interpreter 3 cr
- CSED 470: Field Observation in Interpreting 6 cr
- CSED 473: Collaboration 2 cr
- CSED 474: Educational Interpreting Internship 4-8 cr

* in addition to the 30 credits listed in the Associate of Science in Sign Language Studies

**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 126: Deaf Studies 1 cr
- CSED 151: American Sign Language I 3 cr
- CSED 151L: American Sign Language I Laboratory 1 cr
- CSED 152: American Sign Language II 3 cr
- CSED 152L: American Sign Language II Laboratory 1 cr
- CSED 205: Introduction to Communication Differences and Disorders 3 cr
- CSED 250: Sign Language Lab 1 cr
- CSED 250L: Sign Language Laboratory 1 cr
- CSED 251: American Sign Language III 3 cr
- CSED 251L: American Sign Language III Laboratory 1 cr
- CSED 252: American Sign Language Lab 1 cr
- CSED 255: American Sign Language IV 4 cr
- CSED 256: Creative Signing 3 cr
- CSED 256: Deaf Culture and Community 3 cr

**Electives**
- CSED 251: American Sign Language III 3 cr
- CSED 251L: American Sign Language III Laboratory 1 cr
- CSED 252: American Sign Language IV 3 cr
- CSED 252L: American Sign Language IV Laboratory 1 cr
- CSED 256: Deaf Culture and Community 3 cr
- CSED 435: Speech and Hearing Sciences 3 cr
- CSED 341: Audiology and Hearing Science 3 cr
Minor in Deaf Education*

CSED 126 Deaf Studies 1 cr
CSED 205 Introduction to Communication Differences and Disorders 3 cr
CSED 256 Deaf Culture and Community 3 cr
CSED 330 Language Science and Development 3 cr
CSED 456 Psychosocial Aspects of Deafness 3 cr
CSED g460 Educational Audiolo 3 cr

Electives (8 credits minimum)
CSED 151 American Sign Language I 4 cr
CSED 152 American Sign Language II 4 cr
CSED 251 American Sign Language III 4 cr
CSED 252 American Sign Language IV 4 cr
CSED 327 Basic Sign I 2 cr
CSED 328 Basic Sign II 2 cr
CSED g405 Neurological Bases of Communication Disorders 3 cr

TOTAL: 24 cr

* (non certification)

Procedure: Interested students should contact the department 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.

Defa Education

Individuals interested in becoming a certified teacher of children who are deaf/hard of hearing in Idaho will need to meet all requirements of the Idaho State Board of Education. Individuals preparing to do this should begin by consulting the Undergraduate Catalog, College of Education, Teacher Education Program for details about admission into an undergraduate program in Elementary, Secondary or Special Education. Individuals will then need to apply to the Master’s Degree Program in Deaf Education in order to meet Idaho’s requirements for Teacher Certification: Deaf Education. Information about the Master’s Degree in Deaf Education can be found in the Graduate Catalog, Kasiska College of Health Professions, Department of Communication Sciences & Disorders, and Education of the Deaf.

Communication Sciences & Disorders, and Education of the Deaf 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 126 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 151 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. PREREQ: Sign Language Studies major or permission of instructor. COREQ: CSED 126 and CSED 151L. F

CSED 151L American Sign Language 1 Laboratory 1 credit. F

CSED 152 American Sign Language II 3 credits. Emphasis on receptive and expressive skills to achieve fluency on a grammatically appropriate level. Students are introduced to videotaping as a learning tool. PREREQ: CSED 151, CSED 151L and Sign Language Studies major or permission of instructor. COREQ: CSED 152L. S

CSED 152L American Sign Language II Laboratory 1 credit. S

CSED 205 Introduction to Communication Differences and Disorders 3 credits. Survey of speech, hearing, and language disorders, including study of the development of speech. Observations, films and assigned readings serve as illustrations of the various communication problems. S

CSED 227 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 228 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 227 or permission of instructor. S

CSED 250 Sign Language 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 151 and permission of instructor. S

CSED 250L Sign Language Seminar Laboratory 1 credit. Provides experiences in support of CSED 250 concepts and skills. PREREQ: CSED 151 and permission of instructor. COREQ: CSED 250L. S

CSED 251 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 152, CSED 152L, and Sign Language Studies major or permission of instructor. COREQ: CSED 251L. F

CSED 251L American Sign Language III Laboratory 0 credits. F

CSED 252 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 251, CSED 251L, and Sign Language Studies major or permission of instructor. COREQ: CSED 252L. S

CSED 252L American Sign Language IV Laboratory 0 credits. S

CSED 255 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 256 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. PREREQ: CSED 151 and CSED 151L. F

CSED 315 Introduction to Clinical Processes 3 credits. Basic treatment and assessment principles, methods, and procedures in speech-language pathology and audiology. PREREQ: CSED 321, and CSED 330, or permission of the instructor. S

CSED 321 Clinical Phonetics and Phonology 3 credits. Basic concepts in applied phonetics and phonology, emphasizing applications in communication disorders and differences. Introduction to International Phonetic Alphabet. COREQ: CSED 321L. F

CSED 321L Clinical Phonetics and Phonology Lab 1 credit. Required laboratory portion of CSED 321 for emphasis pre-speech-language pathology. Not required for Pre-Audiology emphasis. Skill development in use of International Phonetic Alphabet. COREQ: CSED 321. F

CSED 325 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 321 with a grade of “C” or better or permission of instructor. S


CSED 335 Language Disorders 3 credits. Study of children with developmental and disorders of language. Includes etiology, characteristics, assessment and intervention principles. Introduction to language diversity. PREREQ: CSED 330 or permission of instructor. S

CSED 340 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 321 and 330 or permission of the instructor. S
CSED 341 Audimetry and Hearing Science 3 credits. Introduction to basic hearing science, sound measurement, audiometry, tympanometry, hearing disorders, public school screening, and methods of aural rehabilitation. Review of role of audiology in human services. F

CSED 351 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 252. COREQ: CSED 351L. F

CSED 351L American Sign Language V Laboratory 0 credits. F

CSED 352 American Sign Language VI 4 credits. Structural properties of ASL compared with other languages. Includes phonology, morphology, syntax, and semantics. PREREQ: CSED 351. COREQ: CSED 352L. S

CSED 352L American Sign Language VI Laboratory 0 credits. S

CSED 353 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 250, CSED 250L, CSED 352, and permission of instructor. F

CSED 353L Interpreting Seminar Laboratory 0 credits. Assignments to apply principles in CSED 353. COREQ: CSED 353. F

CSED 354 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 353 and permission of instructor. S

CSED 354L Interpreting Laboratory 0 credits. Assignments to apply principles in CSED 354. COREQ: CIS 354. S

CSED 400 Organic Communication Disorders 4 credits. Review of major organic speech, language and hearing disorders. PREREQ: Permission of instructor. S

CSED 405 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. PREREQ: CSED 435 or permission of instructor. S

CSED 415 Clinical Practicum in Audiology 1-2 credits. Supervised experience in the evaluation, rehabilitation, 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 416. F, S

CSED 416 Audiology Methods and Applications 1 credit. Introductory training and experience in audiology clinical procedures. PREREQ: Completion of CSED 341 and permission of instructor. F

CSED 417 Interdisciplinary Evaluation Team 1 credit. Introduction to principles, techniques of interdisciplinary evaluation. Disciplines emphasized: Audiology, Nursing, Physical Therapy, Psychology, Social Work, Special Education, Speech-Language Pathology. Cross-listed as NURS g417, PSYC g417, and SOWK g417. PREREQ: Permission of instructor. S

CSED g420 Assessment and Intervention of Speech and Language Disorders 3 credits. Advanced assessment and treatment principles, methods and procedures for speech and language disorders to prepare students for their first clinical education experience. PREREQ: CSED 315, CSED 325, and CSED 335, or permission of the instructor. F

CSED g425 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 315, CSED 325, CSED 335, and CSED g420 or permission of the instructor. F

CSED 435 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. PREREQ: BIOL 301 and BIOL 302 or permission of instructor. COREQ: CSED 433L. F

CSED 435L Speech and Hearing Science Laboratory 0 credits. Required laboratory portion of CSED 435. F

CSED g440 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 445 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 341 or permission of instructor. S

CSED 449 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 452 Manually Coded English 3 credits. Presents 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 453 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 354 and permission of instructor. COREQ: CSED 453L. F

CSED 453L Transliterating I: Voice to Sign Lab 0 credit. Assignments to apply principles taught in CSED 453. COREQ: CIS 453. F

CSED 454 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 354 and permission of the instructor. COREQ: CSED 454L. S

CSED 454L Translating II: Sign to Voice Laboratory 0 credits. Assignments to apply principles taught in CSED 454. COREQ: CSED 454. S

CSED g456 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 351 with a “B” or better. F

CSED 460 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 461 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 470 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 473 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 474 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 g482 Independent Study 1-4 credits. Study of problems selected by students and faculty. May be repeated up to 8 credits. D

CSED g491 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 Counseling

Chair and Professor: Feit
Professors: Allen, Hill, Kleist
Associate Professors: Crews, Paulson, Vereen
Assistant Professors: Doughty, Harrawood
Clinical Assistant Professor: Singarajah
Adjunct Faculty: Bolinger, Schmidt, Watts
Emeriti: 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 for agency and community settings, Mental Health Counselors for community agencies and other mental health settings, Student Affairs Counselors for working in college settings such as advising and residence hall and career centers. In addition, we prepare doctoral level counselor educators. In addition to specific job settings, the faculty believe that it is also our mission to instill a strong sense of professional identity and appreciation for our rich knowledge base and to develop expertise in the skills of counseling with our students. To aid them in becoming certified and/or licensed and in their initial job placement. 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. School counseling students will obtain certification as school counselors.
10. Mental Health and Marital, Couple and Family students will obtain the appropriate state licensure.

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 g491, 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 and the Graduate Catalog 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 will be conducted if the programs have not filled with high quality applicants.

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 Boise campus. Classes begin in the Fall semester each year.

Counseling Courses

COUN 150 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

COUN 200 Multicultural Development 1 credit.
Acquaints students with information related to the appreciation of individual differences as it relates to race, gender, and national origin in a pluralistic society. F, S

COUN 201 Introduction to Leadership 1 credit.
Contemporary approaches to leadership with an emphasis on the practical application of theoretical models. Graded S/U. F, S

COUN 210 Human Relations at Work 3 credits.
The development of knowledge and skills to enhance cooperation between employers and employees in various work settings. Exploration of current thought on the nature, process, and diversity of human interaction as it applies to the world of work. D

COUN 300 Interpersonal Skills in Health Professions 2 credits.
Theory and practice in the use of effective interpersonal communication skills and styles for health care providers. R1

COUN 350 Self Fulfilling Behavior 1 credit.
Course objective is to assist the student in developing satisfying personal and interpersonal emotional skills and habits. Combines instruction in principles of mental health with practical methods for applying principles to problems of everyday life. PREREQ: Permission of instructor. Graded S/U. D

COUN 423 Vocational Guidance and Counseling 3 credits.
Study of occupational trends, job opportunities, factors involved in selecting an occupation and means of evaluating interests in terms of capabilities. D

COUN 425 Peer Counseling Seminar 1-2 credits.
Supervised experience in assisting another student. Students meet out of class on a weekly contact basis. Course provides ongoing training for the peer counselors. May be repeated up to 6 credits. PREREQ: Permission of instructor. D

COUN 484 Guidance Principles and Practices 3 credits.
Survey of the various guidance practices in secondary education. Each service is discussed from the point of view of its role in the total educational program. D

COUN 485 Independent Problems 1-2 credits.
Individual work under staff guidance. Field and/or library research on specific educational problems of interest to majors. Experience in research composition. PREREQ: Permission of instructor. D

COUN 491 Seminar 1-3 credits.
Critical analysis of the literature in one or more areas. Limited enrollment. May be repeated up to 8 credits. PREREQ: Permission of instructor. May be graded S/U or with letter-grades in separate sections. F, S, Su.

COUN 494 Elementary School Guidance 2 credits.
Study of (1) the function of guidance in relation to children’s needs; (2) principles and techniques of elementary school guidance; (3) analysis of representative programs of guidance in the elementary schools; and (4) research related to elementary school guidance and resulting trends. D

COUN 495 Seminar 1-3 credits.
Critical analysis of the literature in one or more areas. Limited enrollment. May be repeated up to 8 credits. PREREQ: Permission of instructor. May be graded S/U or with letter-grades in separate sections. F, S, Su.

COUN 496 Seminar 1-3 credits.
In-depth study of specific educational problems related to school guidance. Limited enrollment. May be repeated up to 8 credits. PREREQ: Permission of instructor. May be graded S/U or with letter-grades in separate sections. F, S, Su.

COUN 497 Seminar 1-3 credits.
Study of a selected area of counseling. Limited enrollment. May be repeated up to 8 credits. PREREQ: Permission of instructor. May be graded S/U or with letter-grades in separate sections. F, S, Su.

COUN 498 Survey of School Guidance 2 credits.
Study of (1) the function of guidance as a service to the total educational program. D

COUN 499 Seminar 1-3 credits.
Survey of the various guidance practices of interest to majors. Experience in research composition. PREREQ: Permission of instructor. D

Department of Dental Hygiene

Chair and Professor: Hodges
Professors: Bowen, Boyd, Christie, Paarmann

Associate Professors: Calley, Rogo
Assistant Professors: Freudenthal, Garland, Hauser, T. Johnson

Clinical Associate Professors: Ellis, Long
Clinical Assistant Professors: Biorn, Zollinger

Clinical Instructors: Agado, Nelson
Adjunct Faculty: Bon, E. Bringham, L. Bringham, Eisenhauer, D. Godfrey, M. Godfrey, Gregson, Peterson, Rahmag, Reddish, Ruth, Sheppard, Spain, Williams

Affiliate Faculty: R. Johnson, Kane, Luedke, Parrish, Salisbury
Emeriti: Herzog, Kawamura

As licensed professional oral health clinicians and educators, dental hygienists practice as members of the dental team, using knowledge of biomedical, dental, clinical, and social sciences to assist individuals and groups in achieving and maintaining optimum oral health. The 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 broadened to include procedures that are beyond this traditional scope of responsibility such as the administration of local anesthesia and nitrous oxide analgesia, and/or certain restorative procedures. As a specialist, the dental hygienist is an integral co-therapist in helping consumers prevent oral disease, arrest existing periodontal (gum) 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 and regional 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:

- facilitate the development of dental hygienists who are able to fulfill the multiple roles of professional dental hygienists;
- award baccalaureate degrees in the discipline with a vision toward granting graduate degrees;
- contribute to the science of dental hygiene and the advancement of related knowledge through applied qualitative and quantitative research;
- promote the health and well-being of the public by providing clinical dental hygiene care and community service;
• participate as an integral, active, and contributing entity of the institution through University service.

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.

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 formal articulation agreements with every state college/university in Idaho.

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 licensure exams in every state, 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.

Admission
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 have completed prerequisite courses and completed specific requirements for consideration. Application materials must be forwarded 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 certificates and vaccinations prior to beginning the specified year.

Academic Standards
To enroll in upper division courses with a dental hygiene prefix, 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. Deviations from these standards must be approved by the department chairperson.

Dental Hygiene Services
Preventive and therapeutic oral health services are provided by licensed dental hygienists and dentists and experienced students in the dental hygiene clinic. Services for the public include oral prophylaxis, x-rays, nonsurgical treatment for periodontal (gum) disease, fluoride treatments, and patient education in the care of the mouth. Selected advanced services are available for full-time Idaho State University students, faculty and staff. Individuals desiring information should inquire about the availability of services with the dental hygiene clinic receptionist.

Master of Science Degree 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.

Graduation Requirements

<table>
<thead>
<tr>
<th>Prerequisite courses</th>
<th>40-51 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>(department requirements and general education)</td>
<td></td>
</tr>
<tr>
<td>Required dental hygiene courses</td>
<td>67 cr</td>
</tr>
<tr>
<td>Other courses (including general education), minimum of</td>
<td>15 cr</td>
</tr>
<tr>
<td>Electives</td>
<td>6 cr</td>
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<td>TOTAL:</td>
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</table>
## Bachelor of Science in Dental Hygiene

### Prerequisite Courses (Pre-Dental Hygiene)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL 101, 101L</td>
<td>Biology I, and Lab (satisfies Goal 4)</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 221, 221L</td>
<td>Introductory Microbiology, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 301, 301L</td>
<td>Anatomy and Physiology, and Lab</td>
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<tr>
<td>BIOL 302, 302L</td>
<td>Anatomy and Physiology, and Lab</td>
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<tr>
<td>CHEM 101</td>
<td>Introduction to General Chemistry AND Introduction to Organic and Biochemistry, and Lab (satisfies Goal 5)</td>
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<tr>
<td>COMM 101</td>
<td>Principles of Speech (satisfies Goal 2)</td>
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<tr>
<td>DENT 201</td>
<td>Principles of Dental Hygiene</td>
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<tr>
<td>ENGL 101</td>
<td>English Composition</td>
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<td>ENGL 102</td>
<td>Critical Reading and Writing</td>
<td>3 cr</td>
</tr>
<tr>
<td>NTR 236/237</td>
<td>Nutrition</td>
<td>3 cr</td>
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<tr>
<td>MATH 251</td>
<td>Intermediate Algebra or competency exam</td>
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<tr>
<td>MATH 253</td>
<td>Introduction to Statistics (satisfies Goal 3)</td>
<td>3 cr</td>
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<tr>
<td>PSYC 101</td>
<td>Introduction to General Psychology (satisfies Goal 12)</td>
<td>3 cr</td>
</tr>
<tr>
<td>SOC 101</td>
<td>Introduction to Sociology (satisfies Goal 12)</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

**IN ADDITION:**
- Two of Goals 6, 7, and 8
- Two of Goals 9, 10 and 11
- DENT 220 is highly recommended as an elective for pre-dental hygiene students without dental office experience.
- CIS 101 is highly recommended as an elective for those individuals without computer skills.
- HCA 110 is recommended for Kasiska College of Health Professions students.

### Required Dental Hygiene Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>DENT 307</td>
<td>Managing Oral Health Care for Medically Compromised Patients</td>
</tr>
<tr>
<td>DENT 308</td>
<td>Oral Histology and Embryology</td>
</tr>
<tr>
<td>DENT 309</td>
<td>Oral Pathology</td>
</tr>
<tr>
<td>DENT 311</td>
<td>Tooth Morphology</td>
</tr>
<tr>
<td>DENT 312</td>
<td>Head and Neck Anatomy</td>
</tr>
<tr>
<td>DENT 313</td>
<td>Clinical Dental Hygiene I</td>
</tr>
<tr>
<td>DENT 313C</td>
<td>Clinical Dental Hygiene I, Clinic</td>
</tr>
<tr>
<td>DENT 314</td>
<td>Clinical Dental Hygiene II</td>
</tr>
<tr>
<td>DENT 314C</td>
<td>Clinical Dental Hygiene II, Clinic</td>
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<tr>
<td>DENT 315</td>
<td>Preventive Dentistry</td>
</tr>
<tr>
<td>DENT 316</td>
<td>Dental Materials</td>
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<tr>
<td>DENT 317</td>
<td>Oral Radiology I</td>
</tr>
<tr>
<td>DENT 318</td>
<td>Oral Radiology II</td>
</tr>
<tr>
<td>DENT 318L</td>
<td>Oral Radiology Laboratory I</td>
</tr>
<tr>
<td>DENT 319</td>
<td>Pre-clinical Expanded Functions</td>
</tr>
<tr>
<td>DENT 320</td>
<td>Local Anesthesia</td>
</tr>
<tr>
<td>DENT 321</td>
<td>Introduction to Periodontology</td>
</tr>
<tr>
<td>DENT 301</td>
<td>Research Methodology</td>
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### Dental Hygiene Electives

<table>
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<th>Course Code</th>
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<tbody>
<tr>
<td>DENT 305</td>
<td>Personal and Career Development</td>
</tr>
<tr>
<td>DENT 305C</td>
<td>Interim Clinic</td>
</tr>
<tr>
<td>DENT 340C</td>
<td>Summer Clinic Enrichment</td>
</tr>
<tr>
<td>DENT 420</td>
<td>Dental Hygiene Specialty</td>
</tr>
<tr>
<td>DENT 481-482</td>
<td>Independent Problems in Dental Hygiene</td>
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</table>

### Other Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSCI 314</td>
<td>Basic and Applied Pharmacology for Dental Hygiene</td>
</tr>
</tbody>
</table>

### Dental Hygiene Courses

**DENT 201 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 220 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 305 Personal and Career Development 1 credit.** Incorporation of time management, stress management and assertiveness skills into career and life planning. Graded S/U. F

**DENT 307 Managing Oral Health Care for Medically Compromised Patients 3 credits.** Lectures, discussions, cases, and active learning modalities provide a working knowledge of management of medically compromised patients during oral health care. Emphasis on precautions and treatment alterations for patients with medical complications as well as an overview of protocols for handling a medical emergency. PREREQ: Acceptance into Dental Hygiene program. COREQ: DENT 313C. F

**DENT 308 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 309 Oral Pathology 2 credits.** Study of common oral lesions and neoplasms including general, dental and oral pathological processes with emphasis on etiology and clinical manifestations. Utilization of patient history, laboratory, roentgenographic and other diagnostic aids. PREREQ: DENT 308. S

**DENT 311 Tooth Morphology 2 credits.** Morphological characteristics and development of the teeth and oral structures. Emphasis on root anatomy and preparation for advanced clinical skills. F

**DENT 312 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 311. F

**DENT 313 Clinical Dental Hygiene I 2 credits.** Didactic introduction to infection control, comprehensive patient assessment procedures, basic instrumentation and their sharpening techniques, professional topical fluorides and their application. PREREQ: Acceptance into Dental Hygiene program. COREQ: DENT 313C. F

**DENT 313C Clinical Dental Hygiene I, Clinic 3 credits.** Preclinical application of principles, techniques, and concepts presented in DENT 307 and 313. PREREQ: Acceptance into Dental Hygiene program. COREQ: DENT 313. F

**DENT 314 Clinical Dental Hygiene II 2 credits.** Continued didactic instruction expanding on principles of patient communication and implementation of dental hygiene procedures for a variety of clients. PREREQ: DENT 313, DENT 313C. and DENT 315. COREQ: DENT 314C. S

**DENT 314C Clinical Dental Hygiene II, Clinic 3 credits.** Clinical application of dental hygiene care for clients with periodontal health, gingivitis, and early periodontitis. Emphasis on assessment, planning, implementation and evaluation. PREREQ: DENT 313, DENT 313C., and DENT 315. COREQ: DENT 314. S

**DENT 315 Preventive Dentistry 2 credits.** Basics of dental disease etiology and methods for disease control. Theoretical and practical knowledge of fluoride utilization, diet management, patient education, and plaque removal. Emphasis on methods for increasing compliance by modifying behavior. F

**DENT 316 Dental Materials 2 credits.** Survey of physical and chemical properties of dental materials. Manipulation and practical application used in general restorative dentistry also are included. F

**DENT 317 Oral Radiology I 1 credit.** Survey of principles of x-ray production and radiographic equipment with emphasis on radiographic safety and protection. F

**DENT 318 Oral Radiology II 2 credits.** Principles and technique of exposing and interpreting oral radiographic surveys. PREREQ: DENT 312, DENT 313, DENT 313C., and DENT 317. S

**DENT 318L Oral Radiology Laboratory I 1 credit.** Laboratory instruction and supervision for the production, processing, evaluation and interpretation of oral radiographs. Proficiency examination and educational training model experience precede patient exposure. PRE-
Examination and analysis of concepts of periodontology and advanced ultrasonic techniques, subgingival dures. Emphasizes periodontal instrumentation.

DENT 320 Local Anesthesia 2 credits. Didactic and clinical instruction in the administration of local anesthetic agents, with emphasis on techniques of field and nerve block anesthesia. PREREQ: DENT 307 and DENT 312. S

DENT 321 Introduction to Periodontology 2 credits. Concepts of periodontology involving assessment, etiology, risk factors, and classification of periodontal diseases; basic treatment planning, and periodontal debridement/root planing. PREREQ: DENT 308, DENT 313, and DENT 313C. COREQ: DENT 314 and DENT 314C. S

DENT 330C 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 314C or DENT 404C sufficient for progression or graduation. May be repeated once. PREREQ: Permission of department. F, S, Su

DENT 340C Summer Clinic Enrichment 0 credits. Continued clinical application of dental hygiene procedures emphasizing total patient care. For students who desire to enrich their clinical course experience for 314C or 404C. PREREQ: Permission of department. Graded S/U. S

DENT 401 Research Methodology 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 253 and ENGL 102. F

DENT 402 Periodontology 2 credits. Continued study of periodontal diseases with emphasis on aggressive forms, periodontal treatment planning, maintenance procedures, related systemic diseases and therapy. PREREQ: DENT 314, DENT 314C, and DENT 321. COREQ: DENT 403 and DENT 403C. F

DENT 403 Clinical Dental Hygiene III 2 credits. Advanced clinical procedures in all phases of dental hygiene practice including nonsurgical periodontal therapy, ultrasonic scaling, instrument recontouring, assessment procedures and dietary counseling. PREREQ: DENT 314 and DENT 314C. COREQ: DENT 403C. F

DENT 403C Clinical Dental Hygiene III, Clinic 4 credits. Comprehensive care including assessment, planning, implementation and evaluation. Emphasis on skill development in nonsurgical periodontal therapy, oral self-care education, ethical/professional case management. PREREQ: DENT 314 and DENT 314C. COREQ: DENT 403C. F

DENT 404C Clinical Dental Hygiene IV, Clinic 4 credits. Comprehensive care including assessment, planning, implementation and evaluation is practiced. Emphasis on competency in nonsurgical periodontal therapy, ethical/professional case management and practice management. PREREQ: DENT 403 and DENT 403C. COREQ: DENT 404. S


DENT 408 Ethics and Jurisprudence 2 credits. The study of legal, ethical, and moral responsibilities of health care professionals as related to the practice of dental hygiene. Licensure, legal terminology and the Idaho Dental Practice Act will be discussed. F

DENT 409 Communication and Behavior Management in Dentistry 1 credit. Principles of communication and behavior management as related to patient-provider relationships, management of dental fears/anxiety, and interpersonal interactions in the employment setting. S

DENT 411 Expanded Functions I 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 319 and DENT 320. COREQ: DENT 411C. S

DENT 411C Expanded Functions I Clinic 1 credit. Clinical application of advanced procedures emphasizing pain control methods, restorative expanded functions and four-handed dentistry techniques. PREREQ: DENT 319 and DENT 320. COREQ: DENT 411. F

DENT 412 Dental Specialties I 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 411. COREQ: DENT 412C. S

DENT 412C Expanded Functions II Clinic 1 credit. Continuation and amplification of skills developed in DENT 411C. PREREQ: DENT 411 and DENT 411C. COREQ: DENT 412. S

DENT 413 Community Health and Special Needs Populations I 2 credits. Concepts of oral health education and preventive counseling, health promotion, patient management, and public health along with modifications of dental hygiene care for individuals with transient or lifelong special needs emphasizing the elderly, people with disabilities and individuals from diverse cultures. COREQ: DENT 403 and DENT 403C. F

DENT 414 Community Health and Special Needs Populations II 2 credits. Concepts of oral health education and preventive counseling, health promotion, patient management, public health, and research are applied to achieve a sustained improvement in the oral health behavior, knowledge, and attitude of a group of subjects not normally seen as patients. Field experiences required. PREREQ: DENT 315. S

DENT 415 Clinical Seminar 1 credit. Discussion and integration of clinical cases, in addition to current theories and topics in dental hygiene practice. COREQ: DENT 404, DENT 404C, and DENT 412C. S

DENT 420 Dental Hygiene Specialty Emphasis 2 credits. Didactic and clinical instruction offered in three dental hygiene specialties, including community dental health, dental hygiene education, and advanced clinic and periodontology. Students select one emphasis. PREREQ: DENT 402. S

DENT 481 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

Department of Dental Sciences

Chair, IAGD Program Director, and Associate Professor: Crawford
IAGD Boise Program Director: Powell
IAGD Pocatello Program Director: Klingler
IDEP Director and Adjunct Instructor: Ybarguen
Adjunct Faculty: Nielsen, Pedersen
Affiliate Faculty: Bingham, Brady, Bruce, Chapman, Comstock, Dean, DiGrazia, Doyle, Duncan, Ellis, Eppich, Ferguson, Hanson, Hopkins, Johnson, Kempers, Leavitt, Matunas, McMinn, McMurray, Meadors, Morrison, Moulin, Munk, Nelson, Newton, Peterson, Polson, Ruppel, Seyler, Staats, Sutton, Taybos, Vania, Zirker

The Department of Dental Sciences administers the Idaho Dental Education Program (IDEP) for predoctoral dental students, and the Idaho Advanced General Dentistry Residency (IAGD) as a postdoctoral program.

The 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 in the Department of Dental Sciences Bulletin. 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 printed in the Department of Dental Sciences Bulletin and the Creighton University School of Dentistry Bulletin. The application process involves: taking the Dental Aptitude Test (DAT), completion of the American Dental Education Association Application Service centralized application, the Creighton Supplemental Application and the IDEP Residency Certification Form. Although the application process can be completed as late as January 1 of the year the student plans to enter the program, earlier application is strongly encouraged to allow adequate time for completion of admission requirements and consideration by the admissions committee.

Further information concerning the program, admission requirements, Bulletins 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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<tr>
<td>BIOL g400</td>
<td>Oral Histology and Embryology</td>
<td>3 cr</td>
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<tr>
<td>BIOL g400L</td>
<td>Oral Histology and Embryology Lab</td>
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<tr>
<td>BIOL g419</td>
<td>Mammalian Histology</td>
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<td>Mammalian Histology Lab</td>
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<tr>
<td>BIOL g432</td>
<td>Biochemistry</td>
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<td>BIOL g440</td>
<td>Human Gross Anatomy</td>
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<td>BIOL g440L</td>
<td>Human Gross Anatomy Lab</td>
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<tr>
<td>BIOL g450</td>
<td>Head and Neck Anatomy</td>
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<td>Head and Neck Anatomy Lab</td>
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<tr>
<td>BIOL g460</td>
<td>Neuroscience</td>
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</tr>
<tr>
<td>BIOL g464</td>
<td>Human Systemic Physiology</td>
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### Required Dental Sciences Courses

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<th>Title</th>
<th>Credits</th>
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<tr>
<td>IDEP g413</td>
<td>Dental Anatomy Lecture I</td>
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<td>IDEP g414</td>
<td>Dental Anatomy Laboratory</td>
<td>3 cr</td>
</tr>
<tr>
<td>IDEP g415</td>
<td>Dental Materials Science I</td>
<td>2 cr</td>
</tr>
<tr>
<td>IDEP g417</td>
<td>Interpersonal Relationships and Communication</td>
<td>1 cr</td>
</tr>
<tr>
<td>IDEP g423</td>
<td>Preventive Dentistry</td>
<td>2 cr</td>
</tr>
<tr>
<td>IDEP g425</td>
<td>History of Dentistry</td>
<td>1 cr</td>
</tr>
<tr>
<td>IDEP g426</td>
<td>Community Dentistry Field Experience</td>
<td>1 cr</td>
</tr>
<tr>
<td>IDEP g433</td>
<td>Oral Hygiene Technique</td>
<td>1 cr</td>
</tr>
<tr>
<td>IDEP g434</td>
<td>Dental Materials Science II</td>
<td>3 cr</td>
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<tr>
<td>IDEP g435</td>
<td>Occlusion Laboratory</td>
<td>1 cr</td>
</tr>
<tr>
<td>IDEP g444</td>
<td>Values and Ethics</td>
<td>1 cr</td>
</tr>
<tr>
<td>IDEP g454</td>
<td>Occlusion Lecture</td>
<td>1 cr</td>
</tr>
<tr>
<td>IDEP g463</td>
<td>Dental Radiology I</td>
<td>1 cr</td>
</tr>
<tr>
<td>IDEP g464</td>
<td>Dental Radiology Technique</td>
<td>1 cr</td>
</tr>
<tr>
<td>IDEP g465</td>
<td>Dental Radiology II</td>
<td>1 cr</td>
</tr>
<tr>
<td>NTD g495</td>
<td>Dental Nutrition</td>
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### Optional Dental Sciences Courses

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### Dental Sciences Courses

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<td>Dental Anatomy Lecture I</td>
<td>1 cr</td>
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<tr>
<td>IDEP g414</td>
<td>Dental Anatomy Laboratory</td>
<td>3 cr</td>
</tr>
<tr>
<td>IDEP g415</td>
<td>Dental Materials Science I</td>
<td>2 cr</td>
</tr>
<tr>
<td>IDEP g417</td>
<td>Interpersonal Relationships and Communication</td>
<td>1 cr</td>
</tr>
<tr>
<td>IDEP g423</td>
<td>Preventive Dentistry</td>
<td>2 cr</td>
</tr>
<tr>
<td>IDEP g425</td>
<td>History of Dentistry</td>
<td>1 cr</td>
</tr>
<tr>
<td>IDEP g426</td>
<td>Community Dentistry Field Experience</td>
<td>1 cr</td>
</tr>
<tr>
<td>IDEP g433</td>
<td>Oral Hygiene Technique</td>
<td>1 cr</td>
</tr>
<tr>
<td>IDEP g434</td>
<td>Dental Materials Science II</td>
<td>3 cr</td>
</tr>
<tr>
<td>IDEP g435</td>
<td>Occlusion Laboratory</td>
<td>1 cr</td>
</tr>
<tr>
<td>IDEP g444</td>
<td>Values and Ethics</td>
<td>1 cr</td>
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<td>IDEP g454</td>
<td>Occlusion Lecture</td>
<td>1 cr</td>
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<tr>
<td>IDEP g463</td>
<td>Dental Radiology I</td>
<td>1 cr</td>
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<tr>
<td>IDEP g464</td>
<td>Dental Radiology Technique</td>
<td>1 cr</td>
</tr>
<tr>
<td>IDEP g465</td>
<td>Dental Radiology II</td>
<td>1 cr</td>
</tr>
<tr>
<td>NTD g495</td>
<td>Dental Nutrition</td>
<td>1 cr</td>
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</table>

### IDEP g423 Preventive Dentistry 2 credits.

Introducing the philosophy and need for preventive dentistry by developing the student’s knowledge of and skills for effective oral hygiene. Concepts of self motivation, knowledge of dental diseases and abnormalities; application of the principles of fluoridation, nutrition, patient motivation, and home care. F

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<tbody>
<tr>
<td>IDEP g425</td>
<td>History of Dentistry</td>
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</table>

IDEP g425 History of Dentistry 1 credit. To acquaint the student with the history of dentistry from ancient times to present, emphasis is placed upon contributions by individuals and groups of individuals leading to the current status of dentistry in the United States. Graded S/U. F

### IDEP g426 Community Dentistry Field Experience 1 credit.

Designed to acquaint students with area health problems and with area health services and agencies. Field experience is gained during dental health and/or career presentations in public schools. To provide a variety of experiences, visits are made, for example, to the chronically ill, aged, or handicapped; to water purification facilities; to Indian groups. S

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<tbody>
<tr>
<td>IDEP g433</td>
<td>Oral Hygiene Technique</td>
<td>1 cr</td>
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</table>

### IDEP g433 Oral Hygiene Technique 1 credit.

Introduction to the instruments and their usage in performing a complete scaling prophylaxis of the teeth. Periodontal charting and instrument sharpening techniques are also performed. Didactic, laboratory, and clinical introduction. S

### IDEP g434 Dental Materials Science II 3 credits.

Continuation of IDEP g415. PREREQ: IDEP g415. S

### IDEP g435 Occlusion Laboratory 1 credit.

Various exercises simulating clinical diagnostic and treatment procedures are employed to exemplify principles of maxillomandibular relationships. S

<table>
<thead>
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<tbody>
<tr>
<td>IDEP g444</td>
<td>Values and Ethics</td>
<td>1 cr</td>
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</tbody>
</table>

### IDEP g444 Values and Ethics 1 credit.

Designed to identify and understand one’s own ethical decision-making processes and the relationship of religin 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 g454 Occlusion Lecture 1 credit.

Basic principles of maxillomandibular relationships, static and functional, as related to the occlusal surfaces of the teeth. S

<table>
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</thead>
<tbody>
<tr>
<td>IDEP g463</td>
<td>Dental Radiology I</td>
<td>1 cr</td>
</tr>
</tbody>
</table>

### IDEP g463 Dental Radiology I 1 credit.

History, theory and application of ionizing radiation resulting in radiography of the oral structures; including exposure and developing parameters along with basic interpretation. COREQ: IDEP g464. S

### IDEP g464 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 g463. S

### IDEP g465 Dental Radiology II 1 credit.

History, theory, and application of radiographic methods in dentistry including cephalometric, panoramic, and digital modalities. COREQ: IDEP g463 and IDEP g464. S

### IDEP g617 Extramural Dental Education Program 2 credits.

Community clinical experience
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

Department of Family Medicine

Director and Clinical Professor: Cree
Associate Director: Woodhouse
Professor: Force
Associate Professors: Bokelmann,
Hoffmann
Clinical Associate Professor: Jones
Faculty Physician: Wright
Clinical Assistant Professors: Borzadek,
Murdock, Pettinger, Routson
Instructor: Hatch
Clinical Instructors: Abraszewski,
Bearden, Waldron
Affiliate Faculty: Buitrago, DeSano,
Fernandez, Hogan, Joseph
Emeritus Faculty: Rush

Family Medicine Residency Program

The Idaho State University Family Medi-
cine 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 six residents per year, the pro-
gram trains Family Physicians to practice in
rural Idaho. The curriculum includes family
medicine, obstetrics/gynecology, surgery,
internal medicine, pediatrics, geriatrics,
emergency medicine, community medi-
cine, behavioral science, rural medicine,
orthopedics and other subspecialities.

For more information, please contact:
Family Medicine Residency Program
465 Memorial Drive
921 S 8th Ave Stop 8357
Pocatello, ID 83209-8357
(208) 282-4504
Internet: www.fmed.isu.edu
E-mail: fammed@fmed.isu.edu

Department of Health and Nutrition Sciences

Chair and Professor: McAleese
Professor: Rankin
Assistant Professors: Batacan, Blanton,
Louis, Murillo, Olsen
Instructors: Albers, D’Amico
Clinical Associate Professors:
McKnight, Schneider
Clinical Assistant Professors: Grim,
Munn
Visiting Instructor: Salazar
Emeriti: Kearns, Kritsky, Morris

Our Mission
The mission of the Department of Health
and Nutrition Sciences is to improve the
health and wellness of human populations
through excellence in dynamic,
competency-based instruction, exemplary
service, innovative and applied research,
evidence-based practical application in
health careers, and leadership to the profes-
sional health community.

About Us
The Department of Health and Nutrition
Sciences offers baccalaureate degree
programs in health education and dietet-
ics, post-graduate dietetic internships, and
graduate degrees in health education and
in public health.

The undergraduate health education
program is accredited by the Association
for the Advancement of Health Educa-
tion (AAHE) through NCATE. Students
may choose from three options: 1) public
school teaching certification, 2) com-
munity/worksite health, or 3) addiction
studies. An option is available for students
seeking a health component in elementary
education.

The Didactic Program in Dietetics (DPD)
is accredited by the Commission on Ac-
creditation of Dietetics Education of the
American Dietetics Association (ADA 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 Commission on
Accreditation of Dietetics Education of the
American Dietetics Association. The DI
Program provides a supervised postgradu-
ate practical experience preparing interns
for successful completion of the registra-
tion exam and entry-level practice.

Graduate degrees are offered through a
Master of Health Education (M.H.E.) and a
Master of Public Health (M.P.H.). To learn
more about these graduate programs, please
click on their respective links. Distance
Learning through our Boise Center Campus
makes the attainment of the M.P.H degree
more accessible to campuses in Pocatello
and Idaho Falls.

Department Objectives
Health is a dynamic multi-dimensional
measure of the quality of life rather than
simply a freedom from illness. The Depart-
ment of Health and Nutrition Sciences
promotes a holistic approach to health
which focuses on positive health habits
and lifestyle. This includes incorporating
knowledge and skills, which enables the
individual to assume personal responsi-

ability for health decisions with strategies
that combine educational, political, regula-

tory, and organizational supports for actions
and conditions conducive to the health of indi-

guals, groups, or communities. Disease
prevention/health promotion coupled with
the treatment of diseases and disorders en-
ables a person to achieve a healthy happy,
productive life in all respects.

Bachelor of Arts or Bachelor of
Science in Health Education

There is little doubt in today’s world
that health promotion/disease prevention
strategies are on nearly every national
health care agenda. As a society, we have
learned that a fuller measure of health, a
better quality of life, is within the grasp
of almost all people. The lifestyle choices a person makes today may influence that individual’s health forever.

The undergraduate program in health education 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. To earn a degree, each student must complete the health education core requirements, and then complete additional coursework and field experience in one of two emphasis areas (school health or community/worksite health). An addiction studies option is also available for students.

Health Education Program
Goals and Objectives
Coursework in the Idaho State University undergraduate health education program prepares students to work with individuals, groups, and organizations and to be able to:

1. Assess individual and community needs for health education
   a. Access existing and collect health-related data
   b. Distinguish between behaviors that foster and hinder well-being
   c. Determine factors that influence learning
   d. Identify factors that foster or hinder the process of health education
   e. Infer needs for health education from obtained data

2. Plan health education strategies, interventions, and programs
   a. Involve people and organizations in program planning
   b. Incorporate data analysis and principles of community organization
   c. Formulate appropriate and measurable program objectives
   d. Develop a logical scope and sequence plan for health education practice
   e. Design strategies, interventions, and programs consistent with specified objectives
   f. Select appropriate strategies to meet objectives
   g. Assess factors that affect implementation

3. Implement health education strategies, interventions, and programs
   a. Initiate a plan of action
   b. Demonstrate a variety of skills in delivering strategies, interventions, and programs
   c. Use a variety of methods to implement strategies, interventions, and programs
   d. Conduct training programs

4. Conduct evaluation and research related to health education
   a. Develop plans for evaluation and research
   b. Review research and evaluation procedures
   c. Design data collection instruments
   d. Carry out evaluation and research plans
   e. Interpret results from evaluation and research
   f. Infer implications from findings for future health-related activities

5. Administer health education strategies, interventions, and programs
   a. Exercise organizational leadership
   b. Secure fiscal resources
   c. Manage human resources
   d. Obtain acceptance and support for programs

6. Serve as a health education resource person
   a. Use health-related information resources
   b. Respond to requests for health information
   c. Select resource materials for dissemination
   d. Establish Consultative Relationships

7. Communicate and advocate for health and health education
   a. Analyze and respond to current and future needs in health education
   b. Apply a variety of communication methods and techniques
   c. Promote the health education profession individually and collectively
   d. Influence health policy to promote health.

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:
   - ENGL 102 Critical Reading and Writing 3 cr
   - COMM 101 Principles of Speech 3 cr
   - MATH 253 Introduction to Statistics 3 cr
   - BIOL 101, 101L Biology I, and Lab 4 cr
   - BIOL 301, 301L Anatomy and Physiology, and Lab 4 cr
   - BIOL 302, 302L Anatomy and Physiology, and Lab 4 cr
   - CIS 101, 101L Introduction to Computer Systems, and Lab 3 cr
   - NTD 139 Consumer Nutrition 3 cr
   - NTD 239 Nutrition 3 cr
   - H E 200 Promoting Wellness 3 cr
   - H E 221 Introduction to Health Education 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 for the B.A. or B.S. degree, all core health education requirements, and all courses from one of the two emphasis areas listed below. Students selecting the school health emphasis should complete coursework toward a teaching minor or second teaching major. In addition, students wishing to teach
must also complete all College of Education course requirements.

**Summary of Requirements for a Bachelor of Arts or a Bachelor of Science Degree in Health Education**

A minimum of 128 semester credit hours to include:

1. Completion of the University general education requirements (see Academic Information and Graduate Requirements). Courses which fulfill both general education goals and major requirements:

   - Goal 1: ENGL 102 - Critical Reading and Writing
   - Goal 2: COMM 101 - Principles of Speech
   - Goal 3: MATH 253 - Introduction to Statistics
   - Goal 4: BIOL 101, 101L - Biology I, and Lab*
   - Goal 5: PSYC 101 - Introduction to General Psychology

   *Students pursuing the Bachelor of Science may substitute 12 hours in physical or biological sciences for Goals 4 and 5.

2. Completion of the following required courses:

   - BIOL 301,301L Anatomy and Physiology, and Lab 4 cr
   - BIOL 302,302L Anatomy and Physiology, and Lab 4 cr
   - CIS 101, 101L Introduction to Computer Systems, and Lab 3 cr
   - ENGL 307 Technical Writing 3 cr
   - NTD 139 Consumer Nutrition 3 cr
   - NTD 239 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.

### Health Education Major Core Requirements (21 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>H E 200</td>
<td>Promoting Wellness</td>
<td>3 cr</td>
</tr>
<tr>
<td>H E 221</td>
<td>Introduction to Health Education</td>
<td>3 cr</td>
</tr>
<tr>
<td>H E 340, 340L</td>
<td>Fitness and Wellness, Programs, and Lab</td>
<td>3 cr</td>
</tr>
<tr>
<td>H E 342</td>
<td>Stress and Emotional Health</td>
<td>3 cr</td>
</tr>
<tr>
<td>H E g410</td>
<td>Behavior Change Theory and Application</td>
<td>3 cr</td>
</tr>
<tr>
<td>H E 420</td>
<td>Health Program Planning and Implementation</td>
<td>3 cr</td>
</tr>
<tr>
<td>H E 435</td>
<td>Health Program Evaluation and Research</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

### Addiction Studies Option (minimum of 40 credits)*

In addition to the Health Education Major Core, the following courses are required in the Addictions Studies option:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>H E 210</td>
<td>Medical Terminology and Communication</td>
<td>2 cr</td>
</tr>
<tr>
<td>H E 232</td>
<td>Helping Theories</td>
<td>3 cr</td>
</tr>
<tr>
<td>H E 311</td>
<td>Case Management of Substance Abuse and</td>
<td>3 cr</td>
</tr>
<tr>
<td>H E 312</td>
<td>Ethics for the Addictions Counselor</td>
<td>3 cr</td>
</tr>
<tr>
<td>H E 332</td>
<td>Community and Public Health</td>
<td>3 cr</td>
</tr>
<tr>
<td>H E 383</td>
<td>Epidemiology</td>
<td>3 cr</td>
</tr>
<tr>
<td>H E g443</td>
<td>Substance Abuse and Health Education</td>
<td>3 cr</td>
</tr>
<tr>
<td>H E 473</td>
<td>Health Program Marketing</td>
<td>3 cr</td>
</tr>
<tr>
<td>H E 490</td>
<td>Practicum—Health Education</td>
<td>3 cr</td>
</tr>
<tr>
<td>HCA 350</td>
<td>Organizational Behavior in Healthcare</td>
<td>3 cr</td>
</tr>
<tr>
<td>HCA 384</td>
<td>Human Resource Management in Healthcare Organizations</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

*Must also complete 6 credit hours of upper-division H E courses

### Community/Worksite Health Emphasis (minimum of 40 credits)*

In addition to the Health Education Major Core, the following courses are required in the Community/Worksite Health Emphasis:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>H E 210</td>
<td>Medical Terminology and Communication</td>
<td>2 cr</td>
</tr>
<tr>
<td>H E 332</td>
<td>Community and Public Health</td>
<td>3 cr</td>
</tr>
<tr>
<td>H E 383</td>
<td>Epidemiology</td>
<td>3 cr</td>
</tr>
<tr>
<td>H E g443</td>
<td>Substance Abuse and Health Education</td>
<td>3 cr</td>
</tr>
<tr>
<td>H E g445</td>
<td>Human Sexuality and Health Education</td>
<td>3 cr</td>
</tr>
<tr>
<td>H E 473</td>
<td>Health Care Marketing</td>
<td>3 cr</td>
</tr>
<tr>
<td>H E 490</td>
<td>Practicum—Health Education</td>
<td>3 cr</td>
</tr>
<tr>
<td>HCA 350</td>
<td>Organizational Behavior and Health Care</td>
<td>3 cr</td>
</tr>
<tr>
<td>HCA 384</td>
<td>Human Resource Management in Healthcare Organizations</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

*Must also complete 6 credit hours of upper-division H E courses

### School Health Emphasis

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 496</td>
<td>Secondary Education</td>
<td>7-14 cr</td>
</tr>
<tr>
<td>H E 430</td>
<td>Curriculum and Methods in Health Education</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

### Health Education Minor

**Prerequisite:**

Admission to Teacher Education Program

**Required Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>H E 200</td>
<td>Promoting Wellness</td>
<td>2 cr</td>
</tr>
<tr>
<td>H E 201</td>
<td>Selected Topics in Health Education: Trust and Self Esteem</td>
<td>1 cr</td>
</tr>
<tr>
<td>H E 340</td>
<td>Fitness and Wellness Programs</td>
<td>3 cr</td>
</tr>
<tr>
<td>H E 340L</td>
<td>Fitness and Wellness Programs Lab</td>
<td>0 cr</td>
</tr>
<tr>
<td>H E 430</td>
<td>Curriculum and Methods in Health Education</td>
<td>3 cr</td>
</tr>
<tr>
<td>H E g442</td>
<td>Environmental Health and Health Education</td>
<td>2 cr</td>
</tr>
<tr>
<td>H E g443</td>
<td>Substance Abuse and Health Education</td>
<td>2 cr</td>
</tr>
<tr>
<td>H E g444</td>
<td>Human Sexuality and Health Education</td>
<td>2 cr</td>
</tr>
<tr>
<td>H E g445</td>
<td>Human Sexuality and Health Education</td>
<td>2 cr</td>
</tr>
<tr>
<td>NTD 139</td>
<td>Consumer Nutrition</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

**TOTAL CREDITS FOR HEALTH EDUCATION DEGREE:** 42-51 cr

**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. The student must choose any two of the school health emphasis courses from the following H E 201 listings: Trust and Self-Esteem, Stress and Emotional Health, Consumer Health.

### Addiction/Dependency Counselor Certification

Any Health Education majors who wish Idaho CADC certification must complete the following coursework and pass the ISAS Level I exam. Two courses are taught each semester and will be listed in the Class Schedule; contact the Department of Health and Nutrition Sciences to learn which courses will be scheduled in the future.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>H E 230</td>
<td>Introduction to Addictions</td>
<td>3 cr</td>
</tr>
<tr>
<td>H E 232</td>
<td>Helping Theories</td>
<td>3 cr</td>
</tr>
<tr>
<td>H E 233</td>
<td>Harmful and Illicit Substances</td>
<td>3 cr</td>
</tr>
<tr>
<td>H E 234</td>
<td>Blood Born Illness</td>
<td>1 cr</td>
</tr>
<tr>
<td>H E 235</td>
<td>Chemical Dependency and the Family</td>
<td>3 cr</td>
</tr>
</tbody>
</table>
Health Education

Minor Nonteaching (21 credits)

Prerequisite: Admission to Health Education Program

In addition to the Health Education Major Core, the following courses are required in the School Health emphasis:

- **H E 200** Promoting Wellness 3 credits
- **H E 287** Healthful Cooking 2 credits
- **H E 234** Blood Borne Illness 1 credit
- **H E 340** Fitness and Wellness Programs 3 credits
- **H E 312** Ethics for the Addictions Counselor 3 credits
- **H E 313** Practicum for the Chemical Dependency Counselor 3 cr

**Health Education Courses**

- **H E 100** Driver Training and Traffic Safety 1 credit. Basic instruction and procedures in the operation of motor vehicles, defensive driving, and general traffic safety. Classroom, driving simulation, and range and road experience. D
- **H E 160** Rape Aggression Defense I credit. Strategies for self-defense in physically threatening situations. Methods to enhance possibilities for avoidance of physical harm are also covered. Cross-listed as P E and W S 160. F, S
- **H E 190** Alcohol and Drug Awareness I 1 credit. Essential elements of identification and recognition of behaviors relating to substance abuse; discussion of laws pertaining to illegal substance use; costs and programs that deal primarily with the intervention and treatment of drug and alcohol abuse. F, S
- **H E 200** Promoting Wellness 3 credits. Survey of the issues and topics that most affect health and wellness, with emphasis on intelligent self-direction of health behaviors. Topics address individual health assessments and decision-making skills. F, S
- **H E 201** Selected Topics in Health Education 1 credit. Topical courses emphasizing the effects of individual lifestyle choices on health. Topics include stress and emotional health, consumer health, and trust and self-esteem. May be repeated for up to 3 credits. F, S
- **H E 210** 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. Cross-listed as HCA 210. F, S
- **H E 221** Introduction to Health Education 1 credit. 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
- **H E 230** 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 specific populations. PREREQ: Admission to Health and Nutrition Science or permission of instructor. Se
- **H E 232** 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. PREREQ: Admission to Health and Nutrition Science or permission of instructor. Su
- **H E 233** 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, over-dose, and withdrawal. PREREQ: Admission to Health and Nutrition Science or permission of instructor. Su
- **H E 234** 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. PREREQ: Admission to Health and Nutrition Science or permission of instructor. Se
- **H E 235** Chemical Dependency and the Family 3 credits. Provides an overview of functional and dysfunctional families, the impact of chemical dependency on individual and family systems; and treatment modalities and appropriate referral resources. PREREQ: Admission to Health and Nutrition Science or permission of instructor. Se
- **H E 270** 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 for 4 credits. PREREQ: Approval of instructor. F, S
- **H E 287** 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 139 or NTD 239. S
- **H E 290** 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. PREREQ: H E 190. F, S
- **H E 310** 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. PREREQ: Admission to Health and Nutrition Science or permission of instructor. Se
- **H E 311** 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. PREREQ: Admission to Health and Nutrition Science or permission of instructor. Se
- **H E 312** 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. PREREQ: Completion of all other Addiction Studies courses. Se
- **H E 314** 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. Se
- **H E 340** 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. F
- **H E 342** 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 interaction between spirituality and health; and emotional health-related topics such as anger, depression and stress, and sleep deprivation. PREREQ: Admission to Health and Nutrition Science or permission of instructor. F
- **H E 350** Driver and Traffic Safety Education 1 2 credits. Comprehensive study of factors basic to responsible driving. Practical application to improve driving skills and understanding of the organization, administration, and planning of a driver traffic safety education curriculum. Su
- **H E 383** 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. F
- **H E 401** Issues in Health and Wellness 1-3 credits. Contemporary health and wellness issues emphasizing education interventions and application. Topics may include: death and dying, computer technology in health, healthy aging, motivation, emergency preparedness, alternative and complementary medicine, international health. May be repeated for up to 6 credits with different content. PREREQ: Permission of instructor. F, S, Su
HE 410 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: Permission of instructor. F, Su, D

HE 420 Health Planning and Implementation 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: H E g410. S, D

HE 425 Patient Education Skills 2 credits. Foundations and application of organizational and communication skills which promote a positive atmosphere for patient education in clinical and workplace settings. PREREQ: H E 340 and H E g410 or permission of instructor. S, D

HE 430 Curriculum and Methods in Health Education 3 credits. Curriculum planning, implementation, methodology, and evaluative procedures utilized in the school health education setting. Emphasis will be placed on the integration of content and practical experiences. S

HE 432 Community and Public Health 3 credits. Aspects of the community that relate to health; identification and analysis of community and public health programs; organizational patterns 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: H E g410. F, D

HE 435 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: H E 420. S, D

HE 441 Driver and Traffic Safety Education II 2 credits. Development of student learning activities in driver and traffic safety education. Directed laboratory teaching experience includes teaching of beginning drivers in classroom and behind-the-wheel phases. PREREQ: H E 350. S

HE 442 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. PREREQ: Admission to a Health and Nutrition Science program or permission of instructor. S, D

HE 443 Substance Abuse and Health Education 3 credits. Study of the physical, psychological, sociological, and environmental factors related to drug use with emphasis on school and community prevention programs. PREREQ: Admission to a Health and Nutrition Science program or permission of instructor. F, D

HE 445 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.

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 DI

b. 85% of graduates will pass the registration examination upon the first try based upon a five year average.

c. 90% of graduates will pass the registration examination 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

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, foodservice 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.
Outcome Measures
a. Students will be assigned learning experiences in a minimum of two different experiential sites for both foodservice, community courses and one experiential site for medical nutrition therapy courses.

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 achieve advanced level practice or have a leadership role in a professional organization within 5 years of graduation.

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 101, 102, 103; BIOL 101, 221, 221L, 301, 302; ENGL 101, 102; and NTD 104, 204, 239.

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. Applications are awarded to begin the following fall semester. Requirements for the DPD include:

a. 3.0 accumulative grade-point-average or above;

b. 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.

2. Official sealed transcripts from all colleges and universities other than ISU (see conditions above)

3. A typed letter of application stating reasons for selected dietetics as a career and professional goals.

4. A non-refundable application of $20 (make check payable to the Department of Health and Nutrition Sciences)

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
Dept. of Health and Nutrition Sciences
Idaho State University
921 S. 8th Ave. STOP 8109
Pocatello, ID 83209-8109

Pre-Dietetics Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 101, 101L</td>
<td>Biology I, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 221, 221L</td>
<td>Introductory Microbiology, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 301, 301L</td>
<td>Anatomy and Physiology Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 302, 302L</td>
<td>Anatomy and Physiology Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>CHEM 101</td>
<td>Introduction to General Chemistry</td>
<td>3 cr</td>
</tr>
<tr>
<td>CHEM 102, 103</td>
<td>Introduction to Organic and Biochemistry, and Lab</td>
<td>3 cr</td>
</tr>
<tr>
<td>COMM 101</td>
<td>Principles of Speech</td>
<td>3 cr</td>
</tr>
<tr>
<td>ECON 201</td>
<td>Principles of Macroeconomics</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 101</td>
<td>English Composition</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 102</td>
<td>Critical Reading and Writing</td>
<td>3 cr</td>
</tr>
<tr>
<td>HCA/E 210</td>
<td>General Chemistry and Communication</td>
<td>2 cr</td>
</tr>
<tr>
<td>MATH 143</td>
<td>College Algebra</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 253</td>
<td>Introduction to Statistics</td>
<td>3 cr</td>
</tr>
<tr>
<td>NTD 104</td>
<td>Foods</td>
<td>3 cr</td>
</tr>
<tr>
<td>NTD 204</td>
<td>Meal Management</td>
<td>2 cr</td>
</tr>
<tr>
<td>NTD 239</td>
<td>Nutrition</td>
<td>3 cr</td>
</tr>
<tr>
<td>PSYC 101</td>
<td>Introduction to General Psychology</td>
<td>3 cr</td>
</tr>
<tr>
<td>SOC 101</td>
<td>Introduction to Sociology</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

In addition: University General Education Requirements Goals 6, 7 or 8, 9 or 10A or 10B

Didactic Program in Dietetics Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 201</td>
<td>Principles of Accounting I</td>
<td>3 cr</td>
</tr>
<tr>
<td>MGT 312</td>
<td>Individual and Organizational Behavior</td>
<td>3 cr</td>
</tr>
<tr>
<td>NTD 300</td>
<td>Medical Nutrition Therapy I</td>
<td>3 cr</td>
</tr>
<tr>
<td>NTD 300L</td>
<td>Medical Nutrition Therapy I Laboratory</td>
<td>2 cr</td>
</tr>
<tr>
<td>NTD 301</td>
<td>Medical Nutrition Therapy II Laboratory</td>
<td>2 cr</td>
</tr>
<tr>
<td>NTD 301L</td>
<td>Medical Nutrition Therapy II Laboratory</td>
<td>2 cr</td>
</tr>
<tr>
<td>NTD 360</td>
<td>Nutrition Through the Lifecycle</td>
<td>3 cr</td>
</tr>
<tr>
<td>NTD 312</td>
<td>Quantity Foods</td>
<td>2 cr</td>
</tr>
<tr>
<td>NTD 312L</td>
<td>Quantity Foods Laboratory</td>
<td>1 cr</td>
</tr>
<tr>
<td>NTD 407</td>
<td>Principles of Community Nutrition</td>
<td>3 cr</td>
</tr>
<tr>
<td>NTD 408</td>
<td>Applications in Community Nutrition</td>
<td>3 cr</td>
</tr>
<tr>
<td>NTD 410</td>
<td>Foodservice Systems</td>
<td>3 cr</td>
</tr>
<tr>
<td>NTD 410L</td>
<td>Foodservice Systems Management Laboratory</td>
<td>2 cr</td>
</tr>
<tr>
<td>NTD g457</td>
<td>Experimental Foods</td>
<td>3 cr</td>
</tr>
<tr>
<td>NTD g461</td>
<td>Nutritional Biochemistry</td>
<td>3 cr</td>
</tr>
<tr>
<td>NTD g470</td>
<td>Dietetics Senior Seminar</td>
<td>2 cr</td>
</tr>
<tr>
<td>NTD g685</td>
<td>Nutritional Biochemistry II</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

In addition: Electives to total 128 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 Commission on Accreditation for Dietetics Education (CADE), 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 Commission on Dietetic Registration (CADE) of the American Dietetic Association, 120 S. Riverside Plaza, Suite 2000, Chicago, Illinois, 60606-6995. Phone: 800-877-1600.

2. A minimum grade point average of 3.00 is required for admission.

3. Sixteen (16) students, eight (8) in Pocatello and eight (8) in Boise, 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 packets can be obtained from the Department of Health and Nutrition Sciences at (208) 282-2729. 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 sixteen (16) internship positions - Eight (8) interns in Boise, and eight (8) interns in Pocatello.

**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 Boise, 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 Department of Health and Nutrition Sciences 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

Dept. of Health and Nutrition Sciences
921 S. 8th Ave. Stop 8109
Pocatello, ID 83209-8109

Send BOISE Application to:

**Idaho State University - Boise**

Ruth Schneider, MPH, RD, LD

12301 W. Explorer Dr., Suite 102
Boise, ID 83713

**Required Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NTD 488</td>
<td>Internship in Dietetics I</td>
<td>15 cr</td>
</tr>
<tr>
<td>NTD 489</td>
<td>Internship in Dietetics II</td>
<td>15 cr</td>
</tr>
</tbody>
</table>

* A $1000 course fee will be applied in addition to tuition for each NTD 488 and NTD 489.

**Nutrition and Dietetics Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NTD 104</td>
<td>Foods</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Fundamental processes underlying food preparation with emphasis on the chemical and physical properties of foods. Lecture and laboratory. F
NTD 139 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 204 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 104. S

NTD 239 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. PREREQ: CHEM 101; CHEM 102 recommended. F, S

NTD 300 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 300L. F

NTD 300L 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 300. F

NTD 301 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: NTD 300 and NTD 300L. COREQ: NTD 301L. S

NTD 301L 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: NTD 300 and NTD 300L. COREQ: NTD 301. S

NTD 312 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: NTD 104 and NTD 204. COREQ: NTD 312L. F

NTD 312L Quantity Foods Laboratory 1 credit. Practical application of food production methods in various facilities. COREQ: NTD 312. F

NTD 340 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 301, BIOL 302, or HO 111. F, S

NTD 360 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: NTD 239. F

NTD 407 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 those at highest risk. PREREQ: NTD 360, or NTD 239 and permission of instructor. F

NTD 408 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: NTD 407. S

NTD g409 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 410 Foodservice Systems Management 3 credits. Principles and concepts of foodservice management planning, organization, and controls. Development of skills through projects in foodservice facilities. PREREQ: NTD 312 and NTD 312L. COREQ: NTD 410L. S

NTD 410L Foodservice Systems Management Laboratory 2 credits. Practical application of foodservice management skills in various facilities. COREQ: NTD 410. S

NTD g439 Sports Nutrition 3 credits. Nutrition recommendations for competitive and recreational athletic performance. Rationale for nutrition practices through an examination of individual nutrient metabolism. Controversies and misinformation addressed. PREREQ: NTD 239. D

NTD g457 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 104. F

NTD g461 Nutritional Biochemistry 1 3 credits. Advanced study of nutrition science, including protein, carbohydrate, lipid, vitamin, and mineral metabolism. Introduction to research methodology and professional literature. PREREQ: NTD 239, CHEM 101, CHEM 102, and CHEM 103 or higher levels of chemistry including inorganic, organic, and biochemistry. F

NTD 470 Dietetics Senior Seminar 2 credits. Current issues in food and nutrition. Discussion of research and application to practice. PREREQ: Senior in Dietetics. S

NTD g481 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 g485 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: NTD g461 or permission of instructor. S

NTD 488 Internship in Dietetics I 15 credits. Supervised field experience at regional health care facilities, food service establishments, and community programs. PREREQ: Admission into Dietetic Internship program. Graded S/U. F, S

NTD 489 Internship in Dietetics II 15 credits. Continuation of NTD 488 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. PREREQ: NTD 488. Graded S/U. F, S

NTD 492 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 g495 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
Learning Goals
The Department of Health Care Administration 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:

Bachelor of Science in Health Care Administration

Courses Which Fulfill Both General Education Goals and Major Requirements

<table>
<thead>
<tr>
<th>Goal 11</th>
<th>Goal 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 201</td>
<td>Principles of Microeconomics 3 cr</td>
</tr>
<tr>
<td>ANTH 100</td>
<td>General Anthropology 3 cr</td>
</tr>
<tr>
<td>PSYC 101</td>
<td>Introduction to General Psychology I 3 cr</td>
</tr>
<tr>
<td>SOC 101</td>
<td>Introduction to Sociology 3 cr</td>
</tr>
</tbody>
</table>

Other Required Courses

| ECON 202 | Principles of Microeconomics 3 cr |
| ECON 303 | Health Economics 3 cr |
| MATH 143 | College Algebra 3 cr |

TOTAL: 9 cr

Business Core Requirements

| ACCT 201 | Principles of Accounting I 3 cr |
| ACCT 202 | Principles of Accounting II 3 cr |
| BA 301 | Professional Development Seminar II 1 cr |
| CIS 301 | Information Systems and Problem Solving 2 cr |
| FIN 315 | Corporate Financial Management 3 cr |
| MGT 216 | Business Statistics II 3 cr |
| MGT 217 | Individual and Organization Behavior 3 cr |
| MGT 329 | Operations/Production Management 3 cr |
| MKTG 325 | Basic Marketing Management 3 cr |

TOTAL: 18 cr

Health Care Administration Core Requirements

| HCA 115 | U.S. Health System 3 cr |
| HCA 120 | Health and Society 2 cr |
| HCA 215 | Healthcare Leadership 3 cr |
| HCA 230 | Insurance and Reimbursement 2 cr |
| HCA 230 | Health Information Systems 3 cr |
| HCA 240 | Healthcare Policy 2 cr |
| HCA 375 | Health Law and Bioethics 3 cr |
| HCA 384 | Human Resource Management in Health Care Organizations 3 cr |
| HCA 453 | Healthcare Finance 3 cr |
| HCA 455 | Health Organization Management and Strategy 3 cr |
| HCA 460 | Operations and Quality 3 cr |
| HCA g473 | Marketing for Health Care Organizations 3 cr |
| HCA 495 | Administrative Internship 4 cr |

Plus 2 credits from the following courses:

| HCA 352 | Long Term Care Management 2 cr |
| HCA 353 | Physician Practice and Ambulatory Care Management 2 cr |
| HCA 354 | Health Management Communication 2 cr |

TOTAL: 66 cr

Elective courses
The student is required to select 58 semester hours of goal and elective courses. Elective courses should be selected according to the student’s interests and career needs, in conjunction with a faculty advisor. No more than a total of 32 credit hours (required and elective) may be taken in the College of Business.

Total required credits for Bachelor of Science in Health Care Administration: 128.

Admission and Program Graduation Requirements
Application forms for admission to the major in health care administration can be accessed on line or can be requested from the department office. Completed application forms and copies of transcripts of previous college work must be submitted to the department not before the end of the student’s first semester, sophomore year. Applications are considered by the department’s admission committee as they are received. Cumulative college or university grade point averages of 2.75 or higher are required for admittance as a major. The following courses are prerequisites for admission as health care administration major: ACCT 201, ECON 201, HCA 115, Goal 1, Goal 2, and MATH 143.

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 the above required courses will not be admitted and if admitted will be dropped from the Bachelor of Science program. All such decisions will be reviewed by the department’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.

HCA 400-level courses are reserved for HCA majors. Non-HCA majors must secure the permission of the instructor to enroll in HCA 400-level courses.
Bachelor of Business Administration, with a Major 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 minor 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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 120</td>
<td>Foundations of Computer Programming</td>
<td>3 cr</td>
</tr>
<tr>
<td>CIS 285</td>
<td>Introduction to Software and Systems Architecture</td>
<td>3 cr</td>
</tr>
<tr>
<td>CIS g403</td>
<td>Systems Analysis and Logical Design</td>
<td>3 cr</td>
</tr>
<tr>
<td>CIS g407</td>
<td>Database Design and Implementation</td>
<td>3 cr</td>
</tr>
<tr>
<td>CIS g411</td>
<td>Intermediate Information Assurance</td>
<td>3 cr</td>
</tr>
<tr>
<td>CIS g485</td>
<td>Network and Communications Systems</td>
<td>3 cr</td>
</tr>
<tr>
<td>MGT g482</td>
<td>Project Management</td>
<td>3 cr</td>
</tr>
<tr>
<td>HCA 115</td>
<td>U.S. Health System</td>
<td>3 cr</td>
</tr>
<tr>
<td>HCA 330</td>
<td>Health Information Systems</td>
<td>3 cr</td>
</tr>
<tr>
<td>HCA 460</td>
<td>Operations and Quality</td>
<td>3 cr</td>
</tr>
<tr>
<td>HCA 489</td>
<td>Health Care Information Systems Practicum</td>
<td>3 cr</td>
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<tr>
<td>TOTAL:</td>
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<td>33 cr</td>
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Health Care Administration Courses

HCA 110 Introduction to the Allied Health Professions 2 credits. Introduction to the allied health professions with emphasis on interrelationships and the team approach to health care. F, S

HCA 115 U.S. Health System 3 credits. An introductory, comprehensive overview of the healthcare industry, health and disease, health professions, institutions, populations, and reimbursement, addressed from the three point perspective of history, terminology, and current issues. F

HCA 120 Health and Society 2 credits. The theoretical foundations of epidemiology, public health, and medical sociology are used to explore and understand the personal and societal impacts of disease. F

HCA 210 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. Cross-listed as H E 210. F, S

HCA 215 Healthcare Leadership 3 credits. This course actively teaches the relational, operational, and analytical skills key to success in health management. S

HCA 230 Insurance and Reimbursement 2 credits. In-depth examination of insurance and reimbursement practiced in today's healthcare industry; their history, current status, and future. Topics include fee-for-service, prospective and retrospective reimbursement, public and private insurance systems, and managed care. PREREQ: HCA 115. S

HCA 330 Health Information Systems 3 credits. An overview of information system methodologies and approaches in the management 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 115 and MGT 216. F

HCA 340 Healthcare Policy 2 credits. This course investigates 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. PREREQ: HCA 230. F

HCA 350 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 352 Long-Term Care Management 2 credits. The management of nursing homes and other long-term facilities. Includes supervisory policies, labor relations, human relations, gerontology and geriatrics, nutrition and housekeeping, patient care, reimbursement policies, purchasing, inventory, and financial analysis. F

HCA 353 Physician Practice and Ambulatory Care Management 2 credits. The fundamentals of group practice and ambulatory care management. Includes leadership, planning, marketing, IT, business operations, physician/hospital relationships, and basic principles of management applied to the outpatient setting. PREREQ: HCA 115, 120, 215, 230. D

HCA 354 Health Management Communication 2 credits. Advanced management communication skills for managers in health settings. This speaking and writing intense course includes topics such as conflict management, negotiating, report writing, grant writing, and context specific presentation preparation and delivery. PREREQ: HCA 115, 120, 215, 230. D

HCA 375 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. S

HCA 384 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. PREREQ: HCA 350 or MGT 312. F

HCA g450 Special Topics in Healthcare 1-3 credits. Topics relevant to health professionals. May be repeated for up to 9 credits with different titles or content. Graded S/U. D

HCA 453 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 202 and FIN 315. S

HCA 455 Health Organization Management and Strategy 3 credits. The application of managerial concepts and practices to healthcare organizations. Compares and contrasts governance, strategy, structure, firm conduct, and performance across different sectors, levels, and types of health organizations. PREREQ: HCA 330, HCA 375, HCA 384 and MGT 312. F

HCA 460 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 300 level courses and MGT 329, or permission of instructor. S


HCA 481 Independent Problems in Health Services Administration 1-3 credits. Student selects an area of special interest through
BIOLOGY
PSYCHOLOGY and SOCIOLOGY
MATHEMATICS (1 course)

Therapy Education. Graduate Program is accredited by the Education. The Occupational Therapy on Accreditation of Physical Therapy Graduate Program is accredited by the Commission on Accreditation of Physical Therapy Education. This academic year, both graduate degree programs are granted after successful completion of all academic and clinical requirements. 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.

Department of Physical and Occupational Therapy

Chair and Associate Professor: Helgeson
OT Program Director and Assistant Professor: Ekman
Professor: Urfer
Associate Professors: Creelman, Devine
Assistant Professor: Dye
Clinical Assistant Professors: Gee, Jackman, Peterson, Ralphs, Seiger, Thompson
Adjunct Faculty: Alexander, Anderson, Meldrum, Rodnick, Owens

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 3.00 overall GPA for all prerequisite course work and a 3.0 GPA in each science area is required for consideration for admission into either program. Applicants must additionally meet all requirements for admission to the Graduate School. In addition to specific course prerequisites, applicants will have to provide evidence of having worked in a physical therapy or an occupational therapy setting as an aide or volunteer.

Undergraduate students preparing for physical or occupational therapy should choose a major which is of interest to them and which will assist in completion of prerequisite course work. Baccalaureate students will have advisors in their major department, but should also seek additional health professions advising through the Department of Biological Sciences. Students who have completed a baccalaureate degree and who are completing prerequisites for physical or occupational therapy should call the Department of Physical and Occupational Therapy for appropriate advising. For further information on physical therapy or occupational therapy entrance requirements and program description, refer to the Graduate Catalog or department website at http://www.isu.edu/dpot/.

Pre-Physical Therapy Preparation
Preparation should consist of a strong background in natural and social sciences. Any undergraduate major is acceptable.

- 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 be completed within the last 7 years. Human anatomy and physiology courses MUST be listed in Biology, Zoology, Anatomy or Physiology Departments for fulfillment of this requirement.

- CHEMISTRY (2 courses)

1 & 2. Introductory Chemistry with laboratory. Must be courses for science majors. 2 semesters or 2-3 quarters. Must be a more recently completed chemistry course at upper division or graduate level with laboratory. Must also meet this requirement.

- PHYSICS (2 courses)

1 & 2. Introductory Physics with laboratory. Must be courses for science majors. 2 semesters or 2-3 quarters. Must be a more recently completed physics course at upper division or graduate level with laboratory. Must also meet this requirement.

- MATHEMATICS (1 course)

1. Statistics - 3 or more units. Research methods or tests & measurements courses 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 or Motor Development Learning (2-3 credits).

4. Course in Exercise Physiology (2-3 credits).

Computer Competence and Technical Writing
Applicants must be competent in working with computers and able to use word processing and spreadsheet software prior to entering into the program. A course in technical writing is recommended.

Pre-Occupational Therapy Preparation

Occupational Therapy is a profession that uses occupation to promote well-being and health among people of all ages and abilities. Occupations are goal directed, meaningful pursuits that occupy a person’s time each day. Occupations include work and productive activities, self care or care of others, and leisure/recreational activities.

Occupational therapists adapt the environment, tasks, or techniques to meet individual needs while helping each client develop new skills necessary to function productively. Occupational therapists view every aspect of a client’s life as important to his/her health. Occupational therapy seeks to improve the quality of life for individuals who are at risk for physical, cognitive, mental or psychosocial impairments.

Demand for occupational therapy will increase to address the needs of a grow-
Prerequisites

- **SOCIAL BEHAVIORAL SCIENCE** (4 courses, 3 credits each)
  - Human Development - 1 semester
  - Sociology - 1 semester
  - Abnormal Psychology - 1 semester
  - Cultural Anthropology - 1 semester

- **BIOLOGY** (2 courses, 4 credits each)
  - 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. Human anatomy and physiology courses MUST be listed in Biology, Zoology, Anatomy or Physiology Departments for fulfillment of this requirement.

- **CHEMISTRY** (1 course, 4 credits)
  - 1. Introductory Chemistry with laboratory. Must be a course for science majors. 1 semester. A more advanced chemistry course at upper division or graduate level with laboratory may also meet this requirement.

- **MATHEMATICS** (1 course)
  - 1. Statistics - 3 or more units. Research methods or tests & measurements courses will NOT meet this requirement.

- **ENGLISH/COMMUNICATION** (2 courses)
  - 1. Composition - 3 credits
  - 2. Speech Communication - 2 or 3 credits
  - 3. Technical Writing (not required, but highly recommended) - 3 credits

- **OTHER REQUIRED COURSES**
  - At least 5 courses from this category are required, 3 credits each, chosen from:
    - economics
    - history
    - education
    - humanities
    - ethics
    - literature
    - fine arts
    - philosophy
    - foreign language

- **HIGHLY RECOMMENDED**:
  - Introductory Physics with Laboratory

**Curriculum for BUS Degree**

**Pre-entrants**

**Fall Semester**

| BIOL g474 | Human Anatomy | 5 cr |
| BIOL g486 | Pathophysiology | 5 cr |
| PTOT g412 | Professional Communication | 3 cr |
| PTOT g413 | Occupational Therapy | 3 cr |

**Spring Semester**

| PTOT g401 | Kinesiology and Biomechanics | 4 cr |
| PTOT g402 | Clinical Neuroscience | 5 cr |
| PTOT g421 | Self-Exploration | 3 cr |
| PTOT g422 | Occupational Performance | 3 cr |
| PTOT g442 | Occupational Performance Laboratory | 1 cr |

**Physical and Occupational Therapy Courses**

| PTOT g401 | Clinical Kinesiology and Biomechanics | 4 credits |
| PTOT g402 | Clinical Neuroscience | 5 credits |
| PTOT g412 | Professional Communication | 2 credits |
| PTOT g413 | Occupational Therapy | 3 credits |
| PTOT g421 | Self-exploration | 3 credits |
| PTOT g442 | Occupational Performance | 3 credits |
| PTOT g443 | Occupational Therapy Profession | 3 credits |
| PTOT g444 | Occupational Performance Laboratory | 1 credit |

Admission into the Occupational Therapy Program

Students may be admitted into the Master of Occupational Therapy (MOT) program through the normal graduate school admissions procedure by satisfactorily completing the prescribed prerequisite courses. Students may also have the option of early pre-professional entry into the program through the established guidelines of the Bachelor of University Studies (BUS) degree program. The BUS is an interdisciplinary degree designed for students whose career and educational goals are not met by traditional degrees offered at Idaho State University.

During the first three years, the student develops a course of study that will meet his/her interests, university degree requirements, and Occupational Therapy Program admission requirements. The student may apply to the BUS program during their junior year. The student completes the pre-professional year for occupational therapy during their senior year. With successful completion of the first professional year in the OT program, the student will receive a Bachelor of University Studies and continue directly into the MOT program over the next two years.

The combination of the BUS and Master of Occupational Therapy (MOT) Program creates a seamless entry into the occupational therapy profession, ensuring that all prerequisites in social, physical and biological sciences are completed in a timely manner. For further information on the BUS and the occupational therapy program, contact the Department of Physical and Occupational Therapy at (208) 282-4095.
Department of Physician Assistant Studies

Chair and Program Director: Schroeder
Medical Director: D’Souza
Associate Professor: Phelps
Assistant Professors: Whitaker
Clinical Assistant Professors: Bunnage, Dickey, Hachey, Martin
Research Assistant Professor: Howlett
Clinical Instructors: Miles, Papa, Talford

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 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.

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 g489 Independent Problems in Physician Assistant Studies 1-3 credits.
Explore the field of Physician Assistant through experiential learning predomi-
nantly by participating in research with PA program faculty. May be repeated for up to 3 credits. PREREQ: Approval of PA Director. F, S

Department of Radiographic Science

Chair and Associate Professor: Francis
Associate Professor: Hobbs
Assistant Professor: Mickelsen
Clinical Affiliate Faculty: Bird, Eng, Sargeant, Struhs, Wells

Overview
The Radiographic Science Program is designed to facilitate the development of professional radiologic technologists who have acquired the technical skills and knowledge necessary to fulfill the needs required in the medical imaging setting. The radiologic technologist plays a vital role in the health care team. Due to the rapid growth of technology in the health care setting, there is an increased demand for qualified personnel.

Vision/Mission
In keeping with the mission of Idaho State University as the lead institution in health sciences education in the state of Idaho, the Radiographic Science Program educates radiographers for today and tomorrow through baccalaureate education. This educational emphasis prepares students to meet the demands in an ever-evolving healthcare industry.

This is accomplished by:
- Academics—the faculty and staff are dedicated to pursuing excellence in all academic endeavors.
- Technology—to provide application of new technology in a profession that is predisposed to change while maintaining traditional values and emphasizing the needs of the patient.
- Access—to help meet the statewide and regional needs by providing access to quality education to prospective students located in Idaho and beyond.
- 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).

Admission Procedures
Admission to the Radiographic Science Program is competitive. Students will be evaluated using grades in pre-professional courses, and overall grade point average. A minimum grade point average of 2.25 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 $30 fee.
3. Complete the necessary prerequisite course work.
4. Submit transcripts of all college and/or university courses completed.

Application Deadline
The above admission procedures must be completed and submitted to the Department of Radiographic Science prior to February 15 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 (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) certified list of courses and descriptions of curriculum from accredited hospital-based and/or accredited vocational-technical programs.
   (c) copies of all college transcripts.
   (d) certification of completion of continuing education courses. Proficiency examinations or regular enrollment will be required of students when evidence of proficiency is lacking or inadequate.
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 and a bachelor’s degree option.

Bachelor of Science in Radiographic Science
The Bachelor of Science degree program in Radiographic Science is a four-year curriculum. During the first two years the student takes general education, basic science, and business courses at the University. During the two professional years the student studies and practices the clinical application of radiography at the University’s energized laboratory and at affiliated hospitals. The graduate is eligible to write the national examination for registration (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 as well as continuing education.

Upon completion of the program, the student 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 an ever-increasing need for well-trained radiographers. The combined curriculum for the program’s two degrees is shown below.

Associate of Applied Science in Radiographic Science
The Associate of Applied Science degree program is a three-year curriculum which consists of one pre-professional year, followed by two years in the program. The student studies and practices the clinical applications of radiography at the University’s energized laboratory and at affiliated hospitals. The graduate is eligible to write the national examination for registration (ARRT). The full curriculum is listed below for both the Bachelor and Associate degrees.

PREPROFESSIONAL YEAR I
Associate of Applied Science and Bachelor of Science
BIOL 101,101L Biology I, and Lab (Goal 4) 4 cr
BIOL 301,301L Anatomy and Physiology and Lab 4 cr
BIOL 302,302L Anatomy and Physiology and Lab 4 cr
CIS 101 Introduction to Computer Systems 3 cr
ENGL 101 English Composition (Part of Goal 1) 3 cr
COMM 101 Principles of Speech (Goal 2) 3 cr
HCA 110 Introduction to the Allied Health Professions 2 cr
HCA 210 Medical Terminology and Communication 2 cr
MATH 143 College Algebra 3 cr
PHYS 100 Essentials of Physics (Goal 5) 4 cr
PSYC 101* Introduction to General Psychology (Goal 12) 3 cr
R S 105 Introduction to Radiographic Science 1 cr
TOTAL: 36 cr

PREPROFESSIONAL YEAR II
Bachelor of Science
ACCT 201 Principles of Accounting 3 cr
HCA 350 Organizational Behavior in Health Care (Spring only) 3 cr
MGT 312 Individual and Organizational Behavior 3 cr
HCA 375 Health Care Law (Spring Only) 3 cr
HCA 384 Human Resource Management in Health Care Organizations (Fall Only) 3 cr
MGT 473 Personnel Management 3 cr
ART 100* Survey of Art (Goal 6) 3 cr
CHEM 101 Introduction to General Chemistry 3 cr
CHEM 111, 111L General Chemistry I, and Lab 5 cr
ECON 201* Principles of Macroeconomics (Goal 11) 3 cr
ENGL 102 Critical Reading and Writing (Goal 1) 3 cr
HIST 112* U.S. History II (to Present) (Goal 9) 3 cr
MATH 253 Introduction to Statistics (Goal 3) 3 cr
PHIL 101* Introduction to Philosophy (Goal 9) 3 cr
TOTAL: 33 or 35 cr

* These courses are suggested to fulfill university requirements; other courses may be substituted to satisfy University goal requirements.

PROFESSIONAL YEAR I
Fall Semester
R S 310 Radiographic Methods I 2 cr
R S 320/320L Radiographic Processing (with Lab) 2 cr
R S 325 Patient Care in Radiography 3 cr
R S 330 Radiographic Exposure (with Lab) 3 cr
R S 340 Laboratory Practicum I 1 cr
R S 389 Applied Radiography I 4 cr
TOTAL: 15 cr

Spring Semester
R S 311 Radiographic Methods II 2 cr
R S 341 Laboratory Practicum II 1 cr
R S 375 Pediatric Radiography 1 cr
R S 388 Radiation Protection 1 cr
R S 390 Applied Radiography II 4 cr
BIOL, p470 Sectional Anatomy 2 cr
PHYS 300 Medical Electronics 2 cr
PHYS 321 Radiologic Physics (with Lab) 2 cr
TOTAL: 15 cr

PROFESSIONAL YEAR II
Summer Semester
R S 488 Applied Radiography III 5 cr

Fall Semester
R S 312 Radiographic Methods III 2 cr
R S 342 Laboratory Practicum III 1 cr
R S 420 Radiologic Facility Organization (B.S. degree only) 1 cr
R S 450 Alternate Imaging Modalities and Radiation Therapy 1 cr
R S 460 Introduction to Radiographic Quality Assurance 2 cr
R S 489 Applied Radiography IV 6 cr
TOTAL: 13 cr

Spring Semester
BIOL 307 Radiobiology 3 cr
R S 430 Radiologic Pathology 2 cr
R S 441 Advanced Radiographic Methods I 1 cr
R S 470 Advanced Radiographic Exposure 2 cr
R S 481 Independent Study (Optional) 2 cr
R S 490 Applied Radiography V 6 cr
TOTAL: 14 or 16 cr

Academic Standards
A grade of “C” or better is required in all radiographic science, biology, physics, math, business, chemistry, and health care administration courses in the curriculum. A student who fails to achieve a minimum of a “C” grade in a course designated Radiographic Science (R S) will be dismissed from the program and prohibited from taking any further courses with the R S designation until the course(s) in question has/have been completed with (a) minimum grade(s) of “C.”
The student is required to reapply to the program, in writing, at least one (1) month prior to the first day of classes of the semester in which readmission is sought. Additional details regarding readmission can be found in the current Radiographic Science Student Handbook.

Radiographic Science Courses

R S 305 Introduction to Radiographic Science 1 credit. History of the profession, responsibilities of the technologist, professional development, radiation protection, areas of specialization. F, S, W

R S 310 Radiographic Methods I 2 credits. Theory and principles of radiographic examination of the extremities, shoulder girdle, and the pelvic girdle. F

R S 311 Radiographic Methods II 2 credits. Introduces the student to basic theory and principles of radiographic procedures of the abdomen and the chest. Emphasis is placed on radiographic examinations of visceral organs requiring the use of contrast media. S

R S 312 Radiographic Methods III 2 credits. Continuation of 311 emphasizing theory and principles of radiographic examinations of the vertebral column, cranium, and the facial bones. S

R S 320 Radiographic Processing 1 credit. Photographic technique including developing methodology and the chemical effects on radiographic film. F

R S 320L Radiographic Processing Laboratory 1 credit. Laboratory experience with photographic technique including developing methodology and the chemical effects on radiographic film. F

R S 325 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

R S 330 Radiographic Exposure 3 credits. Determination of radiographic exposure values with emphasis on radiographic quality and equipment used in the production of radiographs. F

R S 340 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

R S 341 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: R S 311 and R S 389. S

R S 342 Laboratory Practicum III 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: R S 312 and R S 390. S

R S 375 Pediatric Radiography 1 credit. Study of the theory and clinical application of pediatric radiography. S

R S 388 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

R S 389 Applied Radiography I 4 credits. Clinical applications of radiographic examinations with emphasis on the upper extremity, shoulder and chest. Graded S/U. F

R S 390 Applied Radiography II 4 credits. Clinical applications of radiographic examinations with emphasis on the lower extremity, hips, pelvis and abdomen. Graded S/U. S

R S 420 Radiologic Facility Organization 1 credit. Organization and operation of a radiology department. Emphasis on management, design, record systems, equipment, personnel and budgets. F

R S 430 Radiologic Pathology 2 credits. Study of the pathological processes of various diseases and disorders with emphasis on the demonstration of pathology on radiographs. F


R S 450 Alternate Imaging Modalities and Radiation Therapy 1 credit. An introduction to nuclear medicine, computerized axial tomography, ultrasonography, and radiation therapy. F

R S 460 Introduction to Radiographic Quality Assurance 2 credits. Study and application of equipment maintenance procedures to assure consistency in the contrast, density, and sharpness of radiographic films. F

R S 470 Advanced Radiographic Exposure 2 credits. In-depth study in establishing radiographic exposure values in new installations or when equipment is changed. F

R S 481 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

R S 488 Applied Radiography III 5 credits. Clinical application of radiographic examinations with emphasis on the abdomen, especially examinations requiring use of contrast media to include the esophagus. Graded S/U. Su


R S 490 Applied Radiography V 6 credits. Clinical application of radiographic examinations including portables and surgical procedures as well as tomography and arthrography. Graded S/U. S

R S 491 Seminar-Selected Topics 1-3 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

R S 495 Internship in Special Diagnostic Imaging 2 credits. Eight week internship providing opportunity to participate in diagnostic examinations requiring a special modality, e.g. peripheral or cardiac angiography, computerized tomography, ultrasound, magnetic resonance. PREREQ: Permission of instructor. D

Kassirka College of Health Professions
**College of Pharmacy**

Paul S. Cady, Ph.D., Interim Dean

**Department of Pharmacy Practice and Administrative Sciences**

Chair and Associate Professor: Owens
Professors: Adamcik, Cady, Culbertson, Ermamous, R. Force, Lott, Mason, Rhodes
Associate Professors: Cleveland, Gould, Heyneman, Hunt, Liday, Madaras-Kelly, Oliphant
Assistant Professors: Carr, Pettinger
Clinical Professor: Jue
Clinical Associate Professor: Hefflinger
Clinical Assistant Professors: Borzadek, Casperson, Davis, Eroschenko, Hachev, Ladd, Murdock, Pugmire, Steed Wadsworth
Visiting Clinical Assistant Professor: Jantz, Pugmire
Adjunct Faculty: Hoagland, Robison
Clinical Affiliate Faculty: Byron, Davis, Flowers, Gundlach, Munkelt, Payne, Reed, Robison, Sawyer, Shea, Silcock, Stander, Vanden Bosch, Wilson, Young
Emeriti: Galizia, Hurley, Sharp

**Department of Biomedical and Pharmaceutical Sciences**

Chair and Professor: Risinger
Professors: Bhushan, Crowell, Daniels, Diedrich, Dodson, Lai
Associate Professors: Bigelow, Eley, Wilson
Assistant Professor: Selvage
Emeriti: Cole, Fontenelle, Goetsch, Hillyard, Isaacs

**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 Pharmaceutical Association’s Code of Ethics of the Profession.

**Admission to the College of Pharmacy**

**Application**
Apply online at [http://pharmacy.isu.edu](http://pharmacy.isu.edu)

**Admission Criteria**

The recommended high school background for students planning to enter the preprofessional program at Idaho State University includes four units of mathematics and three units of natural science (biology, chemistry, and physics).

All of the preprofessional curriculum 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 encouraged to obtain pharmacy experience prior to applying for admission to the Doctor of Pharmacy program. Pharmacy experience can be gained through shadowing, volunteering or working in a paid position within a pharmacy.

To apply to the College of Pharmacy, a student must have a minimum cumulative grade point average (GPA) of 2.5 in all previous college academic courses. Admission is competitive; in recent classes, successful applicants had an accumulative GPA in excess of 3.0 with a class average of 3.6 GPA. 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 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 immunization compliance prior to entering the first professional year. A criminal background check will be required on all students.

**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 being from a pharmacist.

**Evaluation of Students for Admission**

Admission to the College of Pharmacy is limited to 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 as reflected in prepharmacy courses and references.

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](http://www.isu.edu/iso/admission). Upon completion of interviews, applicants are placed into three categories:

1. admission,
2. reserve for possible admission pending available positions, or
3. no admission.

As positions become available, students in the reserve admission category will be notified of their selection for admission.
Admission Under Special Circumstances

Transfer from Other Schools of Pharmacy

Students wishing to transfer from another college of pharmacy are considered competitive with prepharmacy students and must present the following materials to the Associate Dean of the College of Pharmacy:

1. A letter from the dean of the College of Pharmacy previously attended certifying the program (B.S. in Pharmacy or Pharm. D.) 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 courses of the previous semester. Successful completion is defined to mean that a grade point average of C (2.0) or better must be maintained in required courses. Students failing to meet minimal academic standards at the end of any semester must petition the Progressions Committee to further progress in the College.

A student who intends to take a required Idaho State University pharmacy course at another institution must receive written permission from the dean. This permission must be received prior to enrolling in the course.

Experiential Curriculum

Forty-two (42) weeks of the Doctor of Pharmacy curriculum are spent in a variety of patient care areas. 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 will be required to complete at least part of their last year at a site other than Pocatello.

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). Personal expenses including travel, food, and lodging while enrolled in off-campus programs are the student’s responsibility.

Pharmacy Extern Registration

All students are required to be licensed externs with the Idaho State Board of Pharmacy during all phases of the clinical program. 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 also must have earned an average GPA of 2.0 or better for all required pharmacy courses applied toward graduation. A minimum of 225 semester credits is required for graduation with the Doctor of Pharmacy.

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. By action of the Idaho Board of Pharmacy, 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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 101L</td>
<td>Biology I, and Lab (Goal 4)</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 235,235L</td>
<td>General Microbiology, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 301,301L</td>
<td>Anatomy and Physiology, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 302,302L</td>
<td>Anatomy and Physiology, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 432L</td>
<td>Biochemistry*</td>
<td>3 cr</td>
</tr>
<tr>
<td>CHEM 111,111L</td>
<td>General Chemistry I, and Lab</td>
<td>5 cr</td>
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<tr>
<td>CHEM 112,112L</td>
<td>General Chemistry II, and Lab</td>
<td>5 cr</td>
</tr>
<tr>
<td>MATH 160</td>
<td>Applied Calculus (Goal 3)</td>
<td>3 cr</td>
</tr>
<tr>
<td>CHEM 301,303</td>
<td>Organic Chemistry I, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>CHEM 302,304</td>
<td>Organic Chemistry II, and Lab</td>
<td>4 cr</td>
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<tr>
<td>PHYS 111</td>
<td>General Physics I</td>
<td>3 cr</td>
</tr>
<tr>
<td>ECON 201</td>
<td>Principles of Macroeconomics</td>
<td>3 cr</td>
</tr>
<tr>
<td>ECON 202</td>
<td>Principles of Microeconomics</td>
<td>3 cr</td>
</tr>
<tr>
<td>Electives</td>
<td>(minimum)</td>
<td>2 cr</td>
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</tbody>
</table>
General Education Requirements:
ENGL 101 English Composition 3 cr
ENGL 102 Critical Reading and Writing 3 cr (Goal 1)
COMM 101 Principles of Speech 3 cr (Goal 2)
Other General Education requirements for the Bachelor of Science degree
15 cr
3 of the 15 credits must be in Economics
(ECON 201 or ECON 202)
We strongly recommend that prepharmacy students take PSYC 101 Introduction to General Psychology 3 cr.
Note: Biochemistry will be a pre-pharmacy requirement for students applying during the 2009-2010 academic year for admission into the program in Summer 2010.

Additional recommended electives:
PHIL 201 Introduction to Logic 3 cr
PHYS 112 General Physics II 3 cr

Professional Curriculum
The professional curriculum requires four years of study. The first three years are a mix of academic courses and practice experiences. The fourth year is comprised of 42 weeks of clinical experiences.

The College of Pharmacy serves the State of Idaho. The Doctor of Pharmacy degree can be completed in either Pocatello or Meridian, Idaho. Students may complete their fourth year at our clinical sites in Idaho (Boise, Pocatello, Coeur d’Alene) or at our site in Reno, Nevada.

The first professional year provides a foundation in the basic and pharmaceutical sciences that includes physiology, biochemistry, pharmacology and pharmaceutical care. 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, hematologic/oncology and endocrine. Additional courses provide insight into the human relation aspects of pharmacy, dosage form design, pharmacy management and physical assessment. A series of case studies courses, designed to enhance the student’s knowledge base and problem-solving skills while focusing on the application of knowledge to specific patient cases, spans the first three years.

The last 42 weeks, or the fourth professional year, is devoted to full-time clinical experience in various pharmacy practice or, at the student’s option, research environments. Students will complete six-week experiences in various areas of practice. Students will also have the option of selecting an elective in an area of interest.

Given the length of the final year of the 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
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. S/he also must have earned an average GPA of 2.0 or better for all required pharmacy courses applied toward graduation. A minimum of 225 semester credits is required for graduation with the Doctor of Pharmacy.

Students are held responsible for meeting degree requirements in proper sequence. Frequent consultation between student and faculty advisor is encouraged.

First Professional Year (P-1) Curriculum

Summer Term
PHAR 911*** Introductory Practice Experience I 1 cr
Fall Semester
BIOL g432*** Biochemistry 3 cr
BIOL g449, g449R/PHAR 949, 949R Human Physiology I, and Recitation 4 cr
PHAR 910 First Year Recitation 0 cr
PHAR 921 Biological Basis of Drug Actions I 3 cr
PHAR 924 Physicochemical Basis of Drug Actions 3 cr
PHAR 941, 941L* Introduction to Pharmacy Practice and Literature I, and Lab 4 cr
TOTAL: 17 cr

Spring Semester
BIOL g456, g456R/PHAR 956, 956R Human Physiology II, and Recitation 4 cr
PHAR 905 Introduction to Clinical Problem Solving 2 cr
PPHAR 910 First Year Recitation 0 cr
HAR 912 Introductory Practice Experience II 1 cr
PHAR 922 Biological Basis of Drug Actions II 4 cr
PHAR 926 Basic Pharmacoeconomics and Calculations 3 cr
PHAR 942 Introduction to Pharmacy Practice and Literature II 3 cr
TOTAL: 17 cr

Second Professional Year (P-2) Curriculum

Fall Semester
PHAR 906 Case Studies in Pharmacy I 2 cr
PHAR 920 Second Year Recitation 0 cr
PHAR 927 Dosage Form Design and Compounding w/Lab 4 cr
PHAR 951 Pharmacotherapy Lab I 1 cr
PHAR 961 Pharmacotherapy I 4 cr
PHAR 962 Pharmacotherapy II 3 cr
PHAR 963 Pharmacotherapy III 3 cr
TOTAL: 17 cr

Spring Semester
PHAR 907 Case Studies in Pharmacy II 2 cr
PHAR 913 Introductory Practice Experience III 1 cr
PHAR 920 Second Year Recitation 0 cr
PHAR 944, 944L Social and Behavioral Medicine/Pharmaceutical Care, and Lab 4 cr
PHAR 964 Pharmacotherapy IV 3 cr
PHAR 965 Pharmacotherapy V 3 cr
TOTAL: 13 cr

Third Professional Year (P-3) Curriculum

Fall Semester
PHAR 908 Case Studies in Pharmacy III 2 cr
PHAR 930 Third Year Recitation 0 cr
PHAR 945, 945L Pharmacy Practice Management, and Lab 4 cr
PHAR 966 Pharmacotherapy VI 3 cr
PHAR 967 Pharmacotherapy VII 3 cr
PHAR 968 Pharmacotherapy VIII 4 cr
TOTAL: 16 cr

Spring Semester
PHAR 914 Introductory Practice Experience IV 1 cr
PHAR 930 Third Year Recitation 0 cr
PHAR 948 Pharmacy Law 2 cr
PHAR 952 Pharmacotherapy Lab IV 1 cr
PHAR 969 Pharmacotherapy IX 5 cr
PHAR 970 Pharmacotherapy X 4 cr
PHAR 971 Capstone Pharmacotherapeutics 3 cr
TOTAL: 16 cr

Electives
Electives (may be taken in any semester) 6 cr

Fourth Professional Year (P-4) Curriculum

Full Calendar Year
PHAR 980 Case Studies in Pharmacy Practice 7 cr
PHAR 981 Advanced Pharmacy Practice Experiences (APPE) 42 cr
PHAR 982 Professional Student Seminar 1 cr
TOTAL: 50 cr

* 45 hours lab with students rotating fall and spring.
** The requirement for PHAR 910 is fulfilled for students who provide evidence of completion of online coursework as well as externship in a licensed or public health pharmacy which has been approved by the College of Pharmacy, the State Board of Pharmacy that has authority over the pharmacy and which was supervised by a licensed preceptor. Students must be enrolled in PHAR 910 and have completed identified components of the course prior to obtaining extern requirements.
*** Biochemistry will be a pre-pharmacy course and will no longer be part of the professional curriculum starting in 2010.

College of Pharmacy
Joint Doctor of Pharmacy/Master of Business Administration

The College of Business and College of Pharmacy at Idaho State University offer a combined 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 201, ECON 202, ACCT 201 and ACCT 202.

- During the third professional year in the Pharm.D. program and the summer preceding that year, the student should take MBA 613, MBA 614, MBA 615 and MBA 616. These courses will satisfy six hours of electives required for the Pharm.D. curriculum. In addition, the completion of MBA 612 (Human Behavior in Organizations) will substitute for PPRA 945 (Pharmacy Management) required in the third professional year of the Pharm.D. curriculum.

- Six hours of specified experiential courses taken in the fourth professional year of the Pharm.D. program will satisfy six elective hours required in the M.B.A. curriculum.

- In the year following the fourth professional year of the Pharm.D. program, the student must return to campus to complete the second year of the M.B.A. curriculum, which includes MBA 621, MBA 622, MBA 623, MBA 624, MBA 625, MBA 626 and six hours of 600-level electives in the College of Business.

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. Prior to admission to the program, candidates must travel to Pocatello to complete an assessment process, which includes interviews and baseline evaluation of clinical skills.

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 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.

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.

**Community Pharmacy** - 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.

**Hospital Pharmacy** - 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 radiotherapeutics.

**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 experience in the conduct of research in the pharmaceutical sciences.

**Rural Health** - Provides practical experience, knowledge and skills necessary for the provision of pharmaceutical care services in rural and under-served health care settings.

**Total** for Doctor of Pharmacy degree, including a minimum of 6 Elective credits: 225 cr

*The following experiences are taken as PHAR 981:

- Ambulatory Care - 6 weeks
- Community Pharmacy - 6 weeks
- Hospital Pharmacy - 6 weeks
- Medicine - 6 weeks
- Pharmaceutical Care Emphasis ** - 12 weeks
- Elective - 6 weeks

**TOTAL:** 42 weeks

**Students select 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 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.

**Community Pharmacy** - 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.

**Hospital Pharmacy** - Emphasizes the distributive, communicative and managerial aspects of hospital pharmacy practice. For this experience, students are assigned to selected hospital pharmacy preceptors.

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The program is closely aligned with the Pharm.D. curriculum with the following changes and requirements:

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- During the third professional year in the Pharm.D. program and the summer preceding that year, the student should take MBA 613, MBA 614, MBA 615 and MBA 616. These courses will satisfy six hours of electives required for the Pharm.D. curriculum. In addition, the completion of MBA 612 (Human Behavior in Organizations) will substitute for PPRA 945 (Pharmacy Management) required in the third professional year of the Pharm.D. curriculum.

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- In the year following the fourth professional year of the Pharm.D. program, the student must return to campus to complete the second year of the M.B.A. curriculum, which includes MBA 621, MBA 622, MBA 623, MBA 624, MBA 625, MBA 626 and six hours of 600-level electives in the College of Business.

**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. Prior to admission to the program, candidates must travel to Pocatello to complete an assessment process, which includes interviews and baseline evaluation of clinical skills.
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 coursework.
4. Designated application fee.
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, the interview will take place, and the student will be allowed to take a written examination. This will allow students to interact with the faculty in a setting that will be similar to the clinical setting in which they will be working. The examination is not an admission test, but rather a tool to assist both the student and the faculty in evaluating the student’s baseline knowledge of clinical pharmacy. The examination may not be taken by students who are not members of the College of Pharmacy.

In addition to the above requirements, the student must take 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 near 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:

- PDNT 905 Introduction to Clinical Problem Solving 1 cr
- PDNT 918 Drug Literature Evaluation and Statistics 2 cr
- PDNT 938 Drug and Medical Informatics I cr
- PDNT 961 Pharmacotherapy I 3 cr
- PDNT 962 Pharmacotherapy II 3 cr
- PDNT 963 Pharmacotherapy III 2 cr
- PDNT 964 Pharmacotherapy IV 3 cr
- PDNT 965 Pharmacotherapy V 4 cr
- PDNT 966 Pharmacotherapy VI 3 cr
- PDNT 967 Pharmacotherapy VII 2 cr
- PDNT 968 Pharmacotherapy VIII 3 cr
- PDNT 969 Pharmacotherapy IX 4 cr
- PDNT 970 Pharmacotherapy X 4 cr
- PDNT 971 Pharmacotherapy XI (Capstone w recitation) 2 cr

TOTAL: 37 cr

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 938, PDNT 905 and then PDNT 918. 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

Graduation Requirements

Students must complete a minimum of 37 credit hours in the didactic portion of the program. In addition to the above requirements, students must complete one Advanced Pharmacy Care Practice Experience (APPE) for each 6-week period in which they are enrolled.

Elective

Students may choose one of the following electives:

- Ambulatory Care 6 weeks
- Medicine 6 weeks
- Pharmaceutical Care * 6 weeks

* The student may choose one six-week experience or Pharmaceutical 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 portion 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 (CPE). 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, 20 hours of CE will be conferred for the Medicine and Ambulatory Care practice experiences.

College of Pharmacy
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.
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 experiences in the broad areas of biochemistry, molecular biology, biotechnology, and medical or ecological applications of each. Majors gain experiences 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.

The student majoring in Microbiology, Clinical Laboratory Science, or Biochemistry is provided with a broad base of theoretical and practical knowledge which will qualify him or her either for an immediate career in microbiology, clinical laboratory science, or biochemistry or for further education in graduate or professional school. Men and women in the health professions use their microbiological and biochemical training daily to diagnose and treat disease conditions caused by bacteria, fungi, viruses, cancers, and biochemical imbalances. Food microbiologists and research scientists directly apply their knowledge of the basic principles of microbiology and biochemistry in the development and processing of their products. Doctors, nurses, and medical and dental technicians constantly utilize microbiology training in their work.

Core Requirements

Students pursuing a Bachelor of Science degree must satisfy goals 1 and 2, two of goals 6, 7, and 8, and three of goals 9, 10, 11, and 12. Goal 10 may be satisfied by either 10A or 10B. Students must also satisfy the core requirements listed below, the requirements for one of the biochemistry tracks, and 12 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.

Elective courses:

- CHEM 308: Drug Discovery 3 cr
- CHEM 309: Introduction to Toxicology 3 cr
- CHEM 310: Drug Abuse 2 cr
- CHEM 312: Immunopharmacology 2 cr
- CHEM 313: Infectious Diseases and Natural Products 3 cr
- CHEM 314: Pharmacology 3 cr
- CHEM 315: Behavioral Pharmacology 2 cr
- CHEM 316: Introduction to Endocrinology 2 cr
- CHEM 317: Pharmacogenomics 2 cr
- CHEM 318: Introduction to Parallel and Natural Products 3 cr
- CHEM 319: Special Topics in Pharmacology 3 cr
- CHEM 320: Diabetics for Health Sciences 2 cr
- CHEM 321: Neuropharmacology 3 cr
- CHEM 322: Special Topics in Pharmaceutical Science 1-3 cr

Required Courses:

PSCT 205: Drugs in Society 2 cr
PSCT 301: Introduction to Pharmacology 3 cr
PSCT 353: Introduction to Methods in Pharmaceutical Science 2 cr
PSCT 438: Pharmaceutical Science Research 2 cr

In addition, the student must take a minimum of 9 additional elective credits from the list below of elective courses.

Electives:

PSCT 308: Drug Discovery 3 cr
PSCT 309: Introduction to Toxicology 3 cr
PSCT 310: Drug Abuse 2 cr
PSCT 312: Immunopharmacology 2 cr
PSCT 313: Infectious Diseases and Natural Products 3 cr
PSCT 314: Pharmacology 3 cr
PSCT 315: Behavioral Pharmacology 2 cr
PSCT 316: Introduction to Endocrinology 2 cr
PSCT 317: Pharmacogenomics 2 cr
PSCT 318: Introduction to Parallel and Natural Products 3 cr
PSCT 319: Special Topics in Pharmacology 3 cr
PSCT 320: Diabetics for Health Sciences 2 cr
PSCT 321: Neuropharmacology 3 cr
PSCT 322: Special Topics in Pharmaceutical Science 1-3 cr

Track 1: Biological Chemistry (13 cr)
CHEM 211, 213 Inorganic Chemistry, and Lab 4 cr
CHEM 331, 333 Instrumental Analysis, and Lab 4 cr

Track 2: Biochemistry and Molecular Biology (16 cr)
Biol 301, 303L, g404, 404L, or g433, 433L Animal, or Plant, or Microbial Physiology, and Lab 4 cr
Biol g434, g434LMicrobial Diversity, and Lab 4 cr
Biol g444, g444LMolecular Biology, and Lab 4 cr
Biol g461 Advanced Genetics 3 cr
Biol g492 Seminar 1 cr

Track 3: Physiological Biochemistry (16 cr)
Biol 301, 301L. Anatomy and Physiology, and Lab 4 cr
Biol 302, 302L. Anatomy and Physiology, and Lab 4 cr
PSCT 205 Drugs in Society 2 cr
PSCT 301 Introduction to Pharmacology 3 cr
PSCT 353 Introduction to Methods in Pharmaceutical Sciences 2 cr
Biol g492 Seminar 1 cr

Electives

Choose a minimum of 16 credits, with at least 6 credits in Biological Sciences (Biol) and 6 credits in Chemistry (Chem). Advanced or experimental courses are acceptable. These courses satisfy the electives requirement only if they are not required for a specific Biochemistry track.

Biol 301, 301L. Anatomy and Physiology, and Lab 4 cr
Biol 302, 302L. Anatomy and Physiology, and Lab 4 cr
Biol 303, 303L. Principles of Animal Physiology, and Lab 4 cr
Biol 324, 324L. Developmental Biology and Lab 4 cr
Biol g404, g404LMolecular Biology, and Lab 4 cr
Biol g411K Molecular Biology Laboratory Methods 3 cr
Biol g415, g415LMolecular Neurobiology, and Lab 5 cr
Biol g417 Organic Evolution 3 cr
Biol g433, g433LMicrobial Physiology, and Lab 4 cr
Biol g434, g434LMicrobial Diversity, and Lab 4 cr
Biol g443 Endocrinology 3 cr
Biol g444, g444LMolecular Biology, and Lab 4 cr
Biol g449, g449R. PHAR 949, 949R Human Physiology, and Recitation 4 cr
Biol g451, g451LMicrobiology, and Lab 4 cr
Biol g456, g456R. PHAR 956, 956R Human Physiology II, and Recitation 4 cr
Biol g461 Advanced Genetics 3 cr
Biol g463, g463LHuman Pathophysiology, and Lab 4 cr
Biol g473, g473LMicrobial Physiology, and Lab 4 cr
Biol g475 General Virology 3 cr
Biol g477 or g478Bacterial or Animal Virology Laboratory 1 cr
Biol g481 and/or g482 Independent Problems (max. 2 credits) 2 cr
Biol g488 Advanced Radiobiology 3 cr
CHEM 211, 213 Inorganic Chemistry, and Lab 4 cr
CHEM 311 and/or 312 Introduction to Research (max. 2 cr) 2 cr
CHEM 331, 334 Instrumental Analysis, and Lab 4 cr
CHEM 365, 366 Synthetic Methods, and Lab 4 cr
CHEM g407* Inorganic Chemistry II 2 cr
CHEM g433, g437Environmental Chemistry, and Lab 3 cr
CHEM g453* Modern Experimental Physical Chemistry** 3 cr

CHEM 365, 366 Synthetic Methods, and Lab 4 cr
CHEM 492 Seminar 1 cr

Track 2: Biochemistry and Molecular Biology (16 cr)
Biol 301, 303L, g404, 404L, or g433, 433L Animal, or Plant, or Microbial Physiology, and Lab 4 cr
Biol g434, g434LMolecular Biology, and Lab 4 cr
Biol g444, g444LMolecular Biology, and Lab 4 cr
Biol g461 Advanced Genetics 3 cr
Biol g492 Seminar 1 cr

Track 3: Physiological Biochemistry (16 cr)
Biol 301, 301L. Anatomy and Physiology, and Lab 4 cr
Biol 302, 302L. Anatomy and Physiology, and Lab 4 cr
PSCT 205 Drugs in Society 2 cr
PSCT 301 Introduction to Pharmacology 3 cr
PSCT 353 Introduction to Methods in Pharmaceutical Sciences 2 cr
Biol g492 Seminar 1 cr

Electives

Choose a minimum of 16 credits, with at least 6 credits in Biological Sciences (Biol) and 6 credits in Chemistry (Chem). Advanced or experimental courses are acceptable. These courses satisfy the electives requirement only if they are not required for a specific Biochemistry track.

Biol 301, 301L. Anatomy and Physiology, and Lab 4 cr
Biol 302, 302L. Anatomy and Physiology, and Lab 4 cr
Biol 303, 303L. Principles of Animal Physiology, and Lab 4 cr
Biol 324, 324L. Developmental Biology and Lab 4 cr
Biol g404, g404LMolecular Biology, and Lab 4 cr
Biol g411K Molecular Biology Laboratory Methods 3 cr
Biol g415, g415LMolecular Neurobiology, and Lab 5 cr
Biol g417 Organic Evolution 3 cr
Biol g433, g433LMicrobial Physiology, and Lab 4 cr
Biol g434, g434LMicrobial Diversity, and Lab 4 cr
Biol g443 Endocrinology 3 cr
Biol g444, g444LMolecular Biology, and Lab 4 cr
Biol g449, g449R. PHAR 949, 949R Human Physiology, and Recitation 4 cr
Biol g451, g451LMicrobiology, and Lab 4 cr
Biol g456, g456R. PHAR 956, 956R Human Physiology II, and Recitation 4 cr
Biol g461 Advanced Genetics 3 cr
Biol g463, g463LHuman Pathophysiology, and Lab 4 cr
Biol g473, g473LMicrobial Physiology, and Lab 4 cr
Biol g475 General Virology 3 cr
Biol g477 or g478Bacterial or Animal Virology Laboratory 1 cr
Biol g481 and/or g482 Independent Problems (max. 2 credits) 2 cr
Biol g488 Advanced Radiobiology 3 cr
CHEM 211, 213 Inorganic Chemistry, and Lab 4 cr
CHEM 311 and/or 312 Introduction to Research (max. 2 cr) 2 cr
CHEM 331, 334 Instrumental Analysis, and Lab 4 cr
CHEM 365, 366 Synthetic Methods, and Lab 4 cr
CHEM g407* Inorganic Chemistry II 2 cr
CHEM g433, g437Environmental Chemistry, and Lab 3 cr
CHEM g453* Modern Experimental Physical Chemistry** 3 cr
Pharmacy Courses

Biomedical and Pharmaceutical Science Courses

PSCI 205 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 301 Introduction to Pharmacology 3 credits. Overview of basic pharmacological principles and drug classes emphasizing organ systems and mechanisms of action. PREREQ: BIOL 102, CHEM 112, and CHEM 112L. F

PSCI 308 Drug Discovery 3 credits. Overview of the research in drug discovery process including drug screening and the development of targeted therapies. PREREQ: PSCI 301. F

PSCI 314 Basic and Applied Pharmacology for Dental Hygiene 2 credits. Basic pharmacology and therapeutic uses of selected drug groups. PREREQ: BIOL 301 and BIOL 302; Dental Hygiene major. S

PSCI 315 Pharmacology for Nursing 4 credits. The pharmacologic actions and therapeutic implications of the major classes of drugs. PREREQ: BIOL 301 and BIOL 302; admitted to Nursing, Paramedic, or Respiratory Therapy program. S

PSCI 318 Basic and Applied Pharmacology for Physical Therapists 2 credits. Introduction to the basic concepts of pharmacology. Discussion of pharmacologic theory of problems affecting the musculoskeletal and connective tissues, including pain management. PREREQ: Admitted to Physical Therapy program. S

PSCI 353 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. BIOL 102, CHEM 112, and CHEM 112L. S

PSCI 368 Introduction to Toxicology 3 credits. Review of environmental and clinical poisons with emphasis on mechanisms of toxicity, causes, detection and treatment. PREREQ: PSCI 301. F

PSCI 401 Drug Abuse 2 credits. A discussion of pharmacological and societal aspects of drugs of abuse. PREREQ: PSCI 301. S

PSCI 402 Immunopharmacology 2 credits. Examination of drugs affecting the immune system. PREREQ: PSCI 301. S

PSCI 403 Infectious Diseases and Natural Products 3 credits. Review of antimicrobial drugs including antibiotics, antifungal and anti-tuberculosis drugs. Review of pharmacology and medicinal chemistry of drugs derived from environmental sources. PREREQ: PSCI 301. S

PSCI 404 Pulmonary and Cardiac Pharmacology 3 credits. Review of the pulmonary and cardiovascular systems including major drug classes affecting these systems. PREREQ: PSCI 301. F

PSCI 405 Behavioral Pharmacology 2 credits. Review of drugs effecting behavioral processes including emotion, learning, memory, and cognition. PREREQ: PSCI 301. Permission of instructor. S

PSCI 406 Introduction to Endocrinology 2 credits. Review of the endocrine systems and drugs used for endocrine based disorders. PREREQ: PSCI 301. S

PSCI 407 Pharmacogenomics 2 credits. Review of current genetic approaches in the understanding of disease and the development of pharmacological agents to treat disease. PREREQ: PSCI 301. S

PSCI 408 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 301. F

PSCI 414 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 specific to women will be emphasized. PREREQ: Permission of instructor. F

PSCI 430 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 431 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 432 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 433 Physical Pharmaceutics 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 434 Pharmacokinetics 3 credits. Illustrates the principles of pharmacokinetics and dosing regimen design. PREREQ: Permission of instructor. F

PSCI 435 Drug Delivery Systems 3 credits. Illustrates principles, processes, and techniques applied to drug delivery systems, preparation, use and assessment of pharmaceutical dosage forms and emphasizes formulation design, dose regimens, and specific compounding techniques. PREREQ: Permission of instructor. S

PSCI 436 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

Pharmaceutical Science Courses

CHEM 481 and/or 482 Independent Problems (max) 2 cr

MATH 240 Linear Algebra 3 cr

MATH 275 Calculus III 4 cr

MATH 360 Differential Equations 3 cr

PSCI 205 Drugs in Society 2 cr

PSCI 301 Introduction to Pharmacology 3 cr

PSCI 308 Drug Discovery 3 cr

PSCI 353 Introduction to Methods in Pharmaceutical Sciences 2 cr

PSCI 368 Introduction to Toxicology 3 cr

PSCI 402 Immunopharmacology 2 cr

PSCI 403 Infectious Diseases and Natural Products 3 cr

PSCI 404 Pulmonary and Cardiac Pharmacology 3 cr

PSCI 407 Pharmacogenomics 2 cr

PSCI 408 Medicinal Chemistry 3 cr

PSCI 409 Cancer Biology 3 cr

PSCI 414 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 specific to women will be emphasized. PREREQ: Permission of instructor. F

PSCI 430 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 431 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 432 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 433 Physical Pharmaceutics 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 434 Pharmacokinetics 3 credits. Illustrates the principles of pharmacokinetics and dosing regimen design. PREREQ: Permission of instructor. F

PSCI 435 Drug Delivery Systems 3 credits. Illustrates principles, processes, and techniques applied to drug delivery systems, preparation, use and assessment of pharmaceutical dosage forms and emphasizes formulation design, dose regimens, and specific compounding techniques. PREREQ: Permission of instructor. S

PSCI 436 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 437 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 438 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. PREREQ: Permission of instructor. F, S

PSCI 439 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 440 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 441 Diabetes for Health Sciences 2 credits. Discussion of diabetes: types, development, monitoring and patient related issues. Topics include basic diabetes and patient applications. Discussions based on student interest and background. PREREQ: Permission of instructor. S

PSCI 455 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 457 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 462 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 301. S
PSCI 480 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 482 Special Topics in Pharmaceutical Sciences 1-3 credits. An examination of selected topics in the pharmaceutical sciences. PREREQ: Permission of instructor. F, S

PSCI 529 Clinical Pharmacokinetics 3 credits. The application of pharmacokinetic principles to the rational design of individualized drug dosage regimens. PREREQ: PSCI 425. F

PSCI 537 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. PREREQ: Enrolled in PHARM.D. program. S

PSCI 538 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. PREREQ: Enrolled in PHARM.D. program. S

PSCI 569 Pathophysiology 3 credits. The study of basic processes underlying diseases with an emphasis on gross functional disturbances. Students may not receive credit for both PSCI 569 and BIOL 463. PREREQ: B.S. in Pharmacy. F, S

PSCI 592 Special Topics in Pharmaceutical Sciences 1-4 credits. An examination of selected topics in pharmaceutical sciences. PREREQ: Enrolled in PHARM.D. program. D

Pharmacy Practice and Administrative Sciences Courses

PPRA 335 Smoking Cessation 1 credit. Knowledge and skills necessary to provide comprehensive tobacco cessation counseling to patients who use tobacco. D

PPRA 341 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 345 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 pharmacoeconomic considerations, among other parameters, will drive the selection of individual agent(s) within the selected drug class. D

PPRA 425 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 440 Pharmaceutical Economics 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 450 Externship in Pharmacy Practice 1 credit. 200 hours of practical experience in a pharmacy practice environment. Graded S/U. S

PPRA 491 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 507 Complementary and Natural Medicine 2 credits. Introduction to safety and efficacy of methods and products used in treating patients outside of modern medicine. PREREQ: Enrolled in the PHARM.D. program. S

PPRA 513 Marketing Management of the Community Pharmacy 2 credits. Principles of marketing management as applied to community pharmacy practice. S

PPRA 514 Institutional Pharmacy Practice 2 credits. The practice of institutional pharmacy with special emphasis on the practice of hospital pharmacy. PREREQ: PHAR 945 and PHAR 945L. S

PPRA 515 Financial Management of the Community Pharmacy 2 credits. Principles of financial management as applied to community pharmacy practice. PREREQ: PHAR 945 and PHAR 945L. S

PPRA 518 Clinical Research Design and Analysis 4 credits. The fundamentals of experimental design, implementation and data analysis pertinent to pharmaceutical clinical investigations. F, S

PPRA 530 Geriatric Pharmacy I 3 credits. Principles of effective pharmaceutical care of the elderly patient. PREREQ: Third professional year status. D

PPRA 531 Geriatric Pharmacy II 3 credits. This course is a continuation of PPRA 530, and includes advanced study of the principles of effective pharmaceutical care of the elderly patient. PREREQ: Third professional year status. S

PPRA 534 Pathophysiology and Therapeutics I 4 credits. This course presents drug therapies by disease state with emphasis placed on selection and monitoring of drug therapy, patient counseling and application of knowledge to patient situations. F, S

PPRA 535 Pathophysiology and Therapeutics II 4 credits. Provides knowledge of therapeutics and prepare for learning in a clinical setting. PREREQ: PPRA 534, F, S

PPRA 538 Drug Information and Literature Analysis 2 credits. Advanced course in retrieving, analyzing, and evaluating medical-related information from the literature. PREREQ: PPRA 518. F

PPRA 539 Quality Assurance and Cost Containment Strategies 1 credit. A study of the drug use process with special emphasis on methods whereby pharmacists can enhance patient care and reduce costs of care. F, S

PPRA 550 Physical Assessment 1 credit. An introduction to the practical applications of pharmacy including performing a basic physical examination and taking a medical history. F, S

PPRA 588 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. PREREQ: Enrolled in PHARM.D. program. F, S

Professional Pharmacy Courses

PHAR 901 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 902 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 901. S

PHAR 903 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 902. S

PHAR 905 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 906 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 907 Case Studies in Pharmacy II 2 credits. Application of principles in pharmaceutical sciences, pathophysiology and therapeutics to drug therapy issues. PREREQ: PHAR 906. S

PHAR 908 Case Studies in Pharmacy III 2 credits. Application of principles in pharmaceutical sciences, pathophysiology and therapeutics to drug therapy issues. PREREQ: PHAR 907. F

PHAR 910 First Year Recitation 0 credit. Scheduled time to attend professional seminars, course reviews and exams. May be repeated. COREQ: First professional year. D
PHAR 911 Introductory Practice Experience
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. Su

PHAR 912 Introductory 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 911. COREQ: first professional year. S

PHAR 913 Introductory 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 912. S

PHAR 914 Introductory 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 913. S

PHAR 920 Second Year Recitation 0 credit. Scheduled time to attend professional seminars, course reviews and exams. May be repeated. COREQ: Second Professional Year. D

PHAR 921 Biological Basis of Drug Actions I 3 credits. Basic concepts in pharmacology. PREREQ: First professional year. F

PHAR 921R Biological Basis of Drug Actions I Recitation 0 credits.

PHAR 922 Biological Basis of Drug Actions II 4 credits. Basic concepts in pharmacology. PREREQ: First professional year. S

PHAR 922R Biological Basis of Drug Actions II Recitation 0 credit.

PHAR 924 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 g432, BIOL g449, and PHAR 924R. F

PHAR 924R Physiochemical Basis of Drug Action Recitation 0 credit.

PHAR 926 Basic Pharmaceutics and Calculations 3 credits. Fundamentals of physical pharmacy, mathematics associated with drug dispensing and pharmacochemical principles applicable to the design of rational dosage regimens. PREREQ: PHAR 924. S

PHAR 927 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 926. F

PHAR 927L 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 927. S

PHAR 930 Third Year Recitation 0 credit. Scheduled time to attend professional seminars, course reviews and exams. May be repeated. COREQ: Third Professional Year. D

PHAR 941 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 941L. F

PHAR 941L Pharmacy Practice and Literature I Lab 0 credit.

PHAR 944 Social and Behavioral Medicine and Pharmaceutical Care with Lab 4 credits. Emphasizes cultural sensitivity, empathy, communication skills; and the social, behavioral and ethical influences on pharmacotherapy. PREREQ: Second professional year. COREQ: PHAR 944L. D

PHAR 944L Social and Behavioral Medicine and Pharmaceutical Care Lab 0 credits.

PHAR 945 Pharmacy Practice Management with Lab 4 credits. Principles of financial and human resource management as applied to pharmacy practice. PREREQ: ECON 201 or ECON 202, and third professional year. COREQ: PHAR 945L. F

PHAR 945L Pharmacy Practice Management Lab 0 credits. Application and experiences in financial and human resource management as applied to pharmacy practice. COREQ: PHAR 945. F

PHAR 948 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 949 Human Physiology I 4 credits. First of a two semester sequence. Physiology of the nervous, muscular, and circulatory systems. Cross-listed as BIOL g449. PREREQ: BIOL 101, CHEM 111, CHEM 111L, CHEM 112, and CHEM 112L. F

PHAR 949R Human Physiology I Recitation 0 credit. F

PHAR 951 Pharmacotherapy Lab 11 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 952 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 956 Human Physiology II 4 credits. Physiology of the respiratory, renal, gastrointestinal and endocrine systems. Includes studies of acid-base balance. Cross-listed as BIOL g456. PREREQ: BIOL g449 or equivalent. S

PHAR 956R Human Physiology II Recitation 0 credit. S

PHAR 961 Pharmacotherapy IV 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: Second professional year. D

PHAR 962 Pharmacotherapy II 3 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 963 Pharmacotherapy III 4 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 964 Pharmacotherapy IV 3 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 965 Pharmacotherapy V 3 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 966 Pharmacotherapy VI 3 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 967 Pharmacotherapy VII 3 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
Nontraditional Doctor of Pharmacy Courses

PDNT 905 Introduction to Clinical Problem Solving 1 credit. An integrated case study format emphasizing the development of quality assurance concepts, physical assessment skills, and critical thinking abilities related to the diagnosis, resolution and prevention of drug-related problems. PREREQ: Enrollment in the Nontraditional Pharm.D. program. F, S, Su

PDNT 918 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 and PPRA 518. F, S, Su

PDNT 938 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 and PPRA 518. F, S, Su

PDNT 961 Pharmacotherapy I 3 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 962 Pharmacotherapy II 3 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 963 Pharmacotherapy III 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 964 Pharmacotherapy IV 3 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 965 Pharmacotherapy V 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 966 Pharmacotherapy VI 3 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 967 Pharmacotherapy VII 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 968 Pharmacotherapy VIII 3 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 969 Pharmacotherapy IX 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 970 Pharmacotherapy X 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 971 Pharmacotherapy XI (Capstone with recitation) 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
College of Technology

Marilyn Davis, Dean
Deborah L. Thompson, 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. In this setting students may participate in a wide range of campus activities in addition to completing occupationally-focused programs of study. Programs of study include technical certificate programs, associate degree programs, bachelor’s degree programs, graduate programs, adult basic education, and special workforce training and development.

Students may gain leadership skills by participating in organizations such as the Associated Students of Idaho State University (ASISU), Delta Epsilon Chi, the Association of Information Technology Professionals (AITP), the Business Professionals Association (BPA), and Skills USA.

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. 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 Process

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 academic admission.

The following professional/technical standards were established by the Idaho State Board of Education and implemented at the beginning of the Fall 1997 semester.

A. Students who graduate from high school in 1997 or later must:

1. Verify graduation from an accredited high school by providing an official transcript that reflects the date of graduation, completion of the Professional-Technical Admission Standards (see below), and a minimum 2.0 GPA, and

2. Meet the minimum COMPASS levels or the equivalent ACT/SAT scores established by the program of choice.

B. Students who graduated from high school or received a GED prior to 1997 must:

1. Verify graduation from an accredited high school by providing an official transcript that reflects the date of graduation and a minimum 2.0 GPA, or verify an earned GED by providing an official certificate, and

2. Meet the minimum COMPASS levels or the equivalent ACT/SAT scores established by the program of choice.

C. Students who do not meet the above standards for admission and still want to pursue admission should contact the College of Technology’s Student Services Office at (208) 282-2622 to inquire about the appeal process. Students admitted through the appeal process must complete an admission agreement which requires attending five College of Technology Success Track and Retention System (STARS) workshops and/or enrollment in ACAD 102, First Year Seminar. To maintain enrollment, students admitted through the appeal process must also complete the initial 12 credits with at least a 2.0 cumulative GPA.

Professional-Technical Admission Standards

<table>
<thead>
<tr>
<th>Mathematics</th>
<th>4 credits*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algebra I, Algebra II, Geometry,</td>
<td></td>
</tr>
<tr>
<td>Analytical Geometry, Applied Math,</td>
<td></td>
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<tr>
<td>Applied Math, Trigonometry,</td>
<td></td>
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<tr>
<td>Discrete Math, Statistics, Calculus</td>
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</table>

<table>
<thead>
<tr>
<th>Natural Science</th>
<th>4 credits*</th>
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</thead>
<tbody>
<tr>
<td>Agricultural Science, Applied</td>
<td></td>
</tr>
<tr>
<td>Biology/Chemistry, Principles of</td>
<td></td>
</tr>
<tr>
<td>Technology (Applied Physics),</td>
<td></td>
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<tr>
<td>Anatomy, Biology, Chemistry, Earth</td>
<td></td>
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<tr>
<td>Science, Geology, Physiolology,</td>
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<tr>
<td>Physical Science, Physics,</td>
<td></td>
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<tr>
<td>Zoology, 500 level and above</td>
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<tr>
<td>Technology: A minimum grade of C</td>
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<tr>
<td>is required; 2 credits must be</td>
<td></td>
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<tr>
<td>lab.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>English</th>
<th>8 credits</th>
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</thead>
<tbody>
<tr>
<td>Composition, Literature, Applied</td>
<td></td>
</tr>
<tr>
<td>English in the Workplace</td>
<td></td>
</tr>
</tbody>
</table>

*Six (6) semesters recommended for students intending to pursue education beyond the Associate of Applied Science.

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 before returning 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. Registration materials will be mailed to accepted students approximately three weeks prior to fee payment.

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. 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, and submitting to interviews with program faculty.
2. If the petition is approved, and once the student has successfully completed one semester of coursework, the course(s) for which the student is granted credit for prior training, education, or work experience will be noted on the transcript. “Successful completion” is defined as receiving a minimum, cumulative 2.0 GPA without any “F” grades.
3. A recording fee will be required upon approval of the petition.

General Education Requirements
A student seeking an Associate of Applied Science (A.A.S.) degree must complete sixteen (16) credits of general education coursework. The sixteen hours must include:
1. Six (6) credit hours of communication selected from Goals 1 and 2.
2. Three (3) credit hours of mathematics/computation from Goal 3.
3. Three (3) credit hours of social science/human relations/interpersonal communications selected from Goals 6, 7, 9, 10A, 11, or 12.
4. Four (4) additional credits hours from any courses that meet the General Education requirements (some programs require specific General Education courses).

Progression
Progression into succeeding courses of study will require successful completion of (passing grades in) any courses listed as prerequisites for those desired courses. Many programs require students to earn specific grades in order to continue. Refer to program handbooks for these requirements.

Probation and Dismissal Policy
Please refer to the academic section of the Undergraduate catalog for a complete description of Idaho State University’s Scholastic Probation and Dismissal Rules. Probation and Dismissal policy includes summer sessions for all College of Technology professional-technical students.

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 on probation changes to another program, the probation status is transferred to the new program. If a student is on academic dismissal and changes programs, the dismissal status transfers to the new program. Please refer to the academic section of the Undergraduate catalog for a complete description of Idaho State University’s Scholastic Probation and Dismissal Rules.

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 student’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 18 months in length and follow specific approved curricula. For additional information, contact the Student Services Office at the College of Technology at (208) 282-2622.

Interdisciplinary Degrees
Bachelor of Applied Technology/Bachelor of Applied Science
The Bachelor of Applied Technology/Bachelor of Applied Science (B.A.T./B.A.S.) degree is an optional degree for students who have completed Associate of Applied Science (A.A.S.) degrees approved by the Idaho State Board of Education. All A.A.S. degree programs at Idaho State University are approved. If students want to coordinate the option of using the A.A.S. to apply toward a B.A.T. degree, they should consult with their A.A.S. program advisors about which general education courses may be used to fulfill requirements for both the A.A.S. and the B.A.T. degrees. More detailed information is provided in this catalog under General Information, and at www.isu.edu/ctech/student/services/BAT.shtml. The B.A.T. degree is administered through the Student Services Office in the College of Technology.

Bachelor of Science in Health Science
The Bachelor of Science in Health Science (B.S.H.S.) program 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 B.S.H.S. degree is administered through the Student Services Office in the College of Technology. See www.isu.edu/ctech/bshshealth.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 students’ 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.
### Academic Programs in the College of Technology

The following College of Technology programs offer academic degrees:

- Associate Degree Registered Nursing
- Bachelor of Applied Science
- Bachelor of Applied Technology
- Bachelor of Science in Health Science
- Emergency Management
- Fire Services Administration
- Geomatics Technology
- Human Resource Training and Development
- Paramedic Science
- Respiratory Therapy

### 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 Associate Dean of the College of Technology.

### Aircraft Maintenance Technology

(2½ to 4½ Semesters)

**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](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:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRM 101</td>
<td>Mathematics</td>
<td>3 cr</td>
</tr>
<tr>
<td>AIRM 102</td>
<td>Aircraft Drawing</td>
<td>1 cr</td>
</tr>
<tr>
<td>AIRM 103</td>
<td>Truss Structures</td>
<td>3 cr</td>
</tr>
<tr>
<td>AIRM 104</td>
<td>Materials and Processes</td>
<td>7 cr</td>
</tr>
<tr>
<td>AIRM 105</td>
<td>Sheetmetal Structure</td>
<td>6 cr</td>
</tr>
<tr>
<td>AIRM 107</td>
<td>Forms and Regulations</td>
<td>3 cr</td>
</tr>
<tr>
<td>AIRM 108</td>
<td>Basic Electricity</td>
<td>3 cr</td>
</tr>
<tr>
<td>AIRM 109</td>
<td>Fluid Systems</td>
<td>5 cr</td>
</tr>
<tr>
<td>AIRM 110</td>
<td>Landing Gear Systems</td>
<td>4 cr</td>
</tr>
<tr>
<td>AIRM 111</td>
<td>Utility Systems</td>
<td>3 cr</td>
</tr>
<tr>
<td>AIRM 112</td>
<td>Electrical Systems</td>
<td>5 cr</td>
</tr>
<tr>
<td>AIRM 120</td>
<td>Structural Welding</td>
<td>2 cr</td>
</tr>
</tbody>
</table>

**TOTAL:** 45 cr

#### Advanced Technical Certificate: Power Plant

**(4½ Semesters)**

**Required Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRM 101</td>
<td>Mathematics</td>
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</tr>
<tr>
<td>AIRM 102</td>
<td>Aircraft Drawing</td>
<td>1 cr</td>
</tr>
<tr>
<td>AIRM 103</td>
<td>Truss Structures</td>
<td>3 cr</td>
</tr>
<tr>
<td>AIRM 104</td>
<td>Materials and Processes</td>
<td>7 cr</td>
</tr>
<tr>
<td>AIRM 105</td>
<td>Sheetmetal Structure</td>
<td>6 cr</td>
</tr>
<tr>
<td>AIRM 107</td>
<td>Forms and Regulations</td>
<td>3 cr</td>
</tr>
<tr>
<td>AIRM 108</td>
<td>Basic Electricity</td>
<td>3 cr</td>
</tr>
<tr>
<td>AIRM 109</td>
<td>Fluid Systems</td>
<td>5 cr</td>
</tr>
<tr>
<td>AIRM 110</td>
<td>Landing Gear Systems</td>
<td>4 cr</td>
</tr>
<tr>
<td>AIRM 111</td>
<td>Utility Systems</td>
<td>3 cr</td>
</tr>
<tr>
<td>AIRM 112</td>
<td>Electrical Systems</td>
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<tr>
<td>AIRM 211</td>
<td>Basic Reciprocating Engines</td>
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</tr>
<tr>
<td>AIRM 222</td>
<td>Advanced Reciprocating Engines</td>
<td>2 cr</td>
</tr>
<tr>
<td>AIRM 223</td>
<td>Basic Turbine Engines</td>
<td>3 cr</td>
</tr>
<tr>
<td>AIRM 224</td>
<td>Advanced Turbine Engines</td>
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</tr>
<tr>
<td>AIRM 225</td>
<td>Engine Lubrication Systems</td>
<td>2 cr</td>
</tr>
<tr>
<td>AIRM 226</td>
<td>Induction and Exhaust Systems</td>
<td>2 cr</td>
</tr>
<tr>
<td>AIRM 227</td>
<td>Engine Fuel Systems</td>
<td>3 cr</td>
</tr>
<tr>
<td>AIRM 228</td>
<td>Ignition and Cooling Systems</td>
<td>5 cr</td>
</tr>
<tr>
<td>AIRM 229</td>
<td>Engine Electrical and Instrument Systems</td>
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</tr>
<tr>
<td>AIRM 230</td>
<td>Engine Propellers</td>
<td>4 cr</td>
</tr>
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**TOTAL:** 75 cr

#### Associate of Applied Science Degree: Airframe and Powerplant

**(5½ Semesters)**

**Required Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIRM 101</td>
<td>Mathematics</td>
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<tr>
<td>AIRM 102</td>
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<tr>
<td>AIRM 103</td>
<td>Truss Structures</td>
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<tr>
<td>AIRM 104</td>
<td>Materials and Processes</td>
<td>7 cr</td>
</tr>
<tr>
<td>AIRM 105</td>
<td>Sheetmetal Structure</td>
<td>6 cr</td>
</tr>
<tr>
<td>AIRM 107</td>
<td>Forms and Regulations</td>
<td>3 cr</td>
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<tr>
<td>AIRM 108</td>
<td>Basic Electricity</td>
<td>3 cr</td>
</tr>
<tr>
<td>AIRM 109</td>
<td>Fluid Systems</td>
<td>5 cr</td>
</tr>
<tr>
<td>AIRM 110</td>
<td>Landing Gear Systems</td>
<td>4 cr</td>
</tr>
<tr>
<td>AIRM 111</td>
<td>Utility Systems</td>
<td>3 cr</td>
</tr>
<tr>
<td>AIRM 112</td>
<td>Electrical Systems</td>
<td>5 cr</td>
</tr>
<tr>
<td>AIRM 120</td>
<td>Structural Welding</td>
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**TOTAL:** 91 cr

#### General Education Requirements:

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
<td>ENGL 101</td>
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<td>3 cr</td>
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<tr>
<td>Goal 2</td>
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<td>3 cr</td>
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<tr>
<td>Goal 3</td>
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<tr>
<td>Goals 6, 7, 9, 10A, 11 or 12</td>
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<td>3 cr</td>
</tr>
<tr>
<td>Goal 4-12</td>
<td></td>
<td>4 cr</td>
</tr>
</tbody>
</table>

**TOTAL:** 9 cr

### Aircraft Maintenance Technology

**AIRM Courses**

- **AIRM 101 Mathematics** 3 credits. Mathematical theory pertaining to gear ratios, areas, power formulas, bend allowances, and weight and balances on aircraft. F
- **AIRM 102 Aircraft Drawing** 1 credit. Theory and lab practice in making, reading, and using drawings and blueprints on aircraft. S
- **AIRM 103 Truss Structures** 3 credits. Theory and lab practice in gas welding; rebuilding and repairing wooden structures, and fabric repair and recovering techniques. F
- **AIRM 104 Materials and Processes** 7 credits. Theory and lab practice covering airframe; ground operation; assembly and rigging; hardware; care, properties, and uses of various materials; aircraft finishes and the various methods of finish application. F
- **AIRM 105 Sheetmetal Structures** 6 credits. Theory and lab practice in maintenance and repair of metal aircraft. S
- **AIRM 107 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 108 Basic Electricity** 3 credits. Theory and lab practice in principles and uses of elec-
tricity in the various circuits and controls of the aircraft. S

AIRM 109 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 be able to troubleshoot the systems. S

AIRM 110 Landing Gear Systems 4 credits. Theory and lab practice in operation, maintenance, and repair of landing gear systems of the aircraft. S

AIRM 111 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. S

AIRM 112 Electrical Systems 5 credits. Theory and lab practice in operation, maintenance, and repair of electrical systems in aircraft. S

AIRM 120 Structural Welding 2 credits. Theory and lab practice in gas welding of aircraft structural components. F

AIRM 221 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 222 Advanced Reciprocating Engines 2 credits. Repair and overhaul of reciprocating engines, installation and test. F

AIRM 223 Basic Turbine Engines 3 credits. Design, construction, and operation of gas turbine and turbo-prop engines. S

AIRM 224 Advanced Turbine Engines 2 credits. Repair and overhaul of turbine engines. S

AIRM 225 Engine Lubrication Systems 2 credits. Design and operation of oil system; its repair and installation. S

AIRM 226 Induction and Exhaust Systems 2 credits. Design and operation of air intake, exhaust on reciprocating and jet engines. F

AIRM 227 Engine Fuel Systems 3 credits. Design and operation of carburetor, fuel injection, and hydromechanical fuel systems on reciprocating and jet engines. F

AIRM 228 Ignition and Cooling Systems 5 credits. Design, operation, and overhaul of magneto ignition and capacitor discharge ignition, and cooling systems. F

AIRM 229 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 230 Engine Propellers 4 credits. Design, operation, overhaul, and installation of propellers and components. S

AIRM 298 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

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**Associate Degree Registered Nurse Program**

Director and Professor: Smith  
Assistant Professor: Pearce  
Instructor: Knighton

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 Kasiska College of Health Professions is available for graduates.

This program will provide students with the needed 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 101 and 102; PSYC 101; NTD 239 or 340; BIOL 221 and 221L or equivalent, 3 credits from Goal 3 (MATH 153 preferred); COMM 101; and BIOL 301, 301L, 302, and 302L. 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)

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**Associate of Science Degree: Nursing**

4% 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 creates eligibility for the nurse to be licensed to practice as a Registered Nurse in Idaho and to be eligible to apply for licensure in other states. 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
BIOL 221,221L Introductory Microbiology, and Lab 4 cr
BIOL 301,301L Anatomy and Physiology, and Lab (Goals 4 and 5) 4 cr
COMM 101 Principles of Speech (Goal 2) 3 cr
ENGL 101 English Composition 3 cr
ENGL 102 Critical Reading and Writing 3 cr (Goal 1)
NTRD 239 Nutrition 3 cr
OR
NTRD 340 Nutrition 3 cr
ENGL 102 Critical Reading and Writing 3 cr (Goal 1)
COMM 101 Principles of Speech (Goal 2) 3 cr
NTRD 239 Nutrition 3 cr

Day Program-Specific Courses
One of Goals 9, 10A or 10B* (minimum) 3 cr
Two of Goals 6, 7, 8 6 cr
One of Goals 9, 10A or 10B* (minimum) 3 cr

Program-Specific Courses
ADRN 210 Nursing Transition 2 cr
ADRN 211 Mental Health Nursing 3 cr
ADRN 212 Clinical Foundations of Nursing III 2 cr
ADRN 220,220L Health Assessment, and Lab 3 cr
ADRN 230 Medical and Surgical Nursing III 3 cr
ADRN 231 Clinical Foundations of Nursing V 3 cr
ADRN 232 Family Nursing 3 cr
ADRN 233 Medical and Surgical Nursing III 3 cr
ADRN 245 Clinical Foundations of Nursing V 3 cr
ADRN 211 Mental Health Nursing 3 cr
ADRN 220,220L Health Assessment, and Lab 3 cr
ADRN 230 Medical and Surgical Nursing III 3 cr
ADRN 231 Clinical Foundations of Nursing V 3 cr
ADRN 232 Family Nursing 3 cr
ADRN 245 Clinical Foundations of Nursing V 3 cr

ADRN Courses
ADRN 210 Nursing Transition 2 credits. Professional skills needed in the transition of roles from LPN to RN are addressed. The three roles of the professional nurse and evidence-based decision-making are stressed. PREREQ: Admission to program. F
ADRN 211 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. F
ADRN 212 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 210, ADRN 211 and ADRN 220. F
ADRN 220 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: Admission to program. COREQ: ADRN 220L. F
ADRN 220L Health Assessment Lab 1 credit. Practical experience in health assessment for all ages; interpretation of clinical data in simulated situations; planning and prioritizing care based on clinical findings. COREQ: ADRN 220. F
ADRN 230 Medical and Surgical Nursing III 3 credits. Clinical experiences for 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 212. COREQ: ADRN 231 and ADRN 232. S
ADRN 231 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 212. COREQ: ADRN 230. S
ADRN 232 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. COREQ: ADRN 231. S
ADRN 233 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 230. COREQ: ADRN 245. S
ADRN 245 Clinical Foundations of Nursing V 3 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 231. COREQ: ADRN 233. S
ADRN 298 Independent Study 1-5 credits. Designed to address specific learning needs of individuals, this course enables students to enhance nursing knowledge and skills. PREREQ: Permission of instructor and program director. D

Progression
The student is required to earn a grade of “C” or better in all ADRN courses, and is required to maintain a GPA of 2.0 or better in order to remain in the program. All non-nursing courses must be completed prior to the start of the final (summer) semester.

Suggested Course Sequence
Prior to program acceptance:
Options exist for transfer credit or testing. Please consult with student services at (208) 282-2622.

Fall Semester (Goal 2)
BIOL 221 Introductory Microbiology, and Lab 4 cr
BIOL 301 Anatomy and Physiology, and Lab (Goals 4 and 5) 4 cr
COMM 101 Principles of Speech (Goal 2) 3 cr
ENGL 101 English Composition 3 cr
ENGL 102 Critical Reading and Writing 3 cr (Goal 1)
NTRD 239 Nutrition 3 cr
OR
NTRD 340 Nutrition 3 cr
Goal 3 (MATH 153 preferred) 3 cr

Spring Semester (Goal 1)
BIOL 302 Anatomy and Physiology, and Lab 4 cr
ENGL 102 Critical Reading and Writing 3 cr
NTRD 340 Nutrition 3 cr
OR
For Health Professionals (preferred) 3 cr
Goal 3 (MATH 153 preferred) 3 cr
One of Goals 9, 10A, or 10B* (minimum) 3 cr
*(if 10B is completed, 8 cr will be required)
Total for Spring Semester: 16 cr

After acceptance into program:

Fall Semester 3 (Fall)
ADRN 210 Nursing Transition 2 cr
ADRN 211 Mental Health Nursing 3 cr
ADRN 212 Clinical Foundations of Nursing III 2 cr
ADRN 220,220L Health Assessment, and Lab 3 cr
Goal 11 3 cr
Total for Fall Semester: 13 cr

Spring Semester 4 (Spring)
ADRN 230 Medical and Surgical Nursing III 3 cr
ADRN 231 Clinical Foundations of Nursing V 3 cr
ADRN 232 Family Nursing 3 cr
Two of Goals 6, 7, 8 6 cr
Total for Spring Semester: 16 cr

Summer Semester
ADRN 233 Medical and Surgical Nursing IV 3 cr
ADRN 245 Clinical Foundations of Nursing V 3 cr
Total for Summer Semester: 6 cr

ADRN Courses
ADRN 210 Nursing Transition 2 credits. Professional skills needed in the transition of roles from LPN to RN are addressed. The three roles of the professional nurse and evidence-based decision-making are stressed. PREREQ: Admission to program. F
ADRN 211 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. F
ADRN 212 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 210, ADRN 211 and ADRN 220. F
ADRN 220 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: Admission to program. COREQ: ADRN 220L. F
ADRN 220L Health Assessment Lab 1 credit. Practical experience in health assessment for all ages; interpretation of clinical data in simulated situations; planning and prioritizing care based on clinical findings. COREQ: ADRN 220. F
ADRN 230 Medical and Surgical Nursing III 3 credits. Clinical experiences for 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 212. COREQ: ADRN 231 and ADRN 232. S
ADRN 231 Clinical Foundations of Nursing IV 4 credits. Clinical experiences for nursing care

Automotive Collision Repair and Refinishing
(2½ to 4 Semesters)
Program Coordinator and Senior Instructor: Beamis
Master Instructor: Butler

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.

This program requires students to achieve certain grades in order to advance each
Technical Certificate: Automotive Collision Repair

(2½ Semesters)

Required Courses:
- ACRR 146 Introduction to Collision and Refinishing 8 cr
- ACRR 147 Minor Collision Repair and Refinishing 8 cr
- ACRR 210 Advanced Collision Repair I 8 cr
- ACRR 211 Advanced Collision Repair II 8 cr
- ACRR 212 Advanced Collision Repair III 8 cr

TOTAL: 40 cr

Technical Certificate: Automotive Refinishing

(2½ Semesters)

Required Courses:
- ACRR 146 Introduction to Collision and Refinishing 8 cr
- ACRR 147 Minor Collision Repair and Refinishing 8 cr
- ACRR 160 Advanced Refinishing I 8 cr
- ACRR 161 Advanced Refinishing II 8 cr
- ACRR 162 Advanced Refinishing III 8 cr

TOTAL: 40 cr

Advanced Technical Certificate: Automotive Repair and Refinishing

(4 Semesters)

Required Courses:
- ACRR 146 Introduction to Collision and Refinishing 8 cr
- ACRR 147 Minor Collision Repair and Refinishing 8 cr
- ACRR 160 Advanced Refinishing I 8 cr
- ACRR 161 Advanced Refinishing II 8 cr
- ACRR 162 Advanced Refinishing III 8 cr
- ACRR 252 Cooperative Work Experience 8 cr
- ACRR 252 Internship 8 cr

TOTAL: 80 cr

ACRR Courses

Students must have (or have ordered) tools necessary for Automotive Collision Repair and Refinishing prior to enrolling in ACRR 146.

ACRR 146 Introduction to Automotive Collision Repair and Refinishing. 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

ACRR 147 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 146. F, S, Su

ACRR 160 Advanced Refinishing II 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. F, S, Su

ACRR 161 Advanced Refinishing III 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 160. F, S

ACRR 162 Advanced Refinishing IV 8 credits. Tri-coating, striping, and variation of painting applications. Troubleshooting and corrective actions for problems encountered when painting. PREREQ: ACRR 161. F, S

ACRR 210 Advanced Collision Repair 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 161, ACRR 146, and ACRR 147 or Tech Prep articulation. F, S

ACRR 211 Advanced Collision Repair II 8 credits. Frame and unibody repair and alignment. Steering and alignment systems diagnosis and repair. Sectioning, sheet molded compounds, fiberglass, and plastic repair. PREREQ: ACRR 210. F, S

ACRR 212 Advanced Collision Repair III 8 credits. Automotive electrical circuitry, window and water leak diagnosis, air bags, and seatbelts. PREREQ: ACRR 210. F, S

ACCR 252 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. D

ACCR 298 Special Topics 1-8 credits. Designed to meet specific needs of the student through individual work under faculty guidance. PREREQ: Permission of instructor. PREREQ: Permission of instructor. D

Automotive Technology

(3 to 4 Semesters)

Coordinator and Instructor: Gunter
Instructors: Fisher, 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.
Advanced Technical Certificate: Automotive Technology
(3 Semesters)
Required Courses:

AUTM 100 Introduction to Automotive Technology 1 cr
AUTM 110 Vehicle Controls I 4 cr
AUTM 111 Vehicle Controls II 4 cr
AUTM 112 Power Trains I 3 cr
AUTM 113 Power Trains II 5 cr
AUTM 114 Automotive Engines I 3 cr
AUTM 115 Automotive Engines II 5 cr
AUTM 116 Automotive Electrical I 4 cr
AUTM 117 Automotive Electrical II 4 cr
AUTM 118 Live Work I 8 cr
AUTM 119 Live Work II 8 cr
AUTM 201 Advanced Electrical Systems 8 cr

TOTAL: 73 cr

Associate of Applied Science Degree: Automotive Technology
(4 Semesters)
Required Courses:

AUTM 100 Introduction to Automotive Technology 1 cr
AUTM 110 Vehicle Controls I 4 cr
AUTM 111 Vehicle Controls II 4 cr
AUTM 112 Power Trains I 3 cr
AUTM 113 Power Trains II 5 cr
AUTM 114 Automotive Engines I 3 cr
AUTM 115 Automotive Engines II 5 cr
AUTM 116 Automotive Electrical I 4 cr
AUTM 117 Automotive Electrical II 4 cr
AUTM 118 Live Work I 8 cr
AUTM 119 Live Work II 8 cr
AUTM 201 Advanced Electrical Systems 8 cr

TOTAL: 73 cr

GENERAL EDUCATION REQUIREMENTS:

ENGL 101 English Composition 3 cr
Goal 2 3 cr
Goal 3 3 cr
Goal 6, 7, 9, 10A, 11 or 12 3 cr
Goals 3-12 6 cr (minimum)
TOTAL: 73 cr

AUTM Courses

AUTM 111 Vehicle Controls II 4 credits. Brakes (drum and disk, power and manual), 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. D

AUTM 112 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. D

AUTM 113 Power Trains II 5 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. D

AUTM 114 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. D

AUTM 115 Automotive Engines II 5 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. D

AUTM 116 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. D

AUTM 117 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. D

AUTM 118 Live Work I 8 credits. Work on customer-owned, current, and late model vehicles in a shop environment. PREREQ: AUTM 116, D

AUTM 119 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 118, D

AUTM 198 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 201 Advanced Electrical Systems 8 credits. Multiplexing communication protocols, lab scoping senders, controls, actuators, pumps, and motors. Use electronic chassis controls to diagnose vehicle traction and stability control, emission control systems, electronic shift, and immobilizer systems; conduct drivability tests on a chassis dynamometer, and use hand held diagnostic tools. Su

Building Construction Technology
(4 Semesters)
Program Coordinator and Instructor: Callaghan
Instructor: Maag

One Advanced Technical Certificate, one Associate of Applied Science Degree and one Bachelor of Applied Science Degree are available to the student.

Objective: To prepare graduates for careers in the building construction industry with emphasis on framing, concrete, tile, finish work, cabinets, estimating, blueprint reading, and safety within a curriculum that transfers, directing students towards successful attainment of journeyman status.

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/buildingconstruction.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: Building Construction
(4 Semesters)
BCT Courses

BCT 110 Hand Tools, Power Hand Tools, and Power Tools credits. Students will learn to properly use and maintain the tools used in the construction trade. F

BCT 112 Construction Blueprint Reading 3 credits. Students will learn to read a set of blueprints and list materials. F

BCT 115 Introduction to Masonry 2 credits. A review of masonry principles and how different materials are used in the building industry. Emphasis will be placed on the selection and use of various masonry products along with practical applications for use. Students will use cement block, brick, pavers, and other masonry products in simulated building applications. F

BCT 116 Floor and Wall Construction 4 credits. Students will learn the different parts of a frame wall and roof; the methods for layout, the methods of assembly and erection, and how to estimate the materials and labor needed to complete the building of walls and roof framing. S

BCT 117 Introduction to Stairway Construction 2 credits. The student will build different stairway layouts and find solutions to stairway problems. S

BCT 118 Roof Framing Construction 4 credits. Students will frame up a gable roof, a gable roof with a dormer, a hip roof, and a gambrel roof, and will lay out a truss. S

BCT 121 Basic Cabinetmaking 5 credits. Identify proper wood or plywood used in cabinetmaking; identify and cut a variety of woodworking joints; and layout, cut and assemble materials for case construction. F

BCT 122 Construction Blueprint Reading II 2 credits. An advanced blueprint reading course that utilizes residential drawings and light commercial plans. Emphasis placed on materials, symbols, specifications, framing systems, floors, plumbing, HVAC, and electrical. PREREQ: BCT 112. S

BCT 160 Construction Mathematics 2 credits. Students will learn the use of various measuring systems of construction and emphasis will be placed on the math used in the building construction trade. F

BCT 161 Planning and Estimating 2 credits. In this class the student will learn how to estimate the amount of material it will take to build a house and plan the sequence of construction. F

BCT 201 Concrete Forming, Pouring and Finishing 3 credits. An introduction to concrete foundations used in residential structures. Students will learn methods to pour, reinforce, and estimate concrete volume. Modern architectural design is increasingly using concrete footings and foundations. Students will learn the use of form, ties, and clamps to pour footings and foundations. F

BCT 202 Floor and Sills 2 credits. Students will learn the proper techniques and methods to frame a wood structure. Components of floor and sill framing will be taught as well as materials estimating. F

BCT 203 Interior Wall and Ceiling 2 credits. Students will be taught the vertical and horizontal support members of a structure and their purpose as the basis for further construction. Students will be able to assemble all the framing members of a structure. F

BCT 204 Roof Rafters and Sheathing 3 credits. Various roof framing members and different types of roofs will be identified. Students will learn about different types of roof openings and sheathing. F

BCT 205 Stairways and Special Framing 3 credits. Stairways and other special framing situations will be covered. The types and parts of staircases will be identified. Methods used for measuring rise and run, and materials estimating will be included. F

BCT 206 Field Construction Methods 2 credits. The purpose of this course is to train and provide students with practical experience in powder actuated tools, fastening methods, engineered lumber systems, safe rigging practices, building and electrical codes, and construction safety. Students will apply skills and knowledge to the construction of a modern home. F

BCT 210 Cornices and Gable Ends 2 credits. Types and styles of cornices and sills will be identified including the proper construction of each and the appropriate methods for finishing and covering. The student will learn measuring and estimating for purchase of materials. S

BCT 211 Roofing 2 credits. Roof covering is becoming a specialized area of construction. Types of roofs, appropriate roofing materials and tools needed to complete roof application will be taught. Students will be able to select and apply roofing to a framed structure. S

BCT 212 Exterior Walls and Trim 2 credits. Different types of water and wind wall protection will be covered and installation of siding to a framed structure will be taught. Students will also learn joint finishing and trim techniques to complete exterior walls. F

BCT 213 Exterior Doors & Windows 2 credits. Students will learn types of exterior doors and provide complete installation procedures to include door, frame, hardware, threshold, and weather-stripping. S

BCT 214 Insulation 1 credit. Energy conservation as it relates to types and uses for insulation in a residential structure will be discussed. Students will learn classification, types, and how to figure quantities needed on a project. F

BCT 215 Drywall 2 credits. Drywall sizes, types, and uses of drywall will be covered. Students will learn techniques to install, finish drywall joints and depressions, and learn types of drywall finishes that may be applied. Measuring and estimating will also be taught. S

BCT 216 Interior Doors and Trim 3 credits. Students will learn the types and techniques for installing interior doors. Hardware, moldings, and trim will be taught. The proper installation relating to door frame, wall size and type of room will be covered. S

BCT 217 Flooring 1 credit. Various types of floor covering, underlayment, and wood flooring will be taught. Estimating materials for the size of area to be covered will be discussed. S

BCT 218 Steel Stud Framing 2 credits. The students will demonstrate the correct and safe use of power tools and describe the various uses of steel studs.
BCT 298 Special Topics 1-16 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. PRE-REQ: Permission of instructor.

Business Information

2 to 5 Semester Program Options
Assistant Professors: Enos, Spinner
Master Instructor: Warren

Four Certificate options, an Advanced Technical Certificate, 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/officetechnology.shtml.

Business Information students perform a wide variety of administrative and office management skills used in business. They may work in medical, legal, accounting, or other administrative office settings.

Accounting clerks perform a combination of calculating, posting, and verifying duties involving financial data. They use computers and work with database or spreadsheet programs to maintain accounting records.

Administrative office assistants use skills in management functions, organization, and technology, and are frequently responsible for planning travel, meetings, and other executive support duties. Employment opportunities are available in offices both large and small including banks, insurance, education, real estate, and government.

Medical office personnel in a medical office environment may schedule appointments, greet patients, process insurance claims, transcribe medical reports, plan medical meetings and operate business equipment. Work opportunities are available in hospitals, clinics, public health agencies, government agencies, insurance companies, or similar environments.

Legal office assistants typically complete tasks in a legal setting, which may include court/conference reporting responsibilities that range from scheduling trials and recording court business to legal work for an individual attorney.

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.

Technical Certificate: Business Information Technology

(1½ to 2 semesters)

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>BI 110</td>
<td>Introduction to Business</td>
<td>2 cr</td>
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<tr>
<td>BI 112</td>
<td>Voice Recognition</td>
<td>1 cr</td>
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<tr>
<td>BI 121</td>
<td>Digital Input and Transcription</td>
<td>3 cr</td>
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<tr>
<td>BI 144</td>
<td>Document Processing</td>
<td>3 cr</td>
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<tr>
<td>BI 170</td>
<td>Introduction to Computers</td>
<td>3 cr</td>
</tr>
<tr>
<td>BI 173</td>
<td>Spreadsheets</td>
<td>3 cr</td>
</tr>
<tr>
<td>BI 174</td>
<td>Records and Database</td>
<td>3 cr</td>
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<tr>
<td>TGE 158</td>
<td>Employment Strategies</td>
<td>2 cr</td>
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TOTAL: 20 cr

Technical Certificate: Accounting Technology

(2½ Semesters)

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<tr>
<td>BI 118</td>
<td>Business Communications I</td>
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<td>Business Communications II</td>
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<td>BI 120</td>
<td>Concepts of Accounting</td>
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<tr>
<td>BI 123</td>
<td>Business Mathematics</td>
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<td>BI 140</td>
<td>Keyboard Skill Development I</td>
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<td>BI 144</td>
<td>Document Processing</td>
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<td>BI 147</td>
<td>Accounting Applications</td>
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<td>BI 148</td>
<td>Payroll Procedures</td>
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<td>BI 170</td>
<td>Introduction to Computers</td>
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<td>BI 171</td>
<td>Computerized Accounting</td>
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<td>BI 173</td>
<td>Spreadsheets</td>
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<tr>
<td>BI 174</td>
<td>Records and Database</td>
<td>3 cr</td>
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TOTAL: 37 cr

Technical Certificate: Administrative Technology

3 Semesters

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<td>BI 144</td>
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<td>BI 145</td>
<td>Advanced Document Processing</td>
<td>3 cr</td>
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<tr>
<td>BI 154</td>
<td>Administrative Management</td>
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<td>BI 170</td>
<td>Introduction to Computers</td>
<td>3 cr</td>
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<tr>
<td>BI 171</td>
<td>Computerized Accounting</td>
<td>3 cr</td>
</tr>
<tr>
<td>BI 172</td>
<td>Business Information</td>
<td>3 cr</td>
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<tr>
<td>BI 173</td>
<td>Integration and Presentation</td>
<td>3 cr</td>
</tr>
<tr>
<td>BI 174</td>
<td>Spreadsheets</td>
<td>3 cr</td>
</tr>
<tr>
<td>BI 177</td>
<td>Records and Database</td>
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TOTAL: 43 cr

Technical Certificate: Legal Office Technology

(2½ to 3 Semesters)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</tr>
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<tbody>
<tr>
<td>BI 118</td>
<td>Business Communications I</td>
<td>3 cr</td>
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<tr>
<td>BI 119</td>
<td>Business Communications II</td>
<td>3 cr</td>
</tr>
<tr>
<td>BI 120</td>
<td>Concepts of Accounting</td>
<td>3 cr</td>
</tr>
<tr>
<td>BI 121</td>
<td>Digital Input and Transcription</td>
<td>3 cr</td>
</tr>
<tr>
<td>BI 123</td>
<td>Business Mathematics</td>
<td>3 cr</td>
</tr>
<tr>
<td>BI 140</td>
<td>Keyboard Skill Development I</td>
<td>3 cr</td>
</tr>
<tr>
<td>BI 144</td>
<td>Document Processing</td>
<td>3 cr</td>
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<tr>
<td>BI 145</td>
<td>Advanced Document Processing</td>
<td>3 cr</td>
</tr>
<tr>
<td>BI 154</td>
<td>Administrative Management</td>
<td>3 cr</td>
</tr>
<tr>
<td>BI 170</td>
<td>Introduction to Computers</td>
<td>3 cr</td>
</tr>
<tr>
<td>BI 171</td>
<td>Computerized Accounting</td>
<td>3 cr</td>
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<tr>
<td>BI 173</td>
<td>Spreadsheets</td>
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<td>BI 174</td>
<td>Records and Database</td>
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<tr>
<td>BI 257</td>
<td>Legal Terminology and Office Procedures</td>
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<td>BI 258</td>
<td>Legal Document Processing</td>
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<td>BI 259</td>
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<td>BI 260</td>
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TOTAL: 40 cr

Advanced Technical Certificate: Medical Office Technology

(3 Semesters)

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<tr>
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<tr>
<td>BI 119</td>
<td>Business Communications II</td>
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<tr>
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<td>Concepts of Accounting</td>
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<td>BI 140</td>
<td>Keyboard Skill Development I</td>
<td>3 cr</td>
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<tr>
<td>BI 141</td>
<td>Keyboarding</td>
<td>1 cr</td>
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<tr>
<td>BI 144</td>
<td>Document Processing</td>
<td>3 cr</td>
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<tr>
<td>BI 145</td>
<td>Advanced Document Processing</td>
<td>3 cr</td>
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<tr>
<td>BI 170</td>
<td>Introduction to Computers</td>
<td>3 cr</td>
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<tr>
<td>HIT 208</td>
<td>ICD 9-CM Coding</td>
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<tr>
<td>HIT 209</td>
<td>CPT Coding</td>
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<td>Course Code</td>
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<tr>
<td>BI 110</td>
<td>Introduction to Business Information</td>
<td>2 cr</td>
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<tr>
<td>BI 112</td>
<td>Voice Recognition</td>
<td>1 cr</td>
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<tr>
<td>BI 115</td>
<td>Practicum</td>
<td>1-3 cr</td>
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<tr>
<td>BI 116</td>
<td>Professional Leadership Development 1 credit</td>
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<td>Business Communications II</td>
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<tr>
<td>BI 120</td>
<td>Concepts of Accounting</td>
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<tr>
<td>BI 121</td>
<td>Digital Input and Transcription</td>
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<td>BI 123</td>
<td>Business Mathematics</td>
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<td>BI 128</td>
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<td>BI 129</td>
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<td>BI 130</td>
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<td>BI 131</td>
<td>Records and Database</td>
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<td>BI 132</td>
<td>Management</td>
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<td>College Algebra</td>
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<td>BI 136</td>
<td>Principles of Accounting I</td>
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<td>BI 137</td>
<td>Office Procedures</td>
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<td>BI 138</td>
<td>Legal Terminology and Procedures</td>
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<td>BI 140</td>
<td>Document Processing</td>
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<tr>
<td>BI 141</td>
<td>Management</td>
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<tr>
<td>BI 142</td>
<td>Records and Database</td>
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<tr>
<td>BI 143</td>
<td>Essentials of Management</td>
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<tr>
<td>BI 144</td>
<td>Introduction to Paralegal Studies</td>
<td>3 cr</td>
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<tr>
<td>BI 145</td>
<td>Research and Analysis</td>
<td>3 cr</td>
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<tr>
<td>BI 146</td>
<td>Fundamentals of Legal Research and Analysis</td>
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**General Education Requirements: 16 cr**

<table>
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<tr>
<th>Course Code</th>
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<td>ENGL 101</td>
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<td>Goal 1</td>
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<tr>
<td>Goal 2</td>
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<tr>
<td>Goal 3</td>
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<td>Goal 13</td>
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<tr>
<td>Goal 14</td>
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</tr>
<tr>
<td>Goal 15</td>
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<td>Goal 18</td>
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<td>Goal 19</td>
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<td>Goal 21</td>
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<td>3 cr</td>
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<td>Goal 22</td>
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<td>Goal 28</td>
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<td>Goal 29</td>
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<tr>
<td>Goal 30</td>
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</table>

**Associate of Applied Science Degree: Accounting Technology**

(4 Semesters)

**Required Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BI 110</td>
<td>Introduction to Business Information</td>
<td>2 cr</td>
</tr>
<tr>
<td>BI 112</td>
<td>Voice Recognition</td>
<td>1 cr</td>
</tr>
</tbody>
</table>

**General Education Requirements:**

- ENGL 101: English Composition 3 cr
- Goal 1: English Composition 3 cr
- Goal 2: English Composition 3 cr
- Goal 3: English Composition 3 cr
- Goal 4: English Composition 3 cr
- Goal 5: English Composition 3 cr
- Goal 6: English Composition 3 cr
- Goal 7: English Composition 3 cr
- Goal 8: English Composition 3 cr
- Goal 9: English Composition 3 cr
- Goal 10: English Composition 3 cr
- Goal 11: English Composition 3 cr
- Goal 12: English Composition 3 cr
- Goal 13: English Composition 3 cr
- Goal 14: English Composition 3 cr
- Goal 15: English Composition 3 cr
- Goal 16: English Composition 3 cr
- Goal 17: English Composition 3 cr
- Goal 18: English Composition 3 cr
- Goal 19: English Composition 3 cr
- Goal 20: English Composition 3 cr
- Goal 21: English Composition 3 cr
- Goal 22: English Composition 3 cr
- Goal 23: English Composition 3 cr
- Goal 24: English Composition 3 cr
- Goal 25: English Composition 3 cr
- Goal 26: English Composition 3 cr
- Goal 27: English Composition 3 cr
- Goal 28: English Composition 3 cr
- Goal 29: English Composition 3 cr
- Goal 30: English Composition 3 cr

**BI Courses:**

BI 110 Introduction to Business Information 2 credits. This course is designed to introduce general organizational and administrative office skills, address professional dress, etiquette, ethics, and human relations skills in the workplace, and explore careers in the field of administrative information technology. F, S

BI 112 Voice Recognition 1 credit. Introduction to use of voice recognition technology. D

BI 115 Practicum 1-3 credits. On-the-job experience through internships, cooperative training, externships, workstudy, or other on-site work experience modalities. Graded P/NP. PREREQ: Permission of instructor. F, S, Su

BI 116 Professional Leadership Development 1 credit. Integrates the Business Professionals of America (BPA) student organization into the Business Information curriculum. Emphasis on developing leadership professionalism, poise, dependability, patriotism, and skills competency. D

BI 118 Business Communications 1-3 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

BI 119 Business Communications 1-3 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: BI 118 with a grade of “C-” or better. F, S

BI 120 Concepts of Accounting 3 credits. Course in the basics of accounting and the accounting cycle. Includes exercises in journalizing, posting, closing procedures and financial statement generation. F, S

BI 121 Digital Input and Transcription 3 credits. Use current digital input devices (digital recorders, speech recognition, personal digital assistants, and handwriting tablets) and standard transcription equipment to produce and manage business information. Emphasis on punctuation, word study, spelling, formatting, and proofreading skills. PREREQ: BI 118 and BI 144 or permission of the instructor. D

BI 123 Business Mathematics 3 credits. Review of basic mathematics with emphasis on application problems in common business situations. F, S

BI 131 Shorthand 1 credit. Introduction to the principles of shorthand, including the shorthand alphabet, brief forms and phrasing. Develops the student’s ability to read shorthand and to take dictation at a minimum of 50 words per minute (nwpm). D

BI 132 Shorthand 1 credit. Puts shorthand theory to work to build speed and accuracy in dictation and transcription. Student should achieve a minimum speed of 80 wpm. PREREQ or COREQ: BI 144. PREREQ: BI 131. D

BI 140 Keyboard Skill Development 1 credit. Enhances keyboarding skills and challenges students to attain higher keyboarding speeds. Emphasis on mastering the keyboard, developing good keyboarding techniques, and building dictionary skills in speed and accuracy. PREREQ: 25 nwpm. F, S, Su
**BI 141 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. F, S, Su

**BI 144 Document Processing 3 credits.** Builds basic word processing competencies. Emphasis on learning word processing functions, developing basic formatting skills, and learning document production such as letters, memos, reports, and table functions. Participants will develop competency with hands-on experience utilizing word processing software. PREREQ: 25 nwpm. D

**BI 145 Advanced Document Processing 3 credits.** This course emphasizes advanced word processing proficiency and focuses on productivity and mailability in document production. Emphasis is also placed on work habits and communication skills. PREREQ: BI 144. F, S

**BI 147 Accounting Applications 3 credits.** Advanced business accounting concepts, principles, and practices. Partnership and corporate accounting, accounting for stocks and bonds. Emphasis on critical thinking and on reinforcing previous accounting knowledge. PREREQ: BI 118, BI 120, and BI 123. S

**BI 148 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: BI 120, BI 123, and BI 170. S

**BI 152 Legal Terminology and Office Procedures 3 credits.** Prepares students for duties and responsibilities in a legal office, develops interpersonal skills, and explores career opportunities. Theory and application of terminology essential in the preparation of legal correspondence and documents. PREREQ: “C” or better in BI 118. PREREQ OR COREQ: BI 119 and BI 145, or permission of instructor. S

**BI 153 Legal Document Processing 3 credits.** Students will become familiar with the U.S. and Idaho court systems in the preparation of forms and legal documents. Students will follow a lawsuit from before it is filed through litigation, trial, judgment, and appeal. Terminology will be utilized in handling legal dictation and transcription. PREREQ: Must have completed or be enrolled in BI 152. S

**BI 154 Administrative Management 3 credits.** Preparation for a broad range of administrative office management responsibilities. Collaboration skills, professional development, and career planning strategies. PREREQ: BI 118 and BI 144. PREREQ OR COREQ: BI 173 and BI 174. F, S

**BI 170 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, email/Internet, and integrated projects that are used in the business environment. PREREQ: 25 nwpm. F, S, Su

**BI 171 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: BI 120, BI 140, BI 144, and BI 170, or permission of instructor. F, S

**BI 172 Business Information Integration and Presentation 3 credits.** Integrate computer applications to produce and present project-based electronic business information, using software such as Adobe Acrobat, PhotoShop, MS Office, MS Publisher, and basic HTML. F, S

**BI 173 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: BI 170 or permission of instructor; typing speed of 25 nwpm recommended. D

**BI 174 Records and Database Management 3 credits.** Introduction to records management. Emphasis on principles and practices of effective records management for manual and computerized records systems. PREREQ: BI 170 or permission of instructor; typing speed of 25 nwpm recommended. D

**BI 175 Computer Applications I 3 credits.** This course is designed to allow students to complete simulated projects utilizing a variety of computer applications. PREREQ: Permission of instructor. D

**BI 201 Business Information Resources Management 3 credits.** Tools for managing technology and productivity in today’s business environment. Basic computer and network maintenance and troubleshooting. PREREQ: BI 154 or permission of instructor. F

**BI 298 Special Topics 1-8 credits.** This course is designed to allow students to complete simulated projects utilizing a variety of computer applications. PREREQ: Permission of instructor. D

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**Civil Engineering Technology**

**Civil Engineering Technician**

(4 Semesters)

**Program Coordinator and Master Instructor:** Valsholtz

One Advanced Technical Certificate, one Associate of Applied Science Degrees, and one Bachelor of Applied Science Degree are available to the student.

**Objectives:**

1) To obtain field data and prepare drawings and maps pertaining to angles, elevations, azimuth points, contours, and earthwork using electronic total stations, levels, global positioning surveying (GPS) and other instruments.

2) To plan, design, and perform construction tasks necessary for the construction of highways, railroads, bridges, buildings, airfields, subdivisions, and other facilities.

3) To perform testing and inspection tasks on various construction operations to ensure compliance with 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/ctechtechnology.shtml](http://www.isu.edu/ctech/ctechtechnology.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: Civil Engineering Technician**

(4 Semesters)

**Required Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CET 110</td>
<td>Applied Mathematics I</td>
<td>4 cr</td>
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<tr>
<td>CET/GEMT 111</td>
<td>Drawing with CAD</td>
<td>3 cr</td>
</tr>
<tr>
<td>CET/GEMT 112</td>
<td>Beginning Surveying</td>
<td>5 cr</td>
</tr>
<tr>
<td>CET 115</td>
<td>Materials Testing and Specifications I</td>
<td>2 cr</td>
</tr>
<tr>
<td>CET 120</td>
<td>Applied Mathematics II</td>
<td>4 cr</td>
</tr>
<tr>
<td>CET/GEMT 121</td>
<td>Civil Engineering Technology Drafting</td>
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<tr>
<td>CET/GEMT 122</td>
<td>Intermediate Surveying</td>
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<td>CET 125</td>
<td>Materials Testing and Specifications II</td>
<td>2 cr</td>
</tr>
<tr>
<td>CET 211</td>
<td>Utility Design and Construction</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

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**Business Technology**

(See Marketing and Management Occupations)
Asphalt testing procedures and Civil Engineering Technology. This requires MATH 147 as a prerequisite. Use of materials testing equipment directly into an academic math course which Mathematics II, a student may enroll directly. After successful completion of Civil Engineering Technology CET 110 Applied Mathematics I and CET 120 Applied Mathematics II, a student may enroll directly into an academic math course which requires MATH 147 as a prerequisite.

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 110 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 111 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. Cross-listed as GEMT 111. F

CET 112 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. Cross-listed as GEMT 112. F

CET 115 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 120 Applied Mathematics II 4 credits. A continuation of CET 110 Applied Mathematics I studying oblique triangle trigonometry and vectors; radians, arc length, and rotations; and other cross-sections, earthwork plats, legal descriptions, and construction specifications III. Emphasis on areas relating to Civil Engineering Technology. PREREQ: CET 110. S

CET 121 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. Cross-listed with CET 121. PREREQ: CET/GEMT 111. S

CET 122 Intermediate Surveying 5 credits. Study of route, 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. Cross-listed as GEMT 122. PREREQ: CET/GEMT 112. S

CET 125 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 115. S

CET 211 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 120. COREQ: CET 212. F

CET 212 Route Survey, Design and State Plane Coordinates 10 credits. Study of route surveying. Circular, spiral, and parabolic curves as applied to highway design. Route locations, plans, and specifications. Is a study of Idaho state plane coordinate system, reservations and radial surveying. Plans will be drawn with plotters using CAD and survey/engineering software. Cross-listed as GEMT 212. PREREQ: CET/GEMT 122.

CET 215 Materials Testing and Specifications III 3 credits. Soils testing procedures are conducted to verify soil 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 125. COREQ: CET 212. F

CET 220 Engineering Mechanics 3 credits. Non-calculus course relating to the principles of plane statics and dynamics and their 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 120.

CET 221 Utility Design and Construction 3 credits. Study of route, 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. Cross-listed as GEMT 122. PREREQ: CET/GEMT 112. S

CET 225 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 215. S

CET 298 Special Topics 1-8 credits. This course is designed to address the specific needs of individuals. It will enable the students to upgrade their technical skills through part-time enrollment in units of instruction that are currently available to verify soils qualification examinations. PREREQ: CET 215. S
Computer Aided Design Drafting Technology

(9 sessions)

Coordinator and Advanced Instructor: Wheelock
Instructors: Churba, Holmes

One Advanced Technical Certificate, one Associate of Applied Science, and one Bachelor of Applied Science are available.

Objectives:
1. To provide educational opportunities for individuals who are seeking work in the design and drafting industry to gain necessary knowledge to create and revise engineering and architectural drawings in various disciplines and complete basic design calculations.
2. To provide students the opportunity to learn to plan drawing layout, project setup, and proficiency in computer-aided-design drafting (CADD) software in a hands-on setting.
3. To prepare students to become employed in a globally competitive marketplace.

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:
- CADD 101 Drafting Technology Theory 1 2 cr
- CADD 102 Drafting Technology Laboratory I 3 cr
- CADD 111 Drafting Technology Theory II 2 cr
- CADD 112 Drafting Technology Laboratory II 3 cr
- CADD 121 Mechanical Drafting Technology Theory I 2 cr
- CADD 122 Mechanical Drafting Technology Laboratory I 3 cr
- CADD 123 Drafting Applied Geometry and Trigonometry 2 cr

Associate of Applied Science Degree: Computer Aided Design Drafting Technology

Required Courses:
- CADD 101 Drafting Technology Theory I 2 cr
- CADD 102 Drafting Technology Laboratory I 3 cr
- CADD 111 Drafting Technology Theory II 2 cr
- CADD 112 Drafting Technology Laboratory II 3 cr
- CADD 121 Mechanical Drafting Technology Theory I 2 cr
- CADD 122 Mechanical Drafting Technology Laboratory I 3 cr
- CADD 123 Drafting Applied Geometry and Trigonometry 2 cr

CADD Courses

CADD 101 Drafting Technology Theory I 2 credits. Basic drafting fundamentals and theory. Includes lettering, linework, spatial visualization and multiview drawings. COREQ: CADD 102. F, S, Su

CADD 102 Drafting Technology Laboratory I 3 credits. Apply Drafting Technology Theory I using drawing boards, drafting instruments, and CAD system. COREQ: CADD 101. F, S, Su

CADD 111 Drafting Technology Theory II 2 credits. Additional drafting fundamentals and theory. Includes sections, auxiliaries and dimensioning. PREREQ: CADD 101. COREQ: CADD 112. F, S, Su

CADD 112 Drafting Technology Laboratory II 3 credits. Apply Drafting Technology Theory II using drawing boards, drafting instruments, and CAD system. PREREQ: CADD 102. COREQ: CADD 111. F, S, Su

CADD 121 Mechanical Drafting Technology Theory I 2 credits. Drafting theory of weldments, gearing, true position dimensioning and axonometric projection. PREREQ: CADD 111. COREQ: CADD 122. F, S, Su

CADD 122 Mechanical Drafting Technology Laboratory I 3 credits. Apply Mechanical Drafting Technology Theory I includes weldments, gearing, bearings, true position dimensioning and axonometric projection. PREREQ: CADD 112. COREQ: CADD 121. F, S, Su

CADD 123 Drafting Applied Geometry and Trigonometry 2 credits. Geometry and trigonometry. Problem solutions relating to design drafting are emphasized. PREREQ: TGE 100A or equivalent. F, S, Su

CADD 131 Drafting Technology Theory III 2 credits. Additional drafting principles and topics. Includes layout of electrical and electronic drawings, and steel detailing. PREREQ: CADD 121. COREQ: CADD 132. F, S, Su

CADD 132 Drafting Technology Laboratory III 3 credits. Apply Drafting Technology Theory III classroom work and lectures including drafting electrical and electronic drawings as well as preparing steel detailing drawings. PREREQ: CADD 122. COREQ: CADD 131. F, S, Su

CADD 133 Drafting Applied Algebra and Statics 2 credits. Geometry, trigonometry and introduction to statistics. Solutions of problems relating to design drafting are emphasized. PREREQ: CADD 123. F, S, Su

CADD 141 Drafting Technology Theory IV 3 credits. Descriptive geometry. Theory of graphical solutions to design problems relating to piping, machinery, and structures are emphasized,
using both manual and computer-aided-design techniques. PREREQ: CADD 121. COREQ: CADD 142. F, S, Su

CADD 142 Drafting Technology Laboratory IV 3 credits. Apply Drafting Technology Theory IV, solving practical design problems using graphical techniques, and stressing logic. Includes structures, machines, and piping. Both manual and CAD procedures are presented. PREREQ: CADD 122. COREQ: CADD 141. F, S, Su

CADD 144 Drafting Applied Science I 2 credits. Review of algebra, geometry, and trigonometry to help students transition into physics and statics. PREREQ: CADD 123. F, S, Su

CADD 201 Mechanical Drafting Technology Theory II 2 credits. Instruction in drafting theory of working drawings, 3D modeling, and piping. PREREQ: CADD 121. COREQ: CADD 202. F, S, Su

CADD 202 Mechanical Drafting Technology Laboratory II 5 credits. Apply Mechanical Drafting Technology Theory II including working drawings, 3D modeling and piping. Emphasis on drawing details, subassemblies, and assemblies using a CAD system. PREREQ: CADD 122. COREQ: CADD 201. F, S, Su

CADD 211 Architectural Design Technology Theory 2 credits. Fundamentals of architectural design, floor plans, elevations, room layout, aesthetic design, site plans, heating and cooling systems, and specification writing. PREREQ: CADD 121. COREQ: CADD 212. F, S, Su

CADD 212 Architectural Design Technology Laboratory 3 credits. Apply Architectural Design Technology Theory. Lab experiences in architectural design. Projects in home design include complete sets of plans following industrial standards. PREREQ: CADD 122, COREQ: CADD 211. F, S, Su

CADD 214 Drafting Applied Science II 2 credits. Properties of materials used in design and construction; construction processes, characteristics of materials including aggregates, Portland cement concrete, and masonry; use of lab equipment for testing of materials. PREREQ: CADD 133. F, S, Su

CADD 221 Electrical Drafting Technology Theory 2 credits. Electronic and electrical packaging concepts and standards. PREREQ: CADD 121. COREQ: CADD 222. F, S, Su

CADD 222 Electrical Drafting Technology Laboratory 5 credits. Apply Electrical Drafting Technology Theory. Drafting of complete electrical drawing packages. PREREQ: CADD 122. COREQ: CADD 221. F, S, Su

CADD 231 Mechanical Design Technology Theory 2 credits. Beam design; truss analysis by use of applied statics, and strengths of materials. Structural design is emphasized. PREREQ: CADD 121. COREQ: CADD 232. F, S, Su

CADD 232 Mechanical Design Technology Laboratory 3 credits. Apply Mechanical Design Technology Theory including beam design, truss analysis and structural design. PREREQ: CADD 122. COREQ: CADD 231. F, S, Su

CADD 234 Drafting Applied Science III 2 credits. Properties and associated testing of materials used in construction and plan details relating to these topics. Statics and strength of materials including stress and deformation, structural and mechanical joints, torsion, centroids and moments of inertia, beam and column design, and combined stresses. PREREQ: CADD 214. F, S, Su

CADD 291 CADD Directed Studies 1-8 credits. Individual work under staff guidance in short, specialized subject areas. PREREQ: CADD major or permission of coordinator. F, S, Su

CADD 295 CADD Internship 1-16 credits. Individual work under staff guidance in short, specialized subject areas. PREREQ: CADD major or permission of coordinator. F, S, Su

CADD 298 Special Topics 1-8 credits. Addresses specific needs of individuals, enabling student to upgrade technical skills through part-time enrollment in units of instruction that are currently available through the program’s full-time pre-employment curriculum. PREREQ: CADD major or permission of coordinator. F, S, Su

This program requires students to achieve certain grades in order to advance each semester. Specific information is available in the program’s student handbook. Every student is required to earn at least a “C” in the program’s technical/core courses as outlined for the degree. A student must have a 2.0 GPA in the program’s required curriculum in order to be eligible for an A.A.S. Degree.

Associate of Applied Science: Computer Software Development/Internet Programmer

(4½ Semesters)

Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSDT 119</td>
<td>Computer Programming Concepts I</td>
<td>5 cr</td>
</tr>
<tr>
<td>CSDT 120</td>
<td>Computer Programming Concepts II</td>
<td>5 cr</td>
</tr>
<tr>
<td>CSDT 181</td>
<td>Computer and Internet Fundamentals</td>
<td>4 cr</td>
</tr>
<tr>
<td>CSDT 184</td>
<td>Computer Operating Systems</td>
<td>4 cr</td>
</tr>
<tr>
<td>CSDT 202</td>
<td>Browser Scripting Language</td>
<td>5 cr</td>
</tr>
<tr>
<td>CSDT 217</td>
<td>Internet Server Scripting</td>
<td>5 cr</td>
</tr>
<tr>
<td>CSDT 218</td>
<td>Internet Scripting Language II</td>
<td>5 cr</td>
</tr>
<tr>
<td>CSDT 220</td>
<td>Internet Programming</td>
<td>5 cr</td>
</tr>
<tr>
<td>CSDT 225</td>
<td>Internet Programming Concepts</td>
<td>5 cr</td>
</tr>
<tr>
<td>CSDT 227</td>
<td>Internet Page Design Languages</td>
<td>5 cr</td>
</tr>
<tr>
<td>CSDT 284</td>
<td>Oracle</td>
<td>4 cr</td>
</tr>
<tr>
<td>CSDT 286</td>
<td>Database Programming</td>
<td>5 cr</td>
</tr>
<tr>
<td>CSDT 288</td>
<td>Advanced Database Programming</td>
<td>4 cr</td>
</tr>
<tr>
<td>CSDT 289</td>
<td>E-Commerce Systems Analysis and Design</td>
<td>5 cr</td>
</tr>
<tr>
<td>TGE 158</td>
<td>Employment Strategies</td>
<td>2 cr</td>
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TOTAL: 84 cr

General Education Requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>ENGL 101</td>
<td>English Composition</td>
<td>3 cr</td>
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<tr>
<td>Goal 2</td>
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<tr>
<td>Goal 3</td>
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<tr>
<td>Goal 5</td>
<td>4 cr</td>
<td></td>
</tr>
<tr>
<td>Goals 6, 7, 9, 10A, 11 and 12</td>
<td>3 cr</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL: 84 cr

CSDT 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.

Every student is required to earn at least a “C” in the program’s technical/core courses as outlined per option or degree. A student must have a 2.0 GPA in the programs required curriculum in order to be eligible for a certificate or A.A.S. Degree.

language such as C++ and using structured and object-oriented programming techniques. Taught as a first programming language. F

CSDT 120  Computer Programming Concepts II 5 credits. Continuation of CSDT 119, including arrays, iteration, sorting, classes and functions. F

CSDT 181  Computer and Internet Fundamentals 4 credits. Introduction to computer and Internet concepts. Exposure to major hardware components and productivity tools. Students design and create Web pages using HTML and CSS. Overview of information systems and current uses of computers in business; current social issues and technological trends involved with computers and the Web. F, S

CSDT 184  Computer Operating Systems and Internet Servers 4 credits. Operating systems management skills including basic file systems, file and directory management, and security. Basic Internet protocols and SMTP and how to configure computers and servers to communicate with the Internet. Work with profiles and manage security on Web servers. S

CSDT 202  Browser Scripting Language 5 credits. Browser and server communication protocols. Use of JavaScript to design and develop dynamic web pages with animation and cookies. Includes validation of web forms on the client side. PREREQ: CSDT 120 or permission of instructor. Su

CSDT 217  Internet Server Scripting Language II 5 credits. Fundamentals of Microsoft Visual Basic programming and ASP.Net to create web forms. Syntax of Visual Basic.NET and ASP.NET including control structures, arrays and functions. Basic web forms that include text boxes, labels, buttons, radio buttons, check boxes, and hypertext links. PREREQ: CSDT 210 or permission of instructor. Su

CSDT 218  Internet Server Scripting Language II 5 credits. Continuation of CSDT 217. Linking web forms to databases, and creating classes using database objects to access Microsoft and Oracle databases. PREREQ: CSDT 217 or permission of instructor. S

CSDT 220  Internet Programming 5 credits. Study of basic protocols that constitute the core of Internet information resources. Introduction to HTTP server technology. Installation and configuration of an Internet server. Includes TCP/IP, HTML, FTP, NNTP and Usenet news basics; access and error logs; introduction to CGI. PREREQ: CSDT 225 and CSDT 287 or permission of instructor. S

CSDT 225  Internet Programming Concepts 5 credits. Explore issues involved in the design, development, and deployment of Internet based applications. PREREQ: CSDT 218 and CSDT 286 or permission of instructor. S

CSDT 227  Internet Page Design Languages 5 credits. Major languages used in the design and development of web pages, including HTML, XHTML, CSS and XML. Basic design principles of web pages and use of XHTML and CSS to design well formed web pages. F

CSDT 284  Oracle 4 credits. Programming in Oracle on the personal computers. The course includes design, development, and testing using Oracle Developer 2000 tools: forms, reports, and graphics. PREREQ: CSDT 286. F

CSDT 286  Database Programming 5 credits. Languages such as Oracle or Visual Basic, introduce the student to the concepts of managing and designing database management systems. Students design databases using Intensity Relationship Diagrams and normalization procedures. Two-tier client/server applications are developed and three-tier architectures are explored. Su

CSDT 288  Advanced Database Programming 4 credits. Continuation of CSDT 286. Use of scripting languages such as PHP or Visual Basic to work with stored procedures and other advanced database features. Use of XML and AJAX to display database information in web pages. PREREQ: CSDT 286 or permission of instructor. S

CSDT 289  E-Commerce Systems Analysis and Design 5 credits. Capstone class including fundamentals of designing a system to be implemented using Web technology. System life cycle and how to use data and process modeling tools to include data flow diagrams and entity relationship diagrams. Design and development of a system using Web technology tools with a database. Complete the study of XML data transfer and web services. S

CSDT 297  Internship 1-16 credits. On-the-job placement providing further work experiences for persons pursuing careers in data processing technology. PREREQ: Permission of instructor.

CSDT 298  Directed Studies 1-16 credits. Work tailored to individual requirements under faculty guidance. PREREQ: Permission of instructor.

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**Computerized Machining Technology**

**One 5-session option; one 8-session option, and one 9-session option**

Coordinator/Advanced Instructor: Clay Instructor: Moore

One Postsecondary Technical Certificate, two Advanced Technical Certificates, one Associate of Applied Science Degree, and one Bachelor of Applied Science Degree are available.

**Objectives**

Students will:

- develop entry-level skills in the operation of manual lathes and milling machines; and
- develop entry-level skills in CNC (Computerized Numerical Control) machine programming and operation.

The program is accredited by The National Association of Industrial Technology.

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/machining_technology.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**

**4 Sessions**

Requires machining experience; a student needs instructor permission to enroll in this option.

**Required Courses:**

- MACH 261  CNC Introduction to Theory  2 cr
- MACH 270  CNC Machining Practice I  4 cr
- MACH 271  CNC Programming Theory I  2 cr
- MACH 272  CNC Math I  2 cr
- MACH 281  CNC Programming Theory I2  2 cr
- MACH 290  CNC Machining Practice II  6 cr

**TOTAL: 18 cr**

**Advanced Technical Certificate: CNC Operator**

**8 Sessions**

**Required Courses:**

- MACH 110  Engine Lathe Practice I  5 cr
- MACH 111  Engine Lathe Theory I  2 cr
- MACH 112  Machine Math I  2 cr
- MACH 120  Milling Practice I  5 cr
- MACH 121  Milling Theory I  2 cr
- MACH 123  Interpreting Blueprints  2 cr
- MACH 130  Engine Lathe Practice II  5 cr
- MACH 135  Materials Science  2 cr
- MACH 136  Applied Machining Geometry and Trigonometry  2 cr
- MACH 140  Milling Practice II  6 cr
- MACH 230  CNC Mill Operations  8 cr
- MACH 240  CNC Lathe Operations  8 cr
- MACH 250  Advanced Machine Practice 17  2 cr
- MACH 260  Advanced Machine Practice II7  2 cr
- MACH 261  CNC Introduction To Theory  2 cr
- TGE 151  Technical Writing I  2 cr
- COMM 101  Principles of Speech  3 cr
- TGE 158  Employment Strategies  2 cr

**TOTAL: 72 cr**
Advanced Technical Certificate: Machining Technology

9 Sessions

Required Courses:
The following required courses must be completed with a 2.0 GPA:

- MACH 110 Engine Lathe Practice I 5 cr
- MACH 111 Engine Lathe Theory I 2 cr
- MACH 112 Machine Math I 2 cr
- MACH 120 Milling Practice I 5 cr
- MACH 121 Milling Theory I 2 cr
- MACH 123 Interpreting Blueprints 2 cr
- MACH 130 Engine Lathe Practice II 5 cr
- MACH 135 Materials Science 2 cr
- MACH 136 Applied Machining Geometry and Trigonometry 2 cr
- MACH 140 Milling Practice II 7 cr
- MACH 221 CAD/CAM I Theory 3 cr
- MACH 225 Interpreting Technical Data 2 cr
- MACH 250 Advanced Machine Practice I 7 cr
- MACH 260 Advanced Machine Practice II 7 cr
- MACH 261 CNC Introduction To Theory 2 cr

General Education Requirements:

- ENGL 101 English Composition 3 cr
- Goal 2 3 cr
- Goal 3 3 cr
- Goal 5 4 cr
- Goals 6, 7, 9, 10A, 11 or 12 3 cr

TOTAL: 93 cr

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.

A C- or better in any Machining Technology required course will allow a student to continue in the program; however, it could prevent a student from graduating if the cumulative grade point average is less than 2.0 (a C- equals 1.7 grade points). A student must have a 2.0 GPA in the program’s required curriculum in order to be eligible for a certificate or degree.

MACH Courses

- MACH 110 Engine Lathe Practice I 5 credits. Basic engine lathe cutting operations of turning, facing, boring, tapering and threading as required when producing machine parts. COREQ: MACH 111. F, S
- MACH 111 Engine Lathe Theory I 2 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 110. F, S
- MACH 112 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 120 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 121. F, S
- MACH 121 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 120. F, S
- MACH 123 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 130 Engine Lathe Practice II 5 credits. A continuation of MACH 110 machining more advanced lathe projects. PREREQ: MACH 110. F, S
- MACH 135 Materials Science 2 credits. A study of ferrous and nonferrous metals, heat treating, hardening tests, alloys, machinability and strength pertaining to the machinist trade. F, S
- MACH 136 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: MATH 144. F, S
- MACH 140 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 120. F, S
- MACH 221 CAD/CAM I Theory 3 credits. Introductory theory course in the utilization of CAD/CAM systems. PREREQ: Permission of program coordinator. Su
- MACH 222 CAD/CAM II Theory 3 credits. Study of tables, charts, formulas, thread calculations, and related information as required of a machinist working in industry. PREREQ: MACH 135 and MACH 136. Su
- MACH 230 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 261. S, F
- MACH 240 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 261. S, F
- MACH 250 Advanced Machine Practice I 7 credits. Advanced machining practices on engine lathes, grinders, drill inspection, and metal layout. PREREQ: MACH 125, MACH 131, MACH 136, and MACH 140. F, S
- MACH 260 Advanced Machine Practice II 7 credits. Advanced machining practice on milling machines and surface grinders. Tasks are performed in an industrial shop atmosphere, working close to tolerance and time limits. PREREQ: MACH 250. F, S

Associate of Applied Science Degree: Computerized Machining Technology

9 Sessions

Required Courses:
The following required courses must be completed with a 2.0 GPA:

- MACH 250 Advanced Machine Practice I 5 cr
- MACH 251 CNC Programming Theory I 2 cr
- MACH 252 CNC Math I 2 cr
- MACH 253 CAD/CAM II 2 cr
- MACH 255 CNC Programming Theory II 2 cr
- MACH 257 CNC Machining Practice II 6 cr
- MACH 259 CNC Machining Practice II 6 cr
- ENGL 101 English Composition 3 cr
- COMM 101 Principles of Speech 3 cr
- TGE 151 Technical Writing I 2 cr
- TGE 158 Employment Strategies 2 cr

TOTAL: 85 cr

Goals 6, 7, 9, 10A, 11 or 12 3 cr
- Goal 5 4 cr
- Goal 3 3 cr
- Goal 2 3 cr
- TOTAL: 93 cr

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.

A C- or better in any Machining Technology required course will allow a student to continue in the program; however, it could prevent a student from graduating if the cumulative grade point average is less than 2.0 (a C- equals 1.7 grade points). A student must have a 2.0 GPA in the program’s required curriculum in order to be eligible for a certificate or degree.

MACH Courses

- MACH 110 Engine Lathe Practice I 5 credits. Basic engine lathe cutting operations of turning, facing, boring, tapering and threading as required when producing machine parts. COREQ: MACH 111. F, S
- MACH 111 Engine Lathe Theory I 2 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 110. F, S
- MACH 112 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 120 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 121. F, S
- MACH 121 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 120. F, S
- MACH 123 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 130 Engine Lathe Practice II 5 credits. A continuation of MACH 110 machining more advanced lathe projects. PREREQ: MACH 110. F, S
- MACH 135 Materials Science 2 credits. A study of ferrous and nonferrous metals, heat treating, hardening tests, alloys, machinability and strength pertaining to the machinist trade. F, S
- MACH 136 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: MATH 144. F, S
- MACH 140 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 120. F, S
- MACH 221 CAD/CAM I Theory 3 credits. Introductory theory course in the utilization of CAD/CAM systems. PREREQ: Permission of program coordinator. Su
- MACH 222 CAD/CAM II Theory 3 credits. Study of tables, charts, formulas, thread calculations, and related information as required of a machinist working in industry. PREREQ: MACH 135 and MACH 136. Su
- MACH 230 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 261. S, F
- MACH 240 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 261. S, F
- MACH 250 Advanced Machine Practice I 7 credits. Advanced machining practices on engine lathes, grinders, drill inspection, and metal layout. PREREQ: MACH 125, MACH 131, MACH 136, and MACH 140. F, S
- MACH 260 Advanced Machine Practice II 7 credits. Advanced machining practice on milling machines and surface grinders. Tasks are performed in an industrial shop atmosphere, working close to tolerance and time limits. PREREQ: MACH 250. F, S
MACH 261 CNC Introduction to Theory 2 credits. An introductory course in basic programming of computer controlled machine tools. Emphasis is theory only. PREREQ: Permission of program coordinator.

MACH 270 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. F, S

MACH 271 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. F, S

MACH 272 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 132. F, S

MACH 275 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 220 and MACH 221. F, S

MACH 281 CNC Programming Theory II 2 credits. An advanced course in the programming, set-up and operations of computer numerically controlled machine tools and accessory devices. MACH 281 is a continuation of MACH 271. PREREQ: MACH 271. F, S

MACH 290 CNC Machining Practice II 6 credits. An advanced course in the programming, set-up and operations of the computer numerically controlled machine tools. MACH 290 is an advanced continuation of MACH 270. PREREQ: MACH 270. F, S

MACH 298 Special Topics I-8 credits. Addresses the specific needs of individuals. It will enable the students to upgrade their technical skills through part-time enrollment in units of instruction that are currently available through the program’s full-time pre-employment curriculum. PREREQ: Permission of instructor.

Cosmetology

(3½ Semesters and/or ½ Session)

Advanced Instructors: Fitch, Jackson
Instructors: Fuger, Wilde

Two certificates are available. Also see Marketing and Management (Business Technology option) for the Associate of Applied Science Degree.

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 available 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 150 Principles and Practice of Nail Technology 11 cr
TOTAL: 11 cr

Technical Certificate: Cosmetology

(3½ Semesters)

Required Courses:

Successful completion of the 56 credits is required to be eligible to take the State Board Examination.

COSM 116 Introduction Principles and Practice of Cosmetology 8 cr
COSM 117 Beginning Principles and Practice of Cosmetology 8 cr
COSM 126 Fundamental Principles and Practice of Cosmetology I 8 credits.
COSM 127 Fundamental Principles and Practice of Cosmetology II 8 credits.
COSM 150 Principles and Practice of Cosmetology I 8 cr
COSM 156 Fundamental Principles and Practice of Cosmetology II 6 cr
COSM 236 Advanced Principles and Practice of Cosmetology I 8 cr
COSM 237 Seminar 1-6 cr

COSM Courses

COSM 116 Introduction to Principles and Practices of Cosmetology 8 credits. This course is designed to provide the student with basic knowledge of the fundamentals of hair chemistry and biology with an introduction to basic permanent waving chemistry, hair cutting and hair styling. The student will perform and demonstrate application of the basic principles on a mannequin. Interpersonal skills, professional and personal development, the dynamics of people skill within the salon industry will be introduced. This course requires critical thinking, writing and verbal communication skills pertaining to the field of cosmetology. Role playing and mock situations will be utilized. Classroom and lab will integrated. F, S

COSM 117 Beginning Principles and Practice of Cosmetology 8 credits. This course builds upon concepts taught in COSM 116 - Principles and Practice. This course will continue with the basic fundamentals of hair design, hair chemistry and biology, and interpersonal skills. Classroom and lab will be integrated. PREREQ: COSM 116. F, S

COSM 126 Fundamental Principles and Practice of Cosmetology I 8 credits. Continuation of concepts and practices taught in COSM 117. This course is a combination of classroom, lab and live work on the clinic floor dealing with customer needs and practical application therein. PREREQ: COSM 117. F, S

COSM 127 Fundamental Principles and Practice of Cosmetology II 8 credits. Continuation of COSM 126. This course is a combination of lab, live work, and classroom work. The students will perform services on clientele, learn retail, customer relation, scheduling appointments, and dispensary duties pertaining to all phases of cosmetology. PREREQ: COSM 126. F, S

COSM 150 Principles and Practice of Nail Technology 11 credits. Course activities explore all types of 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 156 Fundamental Principles and Practice of Cosmetology III 2 credits. Continuation of COSM 127. PREREQ: COSM 127. Su

COSM 157 Fundamental Principles and Practice of Cosmetology IV 6 credits. Continuation of COSM 156. PREREQ: COSM 156. Su

COSM 236 Advanced Principles and Practice of Cosmetology I 8 credits. Continuation of COSM 157. Study of advanced techniques and concepts of cosmetology, including salon development, the salon business, and state laws and regulations. PREREQ: COSM 157. F, S

COSM 237 Seminar 1-6 cr

COSM 279 Seminar 1-16 cr. This course is designed as a review for re-examination and/or refresher course for cosmetologists from Idaho or other states in preparation for the Idaho State Board of Cosmetology Examination.
**COSM 298 Special Topics 1-8 credits.** This course is designed to meet the specific needs of individuals. It will enable the students to upgrade their technical skills through part-time or full-time enrollment in units of instruction that are currently available through the program’s full-time pre-employment program. Teacher training is available for those individuals preparing to take the State Board Instructors Examination. PREREQ: Permission of program coordinator.

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**Culinary Arts Technology**

**(2½ and 4½ Semesters)**

Coordinator and Instructor: Miller

Instructor: Peters

One Technical Certificate, one Associate of Applied Science Degree, and a Bachelor of Applied Science Degree are available.

**Objectives:**

1. To train students to produce safe, healthy, and creative food for all segments of the food service industry handling one type of specialized food preparation or preparing all the foods served in a given establishment.

2. To train students to plan menus, control costs, purchase food supplies, and supervise personnel.

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/etech/culinary.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.

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**Technical Certificate: Culinary Arts**

**(2½ Semesters)**

**Required Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUAR 110</td>
<td>Culinary Foundations I</td>
<td>3 cr</td>
</tr>
<tr>
<td>CUAR 111</td>
<td>Culinary Skill Development I</td>
<td>7 cr</td>
</tr>
<tr>
<td>CUAR 115</td>
<td>Applied Sanitation</td>
<td>2 cr</td>
</tr>
<tr>
<td>CUAR 117</td>
<td>Dining Room, Banquet, and Catering Operations</td>
<td>2 cr</td>
</tr>
<tr>
<td>CUAR 119</td>
<td>Culinary Weights and Measures</td>
<td>1 cr</td>
</tr>
<tr>
<td>CUAR 120</td>
<td>Culinary Foundations II</td>
<td>3 cr</td>
</tr>
<tr>
<td>CUAR 121</td>
<td>Culinary Skill Development II</td>
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<td>CUAR 130</td>
<td>Culinary Foundations III</td>
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<td>CUAR 131</td>
<td>Culinary Skill Development III</td>
<td>3 cr</td>
</tr>
<tr>
<td>CUAR 135</td>
<td>Menu Mechanics</td>
<td>2 cr</td>
</tr>
<tr>
<td>CUAR 137</td>
<td>Nutrition in Food Service Operations</td>
<td>2 cr</td>
</tr>
<tr>
<td>CUAR 214</td>
<td>Beverage Operations</td>
<td>3 cr</td>
</tr>
<tr>
<td>CUAR 224</td>
<td>Food Service Operations</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 101</td>
<td>English Composition</td>
<td>3 cr</td>
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</tbody>
</table>

**TOTAL: 78 cr**

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**Associate of Applied Science Degree: Culinary Arts**

**4½ Semesters**

**Required Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUAR 110</td>
<td>Culinary Foundations I</td>
<td>3 cr</td>
</tr>
<tr>
<td>CUAR 111</td>
<td>Culinary Skill Development I</td>
<td>7 cr</td>
</tr>
<tr>
<td>CUAR 115</td>
<td>Applied Sanitation</td>
<td>2 cr</td>
</tr>
<tr>
<td>CUAR 117</td>
<td>Dining Room, Banquet, and Catering Operations</td>
<td>2 cr</td>
</tr>
<tr>
<td>CUAR 119</td>
<td>Culinary Weights and Measures</td>
<td>1 cr</td>
</tr>
<tr>
<td>CUAR 120</td>
<td>Culinary Foundations II</td>
<td>3 cr</td>
</tr>
<tr>
<td>CUAR 121</td>
<td>Culinary Skill Development II</td>
<td>3 cr</td>
</tr>
<tr>
<td>CUAR 130</td>
<td>Culinary Foundations III</td>
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<td>CUAR 131</td>
<td>Culinary Skill Development III</td>
<td>3 cr</td>
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<tr>
<td>CUAR 135</td>
<td>Menu Mechanics</td>
<td>2 cr</td>
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<tr>
<td>CUAR 137</td>
<td>Nutrition in Food Service Operations</td>
<td>2 cr</td>
</tr>
<tr>
<td>CUAR 211</td>
<td>Entree and Sautéing Preparation</td>
<td>3 cr</td>
</tr>
<tr>
<td>CUAR 212</td>
<td>Advanced Garde Manger and Appetizers</td>
<td>3 cr</td>
</tr>
<tr>
<td>CUAR 214</td>
<td>Beverage Operations</td>
<td>3 cr</td>
</tr>
<tr>
<td>CUAR 221</td>
<td>Culinary Management</td>
<td>3 cr</td>
</tr>
<tr>
<td>CUAR 223</td>
<td>Advanced Baking and Dessert</td>
<td>3 cr</td>
</tr>
<tr>
<td>CUAR 224</td>
<td>Food Service Operations</td>
<td>3 cr</td>
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<tr>
<td>CUAR 250</td>
<td>Culinary Internship</td>
<td>3 cr</td>
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<tr>
<td>BI 120</td>
<td>Concepts of Accounting</td>
<td>3 cr</td>
</tr>
<tr>
<td>TGE 158</td>
<td>Employment Strategies</td>
<td>2 cr</td>
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</table>

**3 credits from the following courses to fulfill the course requirements in computers:**

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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>CIS 101</td>
<td>Introduction to Computers</td>
<td>3 cr</td>
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<tr>
<td>CSDT 181</td>
<td>Computer Fundamentals</td>
<td>3 cr</td>
</tr>
<tr>
<td>OT 170</td>
<td>Introduction to Computer Systems</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

**General Education Requirements:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>English Composition</td>
<td>3 cr</td>
</tr>
<tr>
<td>Goal 2</td>
<td></td>
<td>3 cr</td>
</tr>
<tr>
<td>Goal 3</td>
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<tr>
<td>Goal 12</td>
<td></td>
<td>3 cr</td>
</tr>
<tr>
<td>Goal 2 - 11</td>
<td></td>
<td>4 cr</td>
</tr>
</tbody>
</table>

**TOTAL: 78 cr**

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**CUAR Courses**

**CUAR 110 Culinary Foundations I 3 credits.** Introduction to the foodservice 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. F, S

**CUAR 111 Culinary Skill Development I 7 credits.** Basic food service skills. Hands-on food preparation in a commercial kitchen environment, using standardized recipes and procedures. Daily end product critiquing. Station rotations in baking, banquet/catering, entrée preparation, garde manger, and short order cookery. F, S

**CUAR 115 Applied Sanitation 1 credit.** 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 117 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 119 Culinary Weights and Measures 1 credit.** Hands-on application of basic math principles that are used in food service operations. F

**CUAR 120 Culinary Foundations II 3 credits.** Builds on concepts taught in CUAR 110. 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. F, S

**CUAR 121 Culinary Skill Development II 7 credits.** Continues to advance the student’s baking and food preparation skills through the different station rotations. F

**CUAR 130 Culinary Foundations III 2 credits.** Builds on concepts taught in CUAR 120. Through lectures and demonstrations, introduces principles of the bake shop, including quick breads, yeast breads, pies, pastries, cookies, custards, cakes, and frostings. F, S, Su

**CUAR 131 Culinary Skill Development III 3 credits.** Continues to advance the student’s baking and food preparation skills through the different station rotations. Su

**CUAR 135 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 137 Nutrition in Food Service Operations 2 credits.** This course addresses the fundamental nutritional concepts for food service professionals. Su

**CUAR 198 Industry Practicum (variable 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 211 Entree and Sautéing 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 212 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 214 Beverage Operations 3 credits.** Practical experience and approaches in beverage operations and service. Service and storage of beverages in food service operations. F

**CUAR 221 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 223 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 224 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 250 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 298 Special Topics 1-16 credits. Supervised field experience at cooperating operations to gain practical experience. Training plans are utilized to ensure maximum training opportunities. This course also discusses aspects of how to secure employment. F, S, Su

Dental Laboratory Technology

(5 Semesters)

Program Coordinator and Instructor: Davidson
Instructor: Edmunds

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 work in cooperation with licensed dentists with the ultimate goal of maintaining and improving a patient’s dental health, function, and/or esthetics.

Graduate dental technicians will fabricate dental restorations, corrective appliances, or any device the licensed dentist might place in the mouth of a patient.

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/dentaltech.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: Dental Laboratory Technology

(5 Semesters)

Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DLT 111</td>
<td>Oral Anatomy and Tooth Morphology</td>
<td>4</td>
</tr>
<tr>
<td>DLT 112</td>
<td>Dental Anatomy Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>DLT 113</td>
<td>Occlusal Concepts</td>
<td>2</td>
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<tr>
<td>DLT 114</td>
<td>Occlusal Laboratory Practice</td>
<td>3</td>
</tr>
<tr>
<td>DLT 115</td>
<td>Applied Dental Chemistry and Physics</td>
<td>2</td>
</tr>
<tr>
<td>DLT 131</td>
<td>Crown and Bridge Concepts</td>
<td>3</td>
</tr>
<tr>
<td>DLT 132</td>
<td>Crown and Bridge Techniques</td>
<td>3</td>
</tr>
<tr>
<td>DLT 133</td>
<td>Complete Denture Principles</td>
<td>2</td>
</tr>
<tr>
<td>DLT 134</td>
<td>Complete Denture Techniques</td>
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</tr>
<tr>
<td>DLT 135</td>
<td>Dental Materials</td>
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<tr>
<td>DLT 151</td>
<td>Removable Partial Denture Concepts</td>
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<tr>
<td>DLT 152</td>
<td>Removable Partial Denture Techniques</td>
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<tr>
<td>DLT 153</td>
<td>Concepts of Orthodontic/Pedodontic Treatment Appliances</td>
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<tr>
<td>DLT 154</td>
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<td>DLT 155</td>
<td>Professional and Industrial Relations</td>
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<td>DLT 263</td>
<td>Removable Prosthetics</td>
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<td>DLT 267</td>
<td>Dental Laboratory Orientation</td>
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<td>DLT 271</td>
<td>Porcelain Fused to Metal Substructure Concepts</td>
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<td>DLT 272</td>
<td>Porcelain Fused to Metal Substructure Techniques</td>
<td>3</td>
</tr>
<tr>
<td>DLT 273</td>
<td>Fixed Ceramic Restoration, Porcelain Concepts</td>
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</tr>
<tr>
<td>DLT 274</td>
<td>Fixed Ceramic Restoration, Porcelain Technique</td>
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<tr>
<td>DLT 277</td>
<td>Dental Implants and Precision Attachments</td>
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<tr>
<td>DLT 285</td>
<td>Dental Lab Clinical Practice</td>
<td>5</td>
</tr>
<tr>
<td>DLT 286</td>
<td>Dental Lab Specialty Practice</td>
<td>5</td>
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<tr>
<td>ENGL 101</td>
<td>English Composition</td>
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<td>Goal 2</td>
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<tr>
<td>Goals 2-12</td>
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</table>

Total: 86 cr

DLT Courses

All listed prerequisite courses must be completed with a grade of “C” or better.

DLT 111 Oral Anatomy and Tooth Morphology 4 credits. A theoretical study of oral structures, systems and dentition. The student will study the skeletal, muscular, vascular and neural systems of the oral environment as well as terminology, tooth anatomy and general considerations. F

DLT 112 Dental Anatomy Laboratory 4 credits. This laboratory course provides the student experience in waxing anatomically correct individual tooth patterns on models with removable dies. F

DLT 113 Occlusal Concepts 2 credits. This course is designed to enable the student to become acquainted with various occlusal concepts and theories commonly accepted within the dental field. F

DLT 114 Occlusal Laboratory Practice 3 credit. Laboratory exercises provide practice in waxing anatomically correct tooth patterns on casts with removable dies, mounted on semi-adjustable articulators, so that the patterns interdigitate and occlude. F

DLT 115 Applied Dental Chemistry and Physics 2 credits. A lecture/lab class relating basic chemistry and physics applied to materials used in dental laboratories. Topics include, but are not limited to, atomic structure, bonding, investments, gypsum materials. Properties of metals: malleability, ductility, electronegativity, stress, strain, elasticity, and thermal properties. F

DLT 131 Crown and Bridge Concepts 3 credits. A theory course to study various procedures for model development, waxing, casting, finishing and polishing crowns and bridges. Primarily crown and bridge and full-cast restorations. PREREQ: DLT 111 and DLT 113. S

DLT 132 Crown and Bridge Techniques 4 credits. A laboratory course to introduce students to various techniques in model development, waxing, spraying, investing, casting, finishing and polishing crowns and bridges. PREREQ: DLT 112 and DLT 114. S

DLT 133 Complete Denture Principles 2 credits. The theory course introduces the student to the general principles and procedures involved in the fabrication of complete dentures. PREREQ: Completion of DLT 111 and DLT 113. S

DLT 134 Complete Denture Techniques 3 credits. A laboratory course designed to provide experiences in laboratory procedures used in the fabrication of complete dentures. PREREQ: DLT 112 and DLT 114. S

DLT 135 Dental Materials 3 credits. This theory course describes the uses, characteristics, properties, manipulation, reactions and technique variables that affect the desired properties of commonly used dental materials. PREREQ: DLT 115. S

DLT 151 Removable Partial Denture Concepts 2 credits. This lecture course covers the broad aspect of removable partial dentures from identification of parts of frameworks and completed dentures to classifications, concepts of survey and design, duplication, waxing, casting, finishing and polishing using chrome cobalt alloys. In addition, tooth arrangement, processing and other considerations are covered. PREREQ: DLT 131, DLT 133 and DLT 135. Su

DLT 152 Removable Partial Denture Techniques 3 credits. This laboratory course offers the student experience in surveying, duplication, waxing, casting finishing and polishing frameworks. PREREQ: DLT 132 and DLT 134. Su
DLT 153 Concepts of Orthodontic/Pedodontic Treatment Appliances 1 credit. This lecture course is designed to enable the student to acquire the knowledge necessary to perform the varied laboratory procedures in the fabrication of orthodontic/pedodontic appliances. PREREQ: DLT 131, 133 and DLT 135. S

DLT 154 Orthodontic/Pedodontic Treatment Appliance Techniques 1 credit. This laboratory course will provide experience in wire bending and contouring necessary for the fabrication of removable appliances. PREREQ: DLT 132 and DLT 134. S

DLT 155 Professional and Industrial Relations 3 credits. Covers a variety of topics necessary to the understanding and comprehension of the relationships between the dental profession and dental laboratory industry. Topics include history, education, recognition programs, ethical and legal aspects are covered as well as the work environment and infection control. The dental health team concept is covered also. PREREQ: DLT 131, DLT 132, DLT 134 and DLT 135. S

DLT 263 Removable Prosthodontics Concepts 2 credits. This theory course is an intermediate course of DLT 153 and 151. Topics covered deal with different types of removable prosthetic appliances, complete denture to partial denture, plastic vs. porcelain teeth, overdentures, and repairs among other topics. PREREQ: Completion of DLT 133, DLT 151, DLT 153, and DLT 155 with a “C” or better. F

DLT 264 Removable Prosthodontic Techniques 3 credits. This laboratory course covers different types of cases, tooth arrangements, immediate dentures, repairs and relines. PREREQ: Completion of DLT 152, DLT 154, and DLT 155 with a “C” or better. F

DLT 267 Dental Laboratory Orientation 1 credit. This course will consist of visits to different laboratories to observe dental technology in the real world, dental lab environment. Insurance required. PREREQ: completion of DLT 111 through DLT 155 with a “C” or better. F

DLT 271 Porcelain Fused to Metal Substructure Concepts 3 credits. A lecture course designed to give the student an understanding of the requirements of porcelain fused to metal substructure design in single copings, bridge construction, combination crown and bridge-prosthetic case, and in the use of stress breakers (semi-precision attachment). PREREQ: Completion of DLT 131, DLT 135, and DLT 155 with a “C” or better. F

DLT 272 Porcelain Fused To Metal Substructure Techniques 4 credits. Laboratory course designed to give the practical hands-on experience of fabricating P.F.M. substructures of different design requirements. The projects completed in this course will be used to fabricate the P.F.M. projects for DLT 274. PREREQ: Completion of DLT 132, DLT 135, and DLT 155 with a “C” or better. F

DLT 273 Fixed Ceramic Restoration, Porcelain Concepts 3 credits. A lecture course in the porcelain phase of porcelain fused to metal restoration and also, all porcelain (no metal) jacket crowns, veneers, inlays and onlays.

PREREQ: Completion of DLT 135 and DLT 272 with a “C” or better. S

DLT 274 Fixed Ceramic Restoration, Porcelain Technique 4 credits. This is a lab course in the porcelain phase of porcelain fused to metal restoration and also all porcelain (no metal) jacket crowns, veneers, inlays and onlays. PREREQ: Completion of DLT 135 and DLT 272 with a “C” or better. S

DLT 277 Dental Implants and Precision Attachments 3 credits. This course covers the different kinds of implants: subperiosteal, transosteal, but primarily, endosseous (osseo-integration). Also covered are different parts used: screws, posts, analogs, healing caps, etc. and some of the procedures used with each. The precision attachments covered will be intracoronal and extracoronal for fixed restorations, fixed to removable and fully endentulous, also stud and bar attachments with miscellaneous screws, plungers, and cross arch bracing, etc. PREREQ: DLT 263, DLT 264, DLT 271 and DLT 272 with a “C” or better. S

DLT 285 Dental Laboratory Clinical Practice 5 credits. This course is an on-site laboratory experience designed to provide the student with an actual work load and environment. The requirements of this course may also be met through actual employment. All necessary evaluation procedures must be followed. Insurance required. Important! The student must be enrolled and participating in DLT 285 either in a clinical practice environment or as an employee of a dental lab. If the student is not fulfilling the requirement of DLT 285 (240 hours) or not enrolled in DLT 286 a grade of “F” will be given to the respective student. PREREQ: completion of DLT 263, DLT 264, DLT 267, DLT 271, DLT 272, DLT 273, and DLT 274 with a “C” or better. Su

DLT 286 Dental Laboratory Specialty Practice 5 credits. This course is a practical laboratory experience designed at ISU to provide the student the opportunity to apply the knowledge and skills learned in the formal portion of the program. This course may be taken in lieu of DLT 285 with the instructor’s approval. PREREQ: Completion of DLT 263, DLT 264, DLT 273 and DLT 274 with a “C” or better and permission of the instructor. Su

DLT 298 Advanced Directed Studies 1-8 credits. Designed to meet specific needs of the student through individual work under faculty guidance. PREREQ: Permission of instructor.

Advanced Technical Certificate: Diesel Technology

(3 Semesters)

Required Courses:

DESL 101 Introduction to Mechanics 2 cr
DESL 107 Fundamentals of Electricity 6 cr
DESL 109 Car Air Conditioning 1 cr
DESL 113 Diesel Fuel Systems 6 cr
DESL 115 Diesel Hydraulics 2 cr
DESL 116 Power Shift Transmissions 3 cr
DESL 117 Heavy Duty Brake Systems 2 cr
DESL 125 Heavy Duty Power Trains 7 cr
DESL 182 Gas Engines 2 cr
DESL 184 Diesel Engines 5 cr
DESL 231 Live Work 1 8 cr
DESL 251 Internship 8 cr
TGE 151 Technical Writing 1 2 cr
TGE 152 Technical Writing 2 2 cr
TGE 158 Employment Strategies 2 cr

General Education Requirement:

Goal 2 3 cr
TOTAL: 53 cr

Elective Courses:

DESL 298 Special Topics 1-16 cr
MACH 105 Machining Practices 1-4 cr
WELD 105 Welding 1-4 cr

Advanced Technical Certificate: On-Site Power Generation Technology

(4 Semesters)

Required Courses:

DESL 101 Introduction to Mechanics 2 cr
DESL 107 Fundamentals of Electricity 6 cr
DESL 109 Car Air Conditioning 1 cr

Diesel/On-Site Power Generation Technology

(3 to 5 Semesters)

Program Coordinator and Instructor: Bullock
Instructors: Dixon, Holmes, Schwope

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 that 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/ethnic/dieseltechnology.shtml
DESL 113 Diesel Fuel Systems 6 cr
DESL 115 Diesel Hydraulics 2 cr
DESL 116 Power Shift Transmissions 3 cr
DESL 117 Heavy Duty Brake Systems 2 cr
DESL 125 Heavy Duty Power Trains 7 cr
DESL 182 Gas Engines 2 cr
DESL 184 Diesel Engines 5 cr
DESL 241 On-Site Power Generation I 8 cr
DESL 243 On-Site Power Generation II 8 cr
DESL 251 Internship 8 cr

General Education Requirements:

Goal 2 3 cr

TOTAL: 60 cr

Associate of Science Degree: On-Site Power Generation Technology
(5 Semesters)

Required Courses:

DESL 101 Introduction to Mechanics 2 cr
DESL 107 Fundamentals of Electricity 6 cr
DESL 109 Car Air Conditioning 1 cr
DESL 113 Diesel Fuel Systems 6 cr
DESL 115 Diesel Hydraulics 2 cr
DESL 116 Power Shift Transmissions 3 cr
DESL 117 Heavy Duty Brake Systems 2 cr
DESL 125 Heavy Duty Power Trains 7 cr
DESL 182 Gas Engines 2 cr
DESL 184 Diesel Engines 5 cr
DESL 241 On-Site Power Generation I 8 cr
DESL 243 On-Site Power Generation II 8 cr
DESL 251 Internship 8 cr

General Education Requirements:

Goal 2 3 cr
Goal 3 3 cr
Goal 6, 7, 9, 10A, 11 or 12 3 cr
Goal 2-12 4 cr

TOTAL: 76 cr

DESL Courses

DESL 101 Introduction To Mechanics 2 credits. A review of the diesel industry and safety policies along with theory and practice of use and care of hand tools, fasteners, precision measuring devices, tubing fabrication, soldering, and applied shop mathematics. D

DESL 107 Fundamentals of Electricity 6 credits. Theory and practice in basic electricity and electronics, ignition systems, wiring circuits, charging and starting systems (both 12 and 24 volts). Troubleshooting and repair with proper use and care of tools and testing equipment. D

DESL 109 Cab Air Conditioning 1 credit. The fundamentals of cab air conditioning and the basic concepts of refrigeration as used in the diesel industry using the theory and lab practice in the principles of operation, repair and testing. D

DESL 113 Diesel Fuel Systems 6 credits. Fundamentals of diesel fuel systems which include theory and lab practice on theory of operation, repair, troubleshooting, and adjustments of fuel injection systems including electronically controlled systems. D

DESL 115 Diesel Hydraulics 2 credits. Theory and operation of hydraulics. Lab practice covering testing, troubleshooting techniques, and repair will be covered. D

DESL 116 Power Shift Transmissions 3 credits. Theory and practice of power-shift transmissions with introduction to electronically integrated shift. Lab practice covering testing, troubleshooting techniques and repair to return the units to manufacturer’s specifications will be presented. D

DESL 117 Heavy Duty Brake Systems 2 credits. Theory and lab practice for diagnosing, troubleshooting, and repairing of farm, construction, and truck brake systems. Introduction to ABS braking systems will be presented. D

DESL 125 Heavy Duty Power Trains 7 credits. Theory and lab practice for diagnosing, troubleshooting, and repairing of farm, construction, and truck power train systems. D

DESL 182 Gas Engines 2 credits. Theory in the fundamentals of the operation of gas engines. The laboratory section consists of overhaul procedure, repair, tune-up diagnosis and testing of operable engines. D

DESL 184 Diesel Engines 5 credits. Theory in the fundamentals of the operation of diesel engines. The laboratory section consists of overhaul procedure, repair, tune-up, diagnosis and testing of operable engines. PREREQ: DESL 182 or comparable. D

DESL 231 Live Work I 8 cr. This course covers the principles of diagnosis, repair and trouble shooting on operable equipment. The classroom portion will include customer relations and shop management techniques. D

DESL 241 On-Site Power Generation I 8 credits. Principles, diagnosis, repair, and troubleshooting on operable on-site power generation equipment. D

DESL 243 On-Site Power Generation II 8 credits. A continuation of DESL 241. D

DESL 251 Internship 8 credits. A final phase of training in an actual diesel shop repair facility, performing all types of repair work and receiving pay for services completed.

DESL 298 Special Topics 1-16 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 enrollment. PREREQ: Permission of instructor.

Early Childhood Care and Education Associate Degree Program
(2 to 4 Semesters)

Program Coordinator/Senior Instructor: McQuain
Instructor: Ingram

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 Child Development coursework may be articulated to the Bachelor of Arts in Early Childhood Education, offered in the College of Education.

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 parents and the program.

All courses in the major and ENGL (English) 101 and 102, 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.

(2 Semesters --Evening)
Required Courses:
CHILD 160 Professionalism in Family Child Care 1 cr
CHILD 161 Child Health and Safety 1 cr
CHILD 166 Guidance in Early Childhood Education 1 cr
CHILD 168 Early Childhood Physical and Cognitive Development 2 cr
CHILD 170 Fostering Creativity 1 cr
CHILD 172 Curriculum Implementation 2 cr
CHILD 174 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):

CHILD 113 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 Evening)
Required Courses:
CHILD 105 Introduction to Early Childhood Care and Education 3 cr
CHILD 110 Child Health, Safety, Nutrition, and Environments 4 cr
CHILD 125 Guidance in Early Childhood Care and Education 3 cr
CHILD 130 Physical and Cognitive Development in Early Childhood Care and Education 6 cr
CHILD 135 Fostering Creativity 3 cr
CHILD 141 Family-Centered Care and Program Management in Early Childhood Care and Education 3 cr

CHILD 151 Childcare and Care Education 3 cr
ENGL 101 English Composition 3 cr

TOTAL: 35 cr

Associate of Applied Science Degree: Early Childhood Care and Education (4 Semesters)

Required Courses:
BI 170 Introduction to Computers 3 cr
CHILD 105 Introduction to Early Childhood Care and Education 3 cr
CHILD 110 Child Health, Safety, Nutrition, and Environments 4 cr
CHILD 120 Social and Emotional Development in Early Childhood Care and Education 6 cr
CHILD 125 Guidance In Early Childhood Care and Education 3 cr
CHILD 130 Physical and Cognitive Development in Early Childhood Care and Education 6 cr
CHILD 135 Fostering Creativity 3 cr
CHILD 141 Family-Centered Care and Program Management in Early Childhood Care and Education 3 cr
CHILD 151 Curriculum Planning and Implementation in Early Childhood Care and Education 3 cr
CHILD 210 Advanced Topics in Early Childhood Care and Education 3 cr
CHILD 215 Children with Exceptionalities 2 cr
CHILD 220 Administration and Program Management in Early Childhood Care and Education 3 cr
CHILD 298 Special Topics in Early Childhood Care and Education 1-3 cr

General Education Requirements:
ENGL 101 English Composition 3 cr
ENGL 102 Critical Reading and Writing (Goal 1) 3 cr
Goal 2 3 cr
Goal 3 3 cr
BIOL 100,100L Concepts Biology: Human Concerns, and Lab (Goal 4) 4 cr
PSYC 101 Introduction to General Psychology (Goal 12) 3 cr
SOC 101 Introduction to Sociology (Goal 12) 3 cr
Three credits from Goals 5, 6, 7, 8, 9, or 10 3 cr
Total Required Credits: 69 cr

CHLD Courses
CHILD 105 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

CHILD 110 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

CHILD 113 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

CHILD 120 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

CHILD 125 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

CHILD 130 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 101. F, S

CHILD 135 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

CHILD 141 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 respectful, collaborative relationships between today’s diverse families, centers/school, and community
Students will be taught how to assess and ensure safety practices in early care and education. This course introduces students to health and safety practices in early childhood education and care 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 OR COREQ: ENGL 102, BI 170, and COMM 101. F

CHLD 172 Curriculum Planning and 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 individualized instruction. D

CHLD 174 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 individualized instruction. D

CHLD 201 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 OR COREQ: ENGL 102, BI 170, and COMM 101. F

CHLD 215 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 OR COREQ: ENGL 102, BI 170, and COMM 101. F

CHLD 220 Administration and Program Management in Early Childhood Care and Education 4 credits. Policies, procedures, personnel management for ECCE programs, including budgeting needs, marketing, and issues of insurance and applicable laws. Implementation of program goals, development of effective personnel supervision and managerial styles, and meeting NAEYC standards. PREREQ: CHLD 210 or CHLD 215. S

CHLD 250 Capstone Project in Early Childhood Care and Education 1 credit. Students will demonstrate, through either a teaching role or an administrative role, their competence in integrating academic skills with early childhood knowledge. PREREQ: Permission of instructor. F, S

CHLD 298 Topics in Early Childhood Care and Education 1-3 credits. Addresses the specific needs of individuals. PREREQ: Permission of instructor. F, S

CHLD 160 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 curriculums. Includes classroom lectures and individualized instruction. D

CHLD 161 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 162 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 164 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 166 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 168 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 170 Fostering Creativity in Family Child Care 1 credit. An introductory course which includes the value of play for children and methods to advance emotional, physical and intellectual competence through opportunities that stimulate children to play with sound, rhythm, language materials, space and ideas in individual ways, and to express their creative abilities. Creativity in caregivers is also examined. Includes classroom lectures and individualized instruction. D

CHLD 171 Professionalism in Early Childhood Care 1 credit. This course introduces students to professional organizations, networks, community resources, and advocacy. Also including methods of observation and use of observations to plan curriculums. Includes classroom lectures and individualized instruction. D

CHLD 172 Curriculum Planning and Implementation in Early Childhood 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 individualized instruction. D

CHLD 201 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 OR COREQ: ENGL 102, BI 170, and COMM 101. F

CHLD 215 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 OR COREQ: ENGL 102, BI 170, and COMM 101. F

CHLD 220 Administration and Program Management in Early Childhood Care and Education 4 credits. Policies, procedures, personnel management for ECCE programs, including budgeting needs, marketing, and issues of insurance and applicable laws. Implementation of program goals, development of effective personnel supervision and managerial styles, and meeting NAEYC standards. PREREQ: CHLD 210 or CHLD 215. S

CHLD 250 Capstone Project in Early Childhood Care and Education 1 credit. Students will demonstrate, through either a teaching role or an administrative role, their competence in integrating academic skills with early childhood knowledge. PREREQ: Permission of instructor. F, S

CHLD 298 Topics in Early Childhood Care and Education 1-3 credits. Addresses the specific needs of individuals. PREREQ: Permission of instructor. F, S

Electrical Technician

(2 Semesters)
Coordinator/Instructor: Averett

One Technical Certificate in Electrical Technician, one Advanced Technical Certificate and one Associate of Applied Science degree in Industrial Controls, and one Bachelor of Applied Technology (see Instrumentation Technology) are available.

Objectives:
1. To develop entry-level skills in assembling, installing and maintaining electrical systems in residential, industrial and commercial buildings.
2. To train students to follow blueprints to install conduit, wire, circuit breakers, switches, outlets, and electrical components.
3. To provide training in the use of hand tools and various test equipment to repair, replace and maintain motors, electronic controllers and other electrical devices.

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/electricaltechnician.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: Electrical Technician

Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELTY 131</td>
<td>Electrical Theory I</td>
<td>4 cr</td>
</tr>
<tr>
<td>ELTY 132</td>
<td>Electrical Theory II</td>
<td>5 cr</td>
</tr>
<tr>
<td>ELTY 133</td>
<td>Applied Mathematics I</td>
<td>4 cr</td>
</tr>
<tr>
<td>ELTY 134</td>
<td>Applied Mathematics II</td>
<td>5 cr</td>
</tr>
<tr>
<td>ELTY 135</td>
<td>Electrical Laboratory I</td>
<td>4 cr</td>
</tr>
<tr>
<td>ELTY 136</td>
<td>Electrical Laboratory II</td>
<td>5 cr</td>
</tr>
<tr>
<td>ELTY 137</td>
<td>Electrical Code I</td>
<td>3 cr</td>
</tr>
<tr>
<td>ELTY 138</td>
<td>Electrical Code II</td>
<td>3 cr</td>
</tr>
<tr>
<td>ELTY 139</td>
<td>Print Reading</td>
<td>2 cr</td>
</tr>
<tr>
<td>ELTY 140</td>
<td>Motor Control Theory</td>
<td>2 cr</td>
</tr>
<tr>
<td>TGE 151</td>
<td>Technical Writing</td>
<td>2 cr</td>
</tr>
<tr>
<td>TGE 158</td>
<td>Employment Strategies</td>
<td>2 cr</td>
</tr>
</tbody>
</table>

TOTAL: 41 cr

Safety Instruction: Electrical and occupational safety will be presented as part of the laboratory instruction. Safe and proper methods of using tools, meters, and equipment in the lab will be presented. Safety instruction as it pertains to the electrical
occupation will be presented. Safety films, lectures and demonstrations will be used. Safety instruction will be presented throughout the course.

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. The student will then be allowed to repeat the course at the next available program opening.

Advanced Technical Certificate: Industrial Controls

(4 Semesters)

Required Courses:

- ELTY 131 Electrical Theory I 4 cr
- ELTY 132 Electrical Theory II 5 cr
- ELTY 133 Applied Mathematics I 4 cr
- ELTY 134 Applied Mathematics II 5 cr
- ELTY 135 Electrical Laboratory I 4 cr
- ELTY 136 Electrical Laboratory II 5 cr
- ELTY 137 Electrical Code I 3 cr
- ELTY 138 Electrical Code II 3 cr
- ELTY 139 Print Reading 2 cr
- ELTY 140 Motor Control Theory 2 cr
- TGE 151 Technical Writing 2 cr
- TGE 153 Employment Strategies 2 cr
- IC 291 Industrial Controls Theory 8 cr
- IC 292 Industrial Controls Laboratory 5 cr
- INST 296 Process Measurement and Control Theory 10 cr
- INST 297 Process Measurement and Control Laboratory 5 cr

TOTAL: 69 cr

ELTY 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.

ELTY 131 Electrical Theory I 4 credits. Topics discussed are electron theory, sources of electromagnetic force, what is electric current, effect of electricity, magnetism and electromagnetism, putting electricity and magnetism to work, the electric circuit, resistance, resistors, Ohm’s Law, power, D-C parallel circuits, series-parallel circuits, Kirchhoff’s law. F


ELTY 133 Applied Mathematics I 4 credits. Course studies electrical measurement, positive and negative numbers, exponents, powers of ten, formula addition and subtraction, square roots, combining terms, solving algebraic equations, percentages, ratio and proportions. F

ELTY 134 Applied Mathematics II 5 credits. Course studies trigonometry, graphing, instantaneous values, vectors and phasors, Pythagorean theorem, delta and wye connections, and power factor. PREREQ: ELTY 133. S

ELTY 135 Electrical Laboratory I 4 credits. Course topics are shop safety; hand tools; house, commercial, and industrial wiring; voltage sources and measurements. F

ELTY 136 Electrical Laboratory II 5 credits. Course topics are meters, transformers, electric motor controls, manual motor starters, three-phase systems, magnetic line voltage starters, multi-speed controllers, and motor devices. PREREQ: ELTY 135. S

ELTY 137 Electrical Code I 3 credits. Topics include an introduction; definitions; requirements for electrical installation in residential, commercial and industrial buildings. F

ELTY 138 Electrical Code II 3 credits. Course is a continuation of National Electrical Code. PREREQ: ELTY 137. S

ELTY 139 Print Reading 2 credits. Introduction to basic print reading, materials and specifications, and reading prints for residential and commercial structures. F

ELTY 140 Motor Control Theory 2 credits. Introduces basic motor control. Includes two-wire and three-wire control using various pilot devices and motor magnetic controllers. Introduces control relays, time relays, solenoid values, latching relays, and motor control centers. Course of study includes using the computer to draw motor control circuits. PREREQ: ELTY 131 and ELTY 135. S

ELTY 298 Special Topics (variable) 1-8 credits. This course is designed to address 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.

Advanced Technical Certificate: Electromechanical Technology

(4½ Semesters)

Required Courses (see Electron- ices Core section for required Core courses):

- INST 231 Electronics for Instrumentation and Automation 2 cr
- INST 232 Introduction to Fiber and Electro-Optics 2 cr
- INST 233 Fundamentals of Logic Control 2 cr
- INST 234 Applications of Process Control Devices 2 cr
- INST 235 Introduction to Electrical Power Systems 2 cr
- INST 281 Electrical Automation Theory 3 cr
- INST 282 Electrical Automation Lab 5 cr
- ELMT 250 Fundamentals of Mechanical Systems 1 cr
- ELMT 252 Fundamentals of Measurement 1 cr

Objective: To provide students with the skill set to be technicians for the expanding factory automation industry. Graduates from this program will learn in-depth electronics as well as some mechanical, pneumatic and process high vacuum technology. Graduates with have skills needed to work in such areas as semiconduc- tor manufacturing line maintenance, industrial manufacturing concerns and general factory automation of a great many varieties.

Selection of the Electronics option for each accepted student in the Electronic Core curriculum will occur in the second semester. Acceptance into particular options is based upon available openings and other factors such as a grade point average and attendance.

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/electromechanicaltech.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.

All theory classes and laboratory classes to apply these theories require concurrent enrollment. Concurrent enrollment in ELMT 250, 252, 254, 255, 256 and 257 is required.
Associate of Applied Science Degree: Electromechanical Technology

(4½ Semesters)

Required Courses (see Electronics Core section for required Core courses):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INST 231</td>
<td>Electronics for Instrumentation and Automation</td>
<td>2</td>
</tr>
<tr>
<td>INST 232</td>
<td>Introduction to Fiber and Electro-Optics</td>
<td>2</td>
</tr>
<tr>
<td>INST 233</td>
<td>Fundamentals of Logic Control 2</td>
<td>2</td>
</tr>
<tr>
<td>INST 234</td>
<td>Applications of Process Control Devices</td>
<td>2</td>
</tr>
<tr>
<td>INST 235</td>
<td>Introduction to Electrical Power Systems</td>
<td>2</td>
</tr>
<tr>
<td>ELTR 269</td>
<td>Electronic Drafting I</td>
<td>2</td>
</tr>
<tr>
<td>INST 281</td>
<td>Electrical Automation Theory</td>
<td>8</td>
</tr>
<tr>
<td>INST 282</td>
<td>Electrical Automation Lab</td>
<td>5</td>
</tr>
<tr>
<td>ELMT 250</td>
<td>Fundamentals of Mechanical Systems</td>
<td>3</td>
</tr>
<tr>
<td>ELMT 252</td>
<td>Fundamentals of Measurement I</td>
<td>1</td>
</tr>
<tr>
<td>ELMT 254</td>
<td>Foundations and Principles of Robotic Operation</td>
<td>2</td>
</tr>
<tr>
<td>ELMT 255</td>
<td>Electromechanical Systems Lab</td>
<td>3</td>
</tr>
<tr>
<td>ELMT 256</td>
<td>Digital and Analog Devices</td>
<td>2</td>
</tr>
<tr>
<td>ELMT 257</td>
<td>Measurement and Controls</td>
<td>3</td>
</tr>
<tr>
<td>TGE 158</td>
<td>Employment Strategies</td>
<td>2</td>
</tr>
</tbody>
</table>

General Education Requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>English Composition</td>
<td>3</td>
</tr>
<tr>
<td>Goal 3</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>One of Goals 6, 7, 9, 10A, 11, or 12</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL: 83 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. The student will then be allowed to repeat the course at the next available program opening.

Upon successful completion of Electronics (ELTR) 141, Applied Mathematics I, and ELTR 142, Applied Mathematics II, a student may enroll directly into an academic math course which requires MATH 147 as a prerequisite.

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.

Please see descriptions for courses with the ELTR prefix in the Electronics Department section above.

ELMT Courses

ELMT 250 Fundamentals of Mechanical Systems 1 credit. Topics include machine components, brief introduction to mechanical vibrations and kine-matics of machines and devices. Students will participate in laboratory based learning experiences to strengthen and apply the principles taught in this course.
PREREQ: Electronics Core Courses. S

ELMT 252 Fundamentals of Measurement 1 credit. Instrumentation and measurement apparatus. Calibrate, install and troubleshoot sensors measuring such variables as pressure, temperature, mass flow, and displacement.
PREREQ: Electronics Core Courses. S


ELMT 255 Electromechanical Systems Laboratory 3 credits. Apply the principles of robotic control and manipulation. Apply the theories of sensors, controls, and actuators to obtain controlled electromechanical motion.
PREREQ: Electronic Core Courses. S

ELMT 256 Digital and Analog Devices 2 credits. Topics include the application and troubleshooting of the devices, circuits, and systems related to control of electromechanical systems. Projects will include at least the following areas: researching, prototyping, and operating a unit, with oral presentations and written documentation. PREREQ: Electronic Core Courses. S

ELMT 257 Measurement & Controls Laboratory 3 credits. Apply the theories and principles of analog process measurement, analog and digital control, control algorithms, and control loop tuning. PREREQ: Electronic Core Courses. S

ELMT 263 EM Digital Devices and Systems Theory 6 credits. A course of study on the theory, application troubleshooting techniques of solid-state devices used in logic-controlled systems. These principles are applicable to microprocessors and industrial measurement/ control processes. This will include: computers peripheral devices, interfacing, Robotic Arms, machine language, and A-D/D-A conversion methods. F

ELMT 264 EM Digital Devices and Systems Laboratory 6 credits. A hands-on experience in the application and troubleshooting of the devices, circuits, and systems studied in ELMT 263. Student projects will be given and will include at least the following areas: research, prototyping, operating unit, with oral presentations and written documentation. Results of circuit and system testing and troubleshooting will be maintained in written log form. F

ELMT 271 EM Analog Devices and Systems Theory 6 credits. An integrated study of electronics and electromechanical devices and their interrelationships in complex automated systems. Topics discussed will be: semiconductor devices, transducers, electromagnetics devices, mechanical devices and systems such as control, servo, robotic and electromechanical. S

ELMT 272 EM Analog Devices and Systems Laboratory 6 credits. This is a practical application of the theory class, ELMT 271. Assignments in lab will cover the electronic and/or mechanical adjustment, calibration, troubleshooting and repair of automated systems. Each student will prototype and analyze components, sub-systems and complete automated electromechanical systems. All results of experiments will be recorded in written log form in the student’s log notebook. S

ELMT 290 Internship 1-8 credits. On-the-job placement providing work experience for students pursuing careers in Electromechanical Technology. Permission of the instructor is required.

ELMT 298 Special Topics 1-8 credits. This course is designed to address 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. Permission of the instructor is required.

Electronics Department

Chair: Rasmussen
Associate Chair and Assistant Professor: Norton
Program Coordinators and Instructors:
Beaty, K. Buffalo, Slack, Snarr
Instructors: R. Buffalo, Durtschi, Fort, L. Larson, S. Larson, Maclure, Shepherd, Womack

The Electronics Programs are accredited by The National Association of Industrial Technology (NAIT). The primary purpose of the NAIT accreditation is to recognize
the attainment of certain professional goals and standards for Industrial Technology. The secondary purpose is to encourage others to strive toward these goals and standards. Each curricular pattern is reviewed in terms of its stated objectives, content, methods, supporting resources and evaluating systems.

The Department of Electronics administers the following programs, all of which use the Electronics Courses listed below.

- Electromechanical Technology
- Electronic Wireless Telecommunications Technology
- Energy Systems Electrical Engineering Technology
- Energy Systems Instrumentation and Controls Engineering Technology
- Energy Systems Mechanical Engineering Technology
- Energy Systems Wind Engineering Technology
- Laser Electro-Optics Technology
- Instrumentation and Automation Technology
- Robotics and Communication Systems Engineering Technology

The Department’s activities are illustrated and described at http://electronics.isu.edu/.

Upon successful completion of Electronics (ELTR) 141, Applied Mathematics I, and ELTR 142, Applied Mathematics II, a student may enroll directly into an academic math course which requires MATH 147 as a prerequisite.

This program requires students to achieve certain grades in order to advance each semester. Specific information is available in the program’s student handbook.

**Electronics Core Curriculum (35 cr)**

(2 Semesters)

Program Coordinator and Instructor: S. Larson

Instructors: Maclure, Shepherd, Womack


**Objective:** To provide students with skills in the fundamental areas of electronics including soldering, DC analysis, electrical units, Ohm’s Law, series, parallel and series parallel resistive circuits, voltage, current, meters, network theory, AC fundamentals, magnetism, inductors, capacitors, AC-DC network analysis and related algebraic principles. Students will also receive 15 hours per week of related practical laboratory experience to reinforce the theoretical principles discussed above.

All theory classes and laboratory application classes of these theories require concurrent enrollment.

Selection of the Electronics options for each accepted student in the Electronics Core Curriculum will occur in the second semester. Acceptance into particular options is based upon available openings and other factors such as grade point average and attendance.

**Electronics Core Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELTR 141</td>
<td>Applied Mathematics I</td>
<td>4 cr</td>
</tr>
<tr>
<td>ELTR 142</td>
<td>Applied Mathematics II</td>
<td>4 cr</td>
</tr>
<tr>
<td>ELTR 153</td>
<td>Electronic Theory</td>
<td>5 cr</td>
</tr>
<tr>
<td>ELTR 154</td>
<td>Electron Control Devices Theory A</td>
<td>5 cr</td>
</tr>
<tr>
<td>ELTR 155</td>
<td>Electronic Laboratory</td>
<td>5 cr</td>
</tr>
<tr>
<td>ELTR 156</td>
<td>Electron Control Devices Laboratory A</td>
<td>5 cr</td>
</tr>
</tbody>
</table>

**General Education Requirements:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 101</td>
<td>Principles of Speech</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHYS 101, 101L</td>
<td>Elements of Physics, and Lab 4 cr</td>
<td></td>
</tr>
</tbody>
</table>

Upon successful completion of ELTR 141, Applied Mathematics I, and ELTR 142, Applied Mathematics II, a student may enroll directly into an academic math course which requires MATH 147 as a prerequisite.

**Alternate Electronics Core**

Students wishing to enter one of the Electronics options may also receive credit for the Electronics Core by completing the following courses. These courses are designed to allow students the opportunity to take segments of the core curriculum in circumstances where they may already have some competencies resulting from prior courses or work experience. They may also be taken by high school students for dual enrollment credit. Completion of the first 7 courses (ELTR 121 through 127) constitutes equivalency to ELTR 141, ELTR 153, and ELTR 155. Completion of the last four courses (ELTR 133 through 136) constitutes equivalency to ELTR 142, 154 and 156.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELTR 121</td>
<td>Introduction to Electronics Theory</td>
<td>1 cr</td>
</tr>
<tr>
<td>ELTR 122</td>
<td>Introduction to Electronics Lab</td>
<td>1 cr</td>
</tr>
</tbody>
</table>

**ELTR Courses**

ELTR 110 Electronic Terminology 1 credit. The study of basic electronic theory vocabulary. This course is to be taken in conjunction with ENGL 101, the second eight weeks of the semester. It is designed for those students who will opt to pursue a Bachelor of Applied Technology degree after earning an Associate of Applied Science degree. F, S

ELTR 121 Introduction to Electronics Theory 1 credit. Fundamentals of DC electronics—soldering, DC analysis, electrical units, Ohm’s Law, series and parallel resistive circuits, and related algebraic principles. F, S

ELTR 122 Introduction to Electronics Lab 1 credit. Experiments in DC electronic circuits covered in ELTR 121, using electronic components, equipment, and tools. F, S

ELTR 123 DC Electronics Principles Theory 2 credits. Fundamentals of DC electronics—voltage and current, meters, network theorems, and related algebraic principles. F, S

ELTR 124 DC Electronics Principles Lab 2 credits. Experiments in DC electronic circuits analyzing voltage and current, meters, and network theorems. F, S

ELTR 125 AC Electronics Principles Theory 4 credits. Electronics AC fundamentals—magnetism, inductors, capacitors, AC-DC network analysis, and related algebraic principles. F, S

ELTR 126 AC Electronics Principles Lab 2 credits. Experiments in basic AC electronic circuits topics covered in ELTR 125, using electronic components, equipment, and tools to analyze current and voltage. F, S

ELTR 127 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. F, S

ELTR 130 Fundamental Electricity and Electronic Theory 5 credits. Electrical and electronic fundamentals, direct and alternating current circuits, LCR networks, electrical circuit components, meter usage, and test equipment. Includes algebraic and trigonometric topics as they relate to DC and AC circuit analysis. S

ELTR 131 Fundamental Electricity and Electronic Lab 5 credits. Experiments involving subjects covered in ELTR 130. Students will construct experimental circuits upon which
tests and measurements will be made to attain specified objectives. S

ELTR 133 Principles of Control Devices Theory 3 credits. Comprehensive study of semiconductors, power supplies, transistor amplifiers, operational amplifiers, and related algebraic principles. F, S

ELTR 134 Principles of Control Devices Lab 3 credits. Experiments involving semiconductors, power supplies, transistor amplifiers, and operational amplifiers. F, S

ELTR 135 Principles of Digital Devices Theory 2 credits. Digital fundamentals including logic gates, Boolean algebra, combination logic circuits, digital registers, counters, and timing circuits, and related algebraic principles. F, S

ELTR 136 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. F, S

ELTR 140 Directed Study AC-DC/LCR 8 credits. Condensed coverage of basic electronics theory and laboratory and associated mathematics. Accelerated equivalent of ELTR 141, ELTR 143, and ELTR 145 for those who have prior knowledge of basic electronics. F, S

ELTR 141 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

ELTR 142 Applied Mathematics II 4 credits. Continuation of ELTR 141. Selected algebraic and trigonometric topics as related to DC and AC (sine wave) circuit analysis with special emphasis on trigonometric solution and vector analysis. F, S

ELTR 147 Applied Science 4 credits. Study of matter and energy relationships pertaining to motion, mechanics, heat, light, sound, electricity, magnetism and atomic energy. PREREQ: ELTR 141 or Equivalent. This class will be substituted by PHYS 100. F, S

ELTR 153 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: ELTR 141 and ELTR 155. F, S

ELTR 154 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: ELTR 141, ELTR 153, and ELTR 155. COREQ: ELTR 156 and ELTR 142. F, S

ELTR 155 Electronic Lab 5 credits. Experiments involving subjects covered in ELTR 153. Students will construct, measure, and analyze circuits. COREQ: ELTR 153. F, S


ELTR 256 Internship 1-8 credits. On-the-job placement providing work experience for persons pursuing careers in electronics technology. PREREQ: Permission of instructor. D

ELTR 257 Directed Studies 1-8 credits. Individual work under faculty guidance. D

Electronic Wireless/Telecom Technology 4½ Semester Program
Instructors: Larson, Shepherd, Womack

One Advanced Technical Certificate, one Associate of Applied Science Degree and one Bachelor of Applied Science Degree are available.

Objective: To provide students the opportunities to obtain skills for the ever expanding wireless telecommunications fields, including consumer products, RF communications for public radio services, police, fire, utility companies, and cellular, PCS and land mobile services.

Graduates will be able to install, maintain and repair specialized communications equipment including system switching equipment, carrier equipment, and microwave systems. Virtually all non-military areas of the electronic communications industry are addressed. The emphasis of this program is both hands on and theoretical.

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://electronics.isu.edu/elec_wire_teletech.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.

All theory courses require concurrent enrollment in the laboratory courses in which the theories are applied.

Selection of the Electronics option for each accepted student in the Electronic Core curriculum will occur in the second semester. Acceptance into particular options is based on available openings and other factors such as a grade point average and attendance.

Advanced Technical Certificate: Electronic Wireless/Telecom Technology (4½ Semesters)

Required Courses (see Electronics Core section for required Core courses):
- ELTR 269 Electronic Drafting I 2 cr
- EWTT 165 Digital Modulation Schemes for Electronic Communications 5 cr
- EWTT 166 Digital Modulation Schemes for Electronic Communications Lab 5 cr
- EWTT 211 Radio Frequency/Telecom Systems I 7 cr
- EWTT 212 Radio Frequency/Telecom Systems I 7 cr
- EWTT 221 Radio Frequency/Telecom Lab II 6 cr
- EWTT 222 Radio Frequency/Telecom Lab III 3 cr
- EWTT 223 Radio Frequency/Telecom Lab III 3 cr
- TGE 158 Employment Strategies 2 cr

General Education Requirement:
- ENGL 101 English Composition 3 cr

TOTAL: 78 cr

Associate of Applied Science Degree: Electronic Wireless/Telecom Technology (4½ Semesters)

Required Courses (see Electronics Core section for required Core courses):
- ELTR 269 Electronic Drafting I 2 cr
- EWTT 165 Digital Modulation Schemes for Electronic Communications 5 cr
- EWTT 166 Digital Modulation Schemes for Electronic Communications Lab 5 cr
- EWTT 211 Radio Frequency/Telecom Systems I 7 cr
- EWTT 212 Radio Frequency/Telecom Systems I 7 cr
- EWTT 221 Radio Frequency/Telecom Lab II 6 cr
- EWTT 222 Radio Frequency/Telecom Lab III 3 cr
- EWTT 223 Radio Frequency/Telecom Lab III 3 cr
- TGE 158 Employment Strategies 2 cr

General Education Requirements:
- ENGL 101 English Composition 3 cr
- Goal 3 3 cr
- One of Goals 6, 7, 9, 10A, 11 or 12 3 cr

TOTAL: 84 cr

Program length will vary depending on the student’s academic qualifications at the time of acceptance.

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. The student will then be allowed to repeat the course at the next available program opening.

Upon successful completion of Electronics (ELTR) 141, Applied Mathematics I, and ELTR 142, Applied Mathematics II, a student may enroll directly into an academic math course which requires MATH 147 as a prerequisite.

Courses

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 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.

Please see descriptions for courses with the ELTR prefix in the Electronics Department section above.

EWTT Courses

EWTT 165 Digital Modulation Schemes for Electronic Communications 5 credits. The process of digital modulation necessary for current communications systems is a multi-step function involving a variety of signal processing standards for voice, video, and data. Provides understanding of these standards, the North American digital hierarchy, and the various compression/coding techniques utilized in electronic wireless telecommunications industries. PREREQ: Electronics Core Courses. Su

EWTT 166 Digital Modulation Schemes for Electronic Communications Lab 5 credits. Supports the digital modulation theory course with an experiential emphasis. Measurement, testing, and troubleshooting digital transmission signals, with appropriate tools, safety procedures, and appropriate utilization of test equipment to provide a reinforcement of theoretical concepts concurrently covered in EWTT 165. COREQ: EWTT 165. Su

EWTT 211 Radio Frequency and Telecommunications Systems 1 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 EWTT 212. 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. COREQ: EWTT 212. F

EWTT 212 Radio Frequency and Telecommunications 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 EWTT 211. 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. COREQ: EWTT 211. F

EWTT 221 Radio Frequency and Telecommunications Systems II 6 credits. Is a theoretical application of radio frequency/telecommunications circuits, electronic switching/programming and digital data communications utilizing laboratory/experiments developed in EWTT 222. RF/telecommunication test equipment, mobile telephone carrier fundamentals, repeater systems, fiber optic principles, microwave, antennas and transmission line system concepts are emphasized. To be taken first 8 weeks of semester. COREQ: EWTT 222. S

EWTT 221 Radio Frequency/Telecommunications Laboratory II 3 credits. Practical application of radio frequency/telecommunications utilizing EWTT 221 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. To be taken first 8 weeks of semester. COREQ: EWTT 222. S

EWTT 223 Radio Frequency/Telecommunications Laboratory III 3 credits. Continuation of EWTT 222, second 8 weeks of semester, for those not enrolled in EWTT 289 Coop. S

EWTT 289 Coop I-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, employer.

EWTT 290 Internship I-8 credits. On-the-job placement providing work experience for students pursuing careers in radio frequency and/ or telecommunications technology. PREREQ: Permission of instructor.

EWTT 294 Directed Studies I-8 credits. Study tailored to individual assignment and reporting under faculty guidance; permission of instructor required. Students will pursue a unit of activity related to the radio frequency/telecommunications technology field.

EWTT 298 Special Topics I-8 credits. Addresses specific needs of individuals. Will enable the students to upgrade their technical skills through part-time enrollment in units of instruction that are currently available through the program’s full-time pre-employment curriculum. PREREQ: Permission of instructor.

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)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>EMGT 101</td>
<td>Incident Command System Basic</td>
<td>3 cr</td>
</tr>
<tr>
<td>EMGT 110</td>
<td>Leadership and Influence</td>
<td>3 cr</td>
</tr>
<tr>
<td>EMGT 121</td>
<td>Principles of Emergency Management</td>
<td>3 cr</td>
</tr>
<tr>
<td>EMGT 122</td>
<td>Emergency Management</td>
<td>3 cr</td>
</tr>
<tr>
<td>EMGT 221</td>
<td>Emergency Management Operations</td>
<td>3 cr</td>
</tr>
<tr>
<td>EMGT 222</td>
<td>Emergency Planning</td>
<td>3 cr</td>
</tr>
<tr>
<td>EMGT 223</td>
<td>Mitigation for Emergency Managers</td>
<td>3 cr</td>
</tr>
<tr>
<td>EMGT 224</td>
<td>Disaster Response and Recovery</td>
<td>3 cr</td>
</tr>
<tr>
<td>EMGT 225</td>
<td>Emergency Management Exercise Design</td>
<td>3 cr</td>
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</table>

**General Education Courses**  
**(38 credits for Goals 1-12)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>English Composition</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 102</td>
<td>Critical Reading and Writing</td>
<td>3 cr</td>
</tr>
<tr>
<td>COMM 101</td>
<td>Principles of Speech</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 130</td>
<td>Finite Mathematics</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 253</td>
<td>Introduction to Probability</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL 100, 100L</td>
<td>Concepts Biology: Human Concerns, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>CHEM 100</td>
<td>Architecture of Matter</td>
<td>4 cr</td>
</tr>
<tr>
<td>Goal 6 (Fine Arts)</td>
<td></td>
<td>3 cr</td>
</tr>
<tr>
<td>Goal 7 (Literature)</td>
<td></td>
<td>3 cr</td>
</tr>
<tr>
<td>PHIL 103</td>
<td>Introduction to Ethics</td>
<td>3 cr</td>
</tr>
<tr>
<td>HIST 118</td>
<td>History and Culture</td>
<td>3 cr</td>
</tr>
<tr>
<td>AMST 200</td>
<td>Introduction to American Studies</td>
<td>3 cr</td>
</tr>
<tr>
<td>ECON 100*</td>
<td>Economic Issues</td>
<td>3 cr</td>
</tr>
<tr>
<td>POLS 101*</td>
<td>Introduction to American Government</td>
<td>3 cr</td>
</tr>
<tr>
<td>PSYC 101</td>
<td>Introduction to Psychology</td>
<td>3 cr</td>
</tr>
<tr>
<td>SOC 101</td>
<td>Introduction to Sociology</td>
<td>3 cr</td>
</tr>
<tr>
<td>SOC 102</td>
<td>Social Problems</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

*Only one of these courses is required to satisfy goal 11, but both courses are required in this program.

**Emergency Management Courses**

**EMGT 101 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 110 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 121 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 122 Emergency Resources Management 3 credits.** Resource management functions, to include hazardous materials response resources, with the overall framework of an Emergency Operations Center. Performance-based learning activities applicable to the field of emergency management. PREREQ: EMGT 121. D

**EMGT 221 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 121. PREREQ OR COREQ: Goal 4 and Goal 5. D

**EMGT 222 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 121. PREREQ OR COREQ: Goal 4 and Goal 5. D

**EMGT 223 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 121. PREREQ OR COREQ: GOAL 4 and GOAL 5. D

**Energy Systems Electrical Engineering Technology**

4 Semesters

Coordinator and Instructor: Beaty
Instructors: Fort, Larson, Maclure, Shepherd, Womack

An Associate of Applied Science degree and a Bachelor of Applied Science degree in Energy Systems Electrical Engineering Technology are available.

**Objective:** To prepare students for employment as electrical engineering technicians in electrical power generation fields. Electrical generation technologies addressed include nuclear, coal, gas and renewable technologies.

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.
Energy Systems Electrical Engineering Technology
(4 Semesters)

Students must register concurrently for the lab course associated with each theory course.

**Required Courses**

- **ELTR 141**  
  Applied Mathematics I  
  **4 cr**

- **ELTR 142**  
  Applied Mathematics II  
  **4 cr**

- **ELTR 153**  
  Electronic Theory  
  **5 cr**

- **ELTR 154**  
  Electronic Control Devices Theory  
  **5 cr**

- **ELTR 155**  
  Electronic Laboratory  
  **5 cr**

- **ELTR 156**  
  Electronic Control Devices Laboratory  
  **5 cr**

- **ESET 100**  
  Engineering Technology Orientation  
  **1 cr**

- **ESET 101, 101L**  
  Electrical Circuits I, and Lab  
  **10 cr**

- **ESET 102, 102L**  
  Electrical Circuits II, and Lab  
  **8 cr**

- **ESET 203**  
  Fundamentals of Electrical Generation  
  **2 cr**

- **ESET 212**  
  Electrical Systems  
  **4 cr**

- **ESET 230, 230L**  
  Communications Circuits, and Lab  
  **7 cr**

- **ESET 231, 231L**  
  Microcontrollers, and Lab  
  **3 cr**

- **ESET 232, 232L**  
  Electrical Machines, and Lab  
  **6 cr**

- **ESET 233, 233L**  
  Electrical Power Systems, and Lab  
  **6 cr**

- **ESET 235, 235L**  
  Power Electronic Circuits, and Lab  
  **6 cr**

- **TGE 158**  
  Employment Strategies  
  **2 cr**

- **TGE 257**  
  Ethical Issues in Technology  
  **1 cr**

**General Education Requirements**

- **ENGL 101**  
  English Composition  
  **3 cr**

- **COMM 101**  
  Principles of Speech (Goal 2)  
  **3 cr**

- **MATH 253**  
  Introduction to Statistics  
  **3 cr**

- **PHYS 101, 101L**  
  Elements of Physics, and Lab (Goal 4)  
  **4 cr**

- **Goal 6, 7, 9, 10A, 11, or 12**  
  **3 cr**

Total: **74 cr**

*MATH 170 may be substituted for MATH 253.*

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.

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 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.

Once a student successfully completes ELTR 141 and 142, Applied Mathematics I and II, s/he may enroll directly into an academic math course which requires MATH 147 as a prerequisite.

**Energy Systems Electrical Engineering Technology Courses**

**ESET 100 Engineering Technology Orientation 1 credit.** An introduction to the opportunities and responsibilities of an engineering technician. Exposure to the various fields of technology through field trips, movies and guest lectures. Introduction to materials, techniques, and college services, which will assist the student in completing a technology program. F S

**ESET 101 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. F S

**ESET 101L Electrical Circuit Laboratory 5 credits.** Electrical circuits are analyzed, designed and constructed using various DC and AC theories and electrical quantities are measured using appropriate test equipment. F S

**ESET 102 Electrical Circuits II 4 credits.** Continuation of electrical circuit study introducing the fundamentals of semiconductors, amplifier theory, digital logic and logical devices. S

**ESET 102L Electrical Circuits Laboratory 4 credits.** Laboratory applications and experiments in troubleshooting of semiconductor devices and circuits, digital logic and logic device application. S

**ESET 230 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. F

**ESET 230L 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. F

**ESET 231 Microcontrollers 2 credits.** Principles of microcontroller and programmable controller programming including I/O devices and integration of process control principles. F

**ESET 231L Microcontrollers Laboratory 1 credit.** Applications of microcontroller and programmable controller programming including I/O device connections and interface to final elements of process control. F

**ESET 232 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 electromechanical transducers. F

**ESET 232L Electrical Machines Laboratory 3 credits.** Laboratory applications of electrical machines including, testing, evaluation and industry best practices for installation and troubleshooting. F

**ESET 233 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. S

**ESET 233L Electrical Power Systems Laboratory 3 credits.** Applications and laboratory studies of power network principles, equipment application and device evaluation. S

**ESET 235 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. S

**ESET 235L 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. S

**Energy Systems Instrumentation and Controls Engineering Technology**

Coordinator and Instructor: Beaty

Instructors: Larson, Maclure, Shepherd, Womack

An Associate of Applied Science degree and a Bachelor of Applied Science degree in Energy Systems Instrumentation and Controls Engineering Technology are available.

**Objective:**

To prepare students for employment as Instrumentation and Controls engineering technicians in electrical power generation fields. Electrical generation technologies addressed include nuclear, coal, gas and renewable technologies.
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 Applied Science Degree:**

**Energy Systems Instrumentation and Controls Engineering Technology**

(4½ Semesters)

**Required Courses:**

Students must register concurrently for the lab course associated with each theory course.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESET 200</td>
<td>Applications of Electronic, Electrical, and Power Systems Control Fundamentals and Safety</td>
<td>5 cr</td>
</tr>
<tr>
<td>ESET 201</td>
<td>Electronics for Instrumentation and Control</td>
<td>2 credits</td>
</tr>
<tr>
<td>ESET 202</td>
<td>Introduction to Fiber and Electro-Optics</td>
<td>2 credits</td>
</tr>
<tr>
<td>ESET 203</td>
<td>Fundamentals of Electrical Generation</td>
<td>2 credits</td>
</tr>
<tr>
<td>ESET 204</td>
<td>Process Control Devices</td>
<td>2 credits</td>
</tr>
<tr>
<td>ESET 205</td>
<td>Fundamentals of Control Logic</td>
<td>2 credits</td>
</tr>
</tbody>
</table>

**General Education Requirements:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>English Composition</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHYS 101</td>
<td>Fundamentals of Physics, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>COMM 201</td>
<td>Principles of Speech (Goal 2)</td>
<td>3 cr</td>
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<tr>
<td>Goal 3</td>
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<td>3 cr</td>
</tr>
<tr>
<td>One of Goals 6, 7, 9, 10A, 11 or 12</td>
<td>3 cr</td>
<td></td>
</tr>
<tr>
<td>TOTAL: 78 cr</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.

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 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.

Once a student successfully completes ELTR 141 and 142, Applied Mathematics I and II, s/he may enroll directly into an academic math course which requires MATH 147 as a prerequisite.

**Energy Systems Instrumentation and Controls Engineering Courses**

- **ESET 200 Applications of Electronic, Electrical, and Power Systems Control Fundamentals and Safety 5 credits.** Overview and application of electronic sensors, thyristor power control circuits, and networks. Electrical motor control, relays, timers, PLCs, and computer software used to design and verify motor control circuits. Basic process control print reading and device calibration methods. Includes troubleshooting techniques and safety practices. Su

- **ESET 201 Electronics for Instrumentation and Control 2 credits.** Electronic theory and laboratory addressing the components, functions, and configurations of power, multistage differential and operational amplifiers, oscillators, thyristors, power control and regulation circuits, sensors, and networks. Laboratory based learning experiences strengthen principles. PREREQ: Electronics Core courses or permission of instructor. Su

- **ESET 202 Introduction to Fiber and Electro-Optics 2 credits.** Fundamental physics of fiber/electro-optics, electro-optical spectrum, EO detectors, and arrays, IR sources, IR optical systems, light transmission/propagation, non-linear optics, laser bandwidth, power supplies, optical fibers, fiber installation, testing, and maintenance. Lecture/Laboratory. PREREQ: Electronics Core courses or permission of instructor. Su

- **ESET 203 Fundamentals of Electrical Generation 2 credits.** Introduction to generator and prime mover principles covering major sources of utility generation. PREREQ: Electronics Core courses or permission of instructor. Su

- **ESET 204 Process Control Devices 2 credits.** Electronic control device theory and laboratory including sensors, device communication, controller fundamentals, control loops and loop tuning, device and system calibration and diagnostics, heat transfer, fluid flow, and refrigeration control. PREREQ: Electronics Core courses or permission of instructor. Su

- **ESET 205 Fundamentals of Control Logic 2 credits.** Introduction to control logic, relay logic principles, electronics in logic, logic and control drawings, fundamentals of programmable logic controllers (PLCs), and electrical automation concepts. Lecture/Laboratory. PREREQ: Electronics Core courses or permission of instructor. Su

- **ESET 206 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: Electronics Core courses or permission of instructor. Su

- **ESET 210 Principles of Power 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: Electronics/Controls courses or permission of instructor. F

- **ESET 211 Sensors and Control Devices 2 credits.** Theory and application of control devices, sensors, timers, relays. PREREQ: Electronics Core courses or permission of instructor. F

- **ESET 212 Electrical Systems Documentation and Standards 2 credits.** Introduction to print reading, technical specifications, print annotation, report writing and Electrical codes. PREREQ: Electronics Core courses or permission of instructor. F

- **ESET 213 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 switch-boards and electrical distribution systems. PREREQ: Electronics Core courses or permission of instructor. F

- **ESET 214 Motor Control Laboratory 1 credit.** Applications of AC and DC motor control theory and motor protection systems. PREREQ: Electronics Core courses or permission of instructor. F

- **ESET 215 Controller Laboratory 1 credit.** Applications of Programmable Logic Controls and DCS including I-O configuration, Ladder logic design and function block use. PREREQ: Electronics Core courses or permission of instructor. F

- **ESET 216 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: Electronics Core courses or permission of instructor. F

- **ESET 217 Motor, Generator and Electrical Systems Laboratory 2 credits.** Installation, setup, control, maintenance, and troubleshooting of AC and DC motors, electrical device installations and industrial safety and proper tool usage. PREREQ: Electronics Core courses or permission of instructor. F

- **ESET 218 Discrete Control Systems 2 credits.** Discrete control concepts of power system operation including motor operated valve control, turbine sequencing and electrical system protection. PREREQ: Electronics Core courses or permission of instructor. F
ESET 220 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: Electronics Core courses or permission of instructor. F

ESET 221 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: Electronics Core courses or permission of instructor. S

ESET 222 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: Electronics Core courses or permission of instructor. S

ESET 223 Digital Control Theory 2 credits. Digital systems, digital control, analog-to-digital and digital-to-analog interfacing, signal conditioning, programmable controllers, computer applications. PREREQ: Electronics Core courses or permission of instructor. S

ESET 224 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 measurements, mass flow, humidity and PH measurements. PREREQ: Electronics Core courses or permission of instructor. S

ESET 225 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: Electronics Core courses or permission of instructor. S

ESET 226 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: Electronics Core courses or permission of instructor. S

ESET 227 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: Electronics Core courses or permission of instructor. S

ESET 228 Measurements Laboratory 1 credit. Calibration of transmitters, simulation of process variables, temperature, pressure, level flow, and humidity control loops. PREREQ: Electronics Core courses or permission of instructor. S

ESET 230 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. F

ESET 230L 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. F

ESET 231 Microcontrollers 2 credits. Principles of microcontroller and programmable controller programming including I/O devices and integration of process control principles. F

ESET 231L Microcontrollers Laboratory 1 credit. Applications of microcontroller and programmable controller programming including I/O device connections and interface to final elements of process control. F

ESET 232 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 electromechanical transducers. F

ESET 232L Electrical Machines Laboratory 3 credits. Laboratory applications of electrical machines including testing, evaluation and industry best practices for installation and troubleshooting. F

ESET 233 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. S

ESET 233L Electrical Power Systems Laboratory 3 credits. Applications and laboratory studies of power network principles, equipment application and device evaluation. S

ESET 235 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. S

ESET 235L 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. S

ESET 290 Energy Systems Theory 18 credits. Theory in application of energy systems control devices, sensors, timers, relays, programmable controllers, electrical code, print reading, single phase, split phase, three phase and variable frequency motor control, and interfacing with devices used in automated electrical power generation facilities. COREQ: ESET 290L. F

ESET 290L Energy Systems 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, and adapting relay logic circuits to programmable controllers. COREQ: ESET 290. F

ESET 291 Energy Systems Theory II 7 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 291L. S


ESET 298 Independent Study 1-8 credits. Study tailored to individual assignment and reporting under faculty guidance. Student will pursue a unit of activity related to electrical power generation. PREREQ: Permission of instructor. S

Energy Systems
Mechanical Engineering Technology

4 Semesters

Coordinator and Instructor: Beaty
Instructors: Larson, McClure, Shepherd, Womack
One Associate of Applied Science degree and one Bachelor of Applied Technology degree are available.

Objective:
To prepare students for employment as mechanical engineering technicians in electrical power generation fields. Electrical generation technologies addressed include nuclear, coal, gas, and renewable technologies.

Acceptance is based upon available openings and other factors such as grade point average and attendance.

For a Program Information Packet, visit http://www.isu.edu/echtch/programs.shtml, which leads to descriptions of each program in general, course descriptions, lists of course sequences, and a 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 Applied Science Degree: Energy Systems Mechanical Engineering Technology

4 Semesters

Students must register concurrently for the lab course associated with each theory course.

Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESET 120, 120L</td>
<td>Introduction to Energy Systems, and Lab</td>
<td>3 cr</td>
</tr>
<tr>
<td>ESET 121, 121L</td>
<td>Basic Electricity and Electronics, and Lab</td>
<td>8 cr</td>
</tr>
<tr>
<td>ESET 122, 122L</td>
<td>Electrical System and Motor Control Theory, and Lab</td>
<td>3 cr</td>
</tr>
<tr>
<td>ESET 123, 123L</td>
<td>Mechanical Power Transmission, and Lab</td>
<td>7 cr</td>
</tr>
<tr>
<td>ESET 124</td>
<td>Mechanical System and Machine Design</td>
<td>2 cr</td>
</tr>
<tr>
<td>ELTR 141</td>
<td>Applied Mathematics I</td>
<td>4 cr</td>
</tr>
<tr>
<td>ELTR 142</td>
<td>Applied Mathematics II</td>
<td>4 cr</td>
</tr>
<tr>
<td>ESET 240, 240L</td>
<td>Pumps, and Pump Applications Laboratory</td>
<td>7 cr</td>
</tr>
<tr>
<td>ESET 241, 241L</td>
<td>Valves, and Valve Laboratory</td>
<td>6 cr</td>
</tr>
<tr>
<td>ESET 242</td>
<td>Process Measurement for Mechanical Engineering</td>
<td>2 cr</td>
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<tr>
<td>ESET 243, 243L</td>
<td>Fluid and Pneumatic Power and Lab</td>
<td>5 cr</td>
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<tr>
<td>ESET 244</td>
<td>Rotating Equipment Maintenance</td>
<td>4 cr</td>
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<tr>
<td>ESET 244L</td>
<td>Machine Alignment</td>
<td>3 cr</td>
</tr>
<tr>
<td>ESET 245</td>
<td>Fundamentals of Heat Exchangers</td>
<td>2 cr</td>
</tr>
<tr>
<td>ESET 246</td>
<td>Metals and Metallurgy</td>
<td>2 cr</td>
</tr>
<tr>
<td>ESET 248</td>
<td>Independent Study</td>
<td>1-8 cr</td>
</tr>
<tr>
<td>MATH 253*</td>
<td>Introduction to Statistics</td>
<td>3 cr</td>
</tr>
<tr>
<td>TGE 158</td>
<td>Employment Strategies</td>
<td>2 cr</td>
</tr>
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General Education Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>ENGL 101</td>
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<td>3 cr</td>
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<tr>
<td>COMM 101</td>
<td>Principles of Speech</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHYS 101, 101L</td>
<td>Elements of Physics, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>Goal 6, 7, 9, 10A, 11, or 12</td>
<td></td>
<td>3 cr</td>
</tr>
<tr>
<td>Total 81-88 cr *MATH 170 may be substituted for MATH 253.</td>
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</tbody>
</table>

** Of the 16 credits of General Education coursework required for the degree, 13 credits are part of the required curriculum.

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.

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 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.

Once a student successfully completes ELTR 141 and 142, Applied Mathematics I and II, s/he may enroll directly into an academic math course which requires MATH 147 as a prerequisite.

Courses

Required courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ESET 120</td>
<td>Introduction to Energy Systems 2 credits</td>
<td></td>
</tr>
<tr>
<td>ESET 121</td>
<td>Basic Electricity and Electronics 4 credits</td>
<td></td>
</tr>
<tr>
<td>ESET 122</td>
<td>Fluid and Pneumatic Power and Lab 5 credits</td>
<td></td>
</tr>
<tr>
<td>ESET 124</td>
<td>Rotating Equipment Maintenance 4 credits</td>
<td></td>
</tr>
<tr>
<td>ESET 125</td>
<td>Fluid and Pneumatic Power Laboratory 4 credits</td>
<td></td>
</tr>
<tr>
<td>ESET 126</td>
<td>Electrical Systems and Motor Control Theory 2 credits</td>
<td></td>
</tr>
<tr>
<td>ESET 127</td>
<td>Electrical Systems and Motor Control Theory Laboratory 1 credit</td>
<td></td>
</tr>
<tr>
<td>ESET 128</td>
<td>Mechanical Power Transmission 3 credits</td>
<td></td>
</tr>
<tr>
<td>ESET 129</td>
<td>Mechanical Power Transmission Laboratory 4 credits</td>
<td></td>
</tr>
</tbody>
</table>

Optional courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ESET 120L</td>
<td>Introduction to Energy Systems Laboratory 1 credit</td>
<td></td>
</tr>
<tr>
<td>ESET 121L</td>
<td>Basic Electricity and Electronics Laboratory 4 credits</td>
<td></td>
</tr>
<tr>
<td>ESET 122L</td>
<td>Fluid and Pneumatic Power Laboratory 4 credits</td>
<td></td>
</tr>
<tr>
<td>ESET 123L</td>
<td>Electrical Systems and Motor Control Theory Laboratory 1 credit</td>
<td></td>
</tr>
<tr>
<td>ESET 124L</td>
<td>Mechanical Power Transmission Laboratory 4 credits</td>
<td></td>
</tr>
</tbody>
</table>

Course descriptions:

- **ESET 120 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 120L.

- **ESET 121 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 121L.

- **ESET 122 Fluid and Pneumatic Power Laboratory 5 credits.** Laboratory exercises in the maintenance and function of selected power plant process equipment, primary process equipment, and their sub-components. COREQ: ESET 120.

- **ESET 124 Rotating Equipment Maintenance 4 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 121 and ESET 121L or permission of instructor. COREQ: ESET 122.

- **ESET 125 Fluid and Pneumatic Power Laboratory 4 credits.** Fluid and pneumatic power mechanics with an emphasis on symbology, circuit operation and design, pneumatic and hydraulic component operation, and terminology. PREREQ: ESET 123 and ESET 123L or permission of instructor. COREQ: ESET 241.

- **ESET 126 Electrical Systems and Motor Control Theory Laboratory 1 credit.** Application of electrical systems and motor controls. PREREQ: ESET 121 and ESET 121L or permission of instructor. COREQ: ESET 122.

- **ESET 127 Mechanical Power Transmission 3 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 121 and ESET 121L or permission of instructor. COREQ: ESET 123.

- **ESET 128 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 121 and ESET 121L or permission of instructor. COREQ: ESET 123.

College of Technology
used in the alignment process. Includes use of dial indicators and electronic and laser measuring devices. PREREQ: ESET 124 or permission of instructor.

ESET 245 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.

ESET 246 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.

**Energy Systems Wind Engineering Technology**

4 Semesters

Coordinator and Instructor: Beatty
Instructors: Larson, McClure, Shepherd, Womack

One Associate of Applied Science Degree and one Bachelor of Applied Technology degree are available.

Objective:

Provide students with information regarding basic safety principles in the Wind Energy industry. A brief overview of the Occupational Safety and Health Administration (OSHA) will be discussed. The primary focus will be on OSHA regulations and standards that pertain to the construction and maintenance of wind turbines and the energy industry. Acceptance is based upon available openings and other factors such as grade point average and attendance.

For a Program Information Packet, visit [http://www.isu.edu/ctech/programs.shtml](http://www.isu.edu/ctech/programs.shtml), which leads to descriptions of each program in general, course descriptions, lists of course sequences, and a cost of books, tools, uniforms, fees, and other expenses.

[http://www.isu.edu/ctech/programs.shtml](http://www.isu.edu/ctech/programs.shtml), which leads to descriptions of each program in general, course descriptions, lists of course sequences, and a 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 Applied Science Degree:**

**Energy Systems Wind Engineering Technology**

(4 semesters)

Students must register concurrently for the lab course associated with each theory course.

**Required Courses:**

- ESET 121, 121L Basic Electricity and Electronics, and Lab 8 cr
- ESET 150, 150L Introduction to Wind Energy Systems, and Lab 3 cr
- ESET 122, 122L Electrical System and Motor Control Theory, and Lab 2 cr
- ESET 123, 123L Mechanical Power Transmission, and Lab 7 cr
- ELTR 141 Applied Mathematics I 4 cr
- ELTR 142 Applied Mathematics II 4 cr
- ESET 212 Electrical Systems Documentation and Standards 2 cr
- ESET 231, 231L Microcontrollers, and Lab 3 cr
- ESET 232, 232L Electrical Machines, and Lab 6 cr
- ESET 233, 233L Electrical Power System 6 cr
- ESET 240, 240L Pumps, and Pump Applications Lab 7 cr
- ESET 243, 243L Fluid and Pneumatic Power and Lab 5 cr
- ESET 247, 247L Wind Energy Control Systems, and Lab 3 cr
- ESET 298 Independent Study 1-8 cr
- TGE 158 Employment Strategies 2 cr
- MATH 253 Introduction to Statistics 3 cr

**General Education Requirements**

- ENGL 101 English Composition 3 cr
- COMM 101 Principles of Speech 3 cr
- PHYS 101, 101L Elements of Physics, and Lab 4 cr
- Goal 6, 7, 9, 10A, 11, or 12 3 cr

Total 80-88 cr

*MATH 170 may be substituted for MATH 253.

**Of the 16 credits of General Education coursework required for the degree, 13 credits are part of the required curriculum.

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.

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 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.

Once a student successfully completes ELTR 141 and 142, Applied Mathematics I and II, s/he may enroll directly into an academic math course which requires MATH 147 as a prerequisite.

**Courses**

- ESET 150 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 150L.
- ESET 150L Introduction to Wind Energy Systems Laboratory 1 credit. Wind energy applications and basic operating principles. Laboratory exercises in maintenance and function of selected wind power systems and process. COREQ: ESET 150.
- ESET 212 Electrical System Documentation and Standards 2 credits. Introduction to print reading, technical specifications, print annotation, report writing, and electrical codes.
- ESET 247 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 their management and planning. PREREQ: ESET 231 and ESET 231L or permission of Instructor. COREQ: ESET 247L.
- ESET 247L Wind Energy Control Systems Laboratory 1 credit. Applications measurement and control of mechanical and electrical systems used in wind energy. PREREQ: ESET 231 and ESET 231L or permission of Instructor. COREQ: ESET 247.

**Fire Services Administration**

Coordinator: Mikitish

One Associate of Applied Science degree (which requires 69 credits) is 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.

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 will be met with the following recommended courses (38 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 100</td>
<td>Concepts Biology</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 100</td>
<td>Architecture of Matter</td>
<td>4</td>
</tr>
<tr>
<td>COMM 101</td>
<td>Principles Speech</td>
<td>3</td>
</tr>
<tr>
<td>ECON 100</td>
<td>Economic Issues</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 101</td>
<td>English Composition</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 102</td>
<td>Critical Reading and Writing</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 103</td>
<td>Introduction to Ethics</td>
<td>3</td>
</tr>
<tr>
<td>POLS 101</td>
<td>Introduction to American Government</td>
<td>3</td>
</tr>
</tbody>
</table>

Choose one course from each of the following four sets (12 cr):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMST 200</td>
<td>Introduction to American Studies</td>
<td>3</td>
</tr>
</tbody>
</table>

HIST 118    | U.S. History and Culture             | 3       |
MATH 130    | Finite Mathematics                  | 3       |
MATH 253    | Introduction to Statistics           | 3       |
SOC 102     | Social Problems                     | 3       |
SOC 101     | Introduction to Sociology            | 3       |
PSYC 101    | Introduction to General Psychology   | 3       |

1 course from Goal 6

1 course from Goal 7

Fire Services Administration Core Courses (12 lower division credits*)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSA 101</td>
<td>Building Construction for Fire Protection</td>
<td>2</td>
</tr>
<tr>
<td>FSA 102</td>
<td>Fire Behavior and Combustion</td>
<td>2</td>
</tr>
<tr>
<td>FSA 103</td>
<td>Fire Prevention and Education</td>
<td>2</td>
</tr>
<tr>
<td>FSA 104</td>
<td>Fire Protection Hydraulics and Water Supply</td>
<td>2</td>
</tr>
<tr>
<td>FSA 105</td>
<td>Fire Protection Systems</td>
<td>2</td>
</tr>
<tr>
<td>FSA 106</td>
<td>Principles of Emergency Service</td>
<td>2</td>
</tr>
</tbody>
</table>

Fire Services Administration Non-Core Courses (4 credits*)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSA 201</td>
<td>Fire Administration</td>
<td>2</td>
</tr>
<tr>
<td>FSA 202</td>
<td>Legal Aspects of the Emergency Services</td>
<td>2</td>
</tr>
</tbody>
</table>

Emergency Medical Technician Basic Courses (15 credits)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 110, CIS 111</td>
<td>Introduction to Computer Systems</td>
<td>3</td>
</tr>
<tr>
<td>BI 170</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>CSDT 181</td>
<td>Computer Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>EMTB 119</td>
<td>Fundamentals of Emergency Medical Care</td>
<td>4</td>
</tr>
<tr>
<td>EMTB 119L</td>
<td>Fundamentals of Emergency Medical Care</td>
<td>1</td>
</tr>
<tr>
<td>EMTB 120</td>
<td>Emergency Department Clinicals</td>
<td>2</td>
</tr>
<tr>
<td>EMTB 121</td>
<td>EMS Field Practicum</td>
<td>2</td>
</tr>
</tbody>
</table>

FSA 104 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 105 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 106 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 201 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 202 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

Geomatics Technology

Program Coordinator and Associate Professor: Bajracharya
Instructor: Leavitt
A Bachelor of Science degree in Geomatics Technology is available.

Program Objectives

Graduates of the Geomatics Technology program:

1. Have acquired basic math and science knowledge and Technical skills of Geomatics Technology discipline to enter career in boundary surveying, route and construction surveying, survey adjustments, Global Positioning System (GPS), photogrammetry, geodesy, and land/geographic information systems.

2. Possess supervisory level ability to professionally execute Geomatics project activities for delivery in response to the need of the private and public industry.

3. Have appropriate understanding of standard and specification of Geomatics practices in analyzing positional
accuracy of measurement system and in preparing land records and plats by meeting legal requirements.

4. Are qualified to take the state board’s Fundamentals of Surveying exam, and after gaining experience, are qualified to take the professional surveying license exam with an understanding of continued life long 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.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.

Bachelor of Science Degree: Geomatics Technology

The following courses are required for a Bachelor of Science Degree.

Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CET/GEMT 111</td>
<td>Drawing with CAD</td>
<td>3 cr</td>
</tr>
<tr>
<td>CET/GEMT 112</td>
<td>Beginning Surveying</td>
<td>5 cr</td>
</tr>
<tr>
<td>CET/GEMT 121</td>
<td>Civil Engineering Tech Drafting</td>
<td>3 cr</td>
</tr>
<tr>
<td>CET/GEMT 122</td>
<td>Intermediate Surveying</td>
<td>5 cr</td>
</tr>
<tr>
<td>CET/GEMT 212</td>
<td>Route Survey, Design and State Plane Coordinates</td>
<td>10 cr</td>
</tr>
<tr>
<td>CET/GEMT 224</td>
<td>Land and Construction Surveys</td>
<td>10 cr</td>
</tr>
<tr>
<td>ENGL 102</td>
<td>English Composition</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 147</td>
<td>Precalculus</td>
<td>5 cr</td>
</tr>
<tr>
<td>MATH 175</td>
<td>Calculus II</td>
<td>4 cr</td>
</tr>
<tr>
<td>GEMT 310</td>
<td>Surveying Law and Boundary Description</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEMT 311</td>
<td>Advanced Surveying</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEMT 312</td>
<td>Public Land Surveying</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEMT 313</td>
<td>Surveying Software Applications</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEMT 314</td>
<td>Research and Evidence in Surveying</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEMT 315</td>
<td>Surveying Adjustments and Coordinate Systems</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEMT 317</td>
<td>Subdivision Planning and Platting</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEMT 411</td>
<td>Geodesy</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEMT 413</td>
<td>Land Information System</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEMT 415</td>
<td>Survey Office Practice</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEMT 420</td>
<td>Surveying Project I</td>
<td>1 cr</td>
</tr>
<tr>
<td>GEMT 421</td>
<td>Surveying Project II</td>
<td>2 cr</td>
</tr>
<tr>
<td>GEMT 425</td>
<td>Principles of Cartography</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEMT 430</td>
<td>GPS Principles and Applications</td>
<td>3 cr</td>
</tr>
<tr>
<td>GEMT 432</td>
<td>Principles of Photogrammetry</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 101</td>
<td>English Composition</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

GEMT Courses

GEMT 111 Drawing with CAD 3 credits.

A basic study of mechanical drawing with computer-aided drafting emphasis. Instructional units include icon uses with layers, line types and colors, editing drawings, coordinate usage, polylines, isoview text, hatching, dimensioning, multiview and layout. Cross-listed as CET 111.

GEMT 112 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. Cross-listed as CET 112.

GEMT 121 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 drafting. Computer-aided-drafting (CAD) is used for drawings. Cross-listed as CET 121.

GEMT 122 Intermediate Surveying 5 credits.

Study of survey of land, traverses and closures, bearings, coordinates, construction surveying and staking. Control for surveys, topography surveying and mapping using calculators and coordinate geometry (COGO) to solve surveying problems. Introduction to data collection. Produce survey drawings with TDS COGO. Cross-listed as CET 122.

GEMT 212 Route Survey and Design and State Plane Coordinates 10 credits.

Studies route surveying; circular, spiral, and parabolic curves as applied to highway design; route locations, plans, and specifications; Idaho state plane coordinate system, resections and radial surveying. Uses CAD and survey software; produces maps on plotters. Cross listed as CET 212.

GEMT 224 Land and Construction Surveys 10 credits.

Advanced study of surveying topics including the Public Lands Survey System, land divisions and descriptions, and construction staking procedures. Construction staking of roadway project using computer software and data collector. Basic GPS theory and operation in surveying practices. Cross-listed as CET 224.

GEMT 310 Surveying Law and Boundary Descriptions 3 credits.

Riparian and littoral rights, ownership, transfer and writing of legal description, boundary law, presumptions, easements and reversions, sequential and simultaneous conveyances, case studies, brief history of public land surveys, state laws, rules for practicing surveying, ALTA survey. PREREQ: GEMT junior status or permission of instructor.

GEMT 311 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/GEMT 224.

GEMT 312 Public Land Surveying 3 credits.


GEMT 313 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, DTM and contours creation; calculation of volumes and basic road design and layout. PREREQ: CET/GEMT 224 or permission of instructor.

GEMT 314 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/GEMT 224.

GEMT 315 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 170, MATH 253 and CET/GEMT 224.

GEMT 317 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 313 and GEMT 315.

GEMT 400 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 in Civil Engineering Technology, Civil Engineering, or industry experience. Graded S/U. F, S.

GEMT 411 Geodesy 3 credits.

Introduces geometry of ellipsoid, reference coordinate
GEMT 498 Special Topics 1-3 credits. Designed for creative problem solving and for integrating techniques into geomatics. Topics chosen depend upon student’s interest or specific need of individuals in the area of surveying, mapping, geodetic surveying, boundary surveying, geodesy, remote sensing, cartography, and photogrammetry. PREREQ: Permission of instructor. D

Advanced Technical Certificate: Graphic Arts/Printing Technology

3 to 4½ Semesters
Program Coordinator/Instructor: Hawk
Instructor: O’Neil

Two Advanced Technical Certificates, one Associate of Applied Science Degree and one Bachelor of Applied Science Degree are available.

Objective: To prepare graduates for careers in the graphic communications profession through classroom and practical applications to include: digital imaging, press operations, applications for reproduction photography, bindery, pre-press operations, and other customer oriented activities in a live-work learning environment.

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/etech/graphicarts.shtml.

Advanced Technical Certificate: Graphic Arts-Desktop Publishing/Print Media

(3 Semesters)

Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GART 121</td>
<td>Introduction to Graphic Arts</td>
<td>2 cr</td>
</tr>
<tr>
<td>GART 123</td>
<td>Finishing Binding</td>
<td>1 cr</td>
</tr>
<tr>
<td>GART 124</td>
<td>Printing Mathematics</td>
<td>2 cr</td>
</tr>
<tr>
<td>GART 127</td>
<td>Beginning Press Operations</td>
<td>2 cr</td>
</tr>
<tr>
<td>GART 129</td>
<td>Beginning Desktop Publishing/Print Media</td>
<td>6 cr</td>
</tr>
<tr>
<td>GART 130</td>
<td>Intermediate Desktop</td>
<td>7 cr</td>
</tr>
<tr>
<td>GART 132</td>
<td>Advanced Desk Public/Print Media</td>
<td>6 cr</td>
</tr>
<tr>
<td>GART 135</td>
<td>Graphic Arts Production</td>
<td>8 cr</td>
</tr>
<tr>
<td>GART 136</td>
<td>Digital Imposition</td>
<td>6 cr</td>
</tr>
<tr>
<td>TGE 151</td>
<td>Technical Writing</td>
<td>2 cr</td>
</tr>
</tbody>
</table>

GART 121  Introduction to Graphic Arts 2 cr
GART 123  Finishing Binding 1 cr
GART 124  Printing Mathematics 2 cr
GART 127  Beginning Press Operations 5 cr
GART 129  Beginning Desktop Publishing/Print Media 6 cr
GART 130  Intermediate Desktop 7 cr
GART 132  Advanced Desktop Publishing/Print Media 6 cr
GART 135  Graphic Arts Production 8 cr
GART 136  Digital Imposition 6 cr
TGE 151  Technical Writing 2 cr
Associate of Applied Science Degree: 
Graphic Design in Print Media 
(4½ Semesters) 

Required Courses: 
GART 121 Introduction to Graphic Arts 2 cr 
GART 123 Finishing Binding 1 cr 
GART 124 Printing Mathematics 2 cr 
GART 127 Beginning Press Operations 5 cr 
GART 129 Beginning Desktop Publishing/Print Media 6 cr 
GART 130 Intermediate Desktop Publishing/Print Media 6 cr 
GART 132 Advanced Desktop Publishing/Print Media 7 cr 
GART 135 Graphic Arts Production 8 cr 
GART 136 Digital Imposition 6 cr 
GART 138 Introduction to Design/Print Media 7 cr 
GART 139 Digital Design Techniques and Emerging Technology 6 cr 
GART 140 Advanced Digital Design and Multiple Media 7 cr 
TGE 158 Employment Strategies 2 cr 

GART Courses 

This program uses a cohort admission policy; enrollment in any course requires instructor permission. Based on keyboarding skills, students may be required to take a 1 credit Keyboarding class in order to meet the competencies of the program. 

GART 121 Introduction to Graphic Arts 2 credits. Introduction to the graphic arts industry, including procedures and processes required to produce a printed job from start to finish. D 

GART 123 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. D 

GART 124 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. 

GART 127 Beginning Press Operation 5 credits. Produce single color printed material on small offset presses. D 

GART 128 Intermediate Press Operation 7 credits. Complex small offset press work to produce multicolor printing requiring close register. D 

GART 129 Beginning Desktop Publishing/Print Media 6 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. D 

GART 130 Intermediate Desktop Publishing/Print Media 7 credits. Produce artwork for print production using graphic manipulation software. Theory for design, color, and digital imaging combined with typography skills. D 

GART 131 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. D 

GART 132 Advanced Desktop Publishing/Print Media 6 credits. Advanced training in more complex desktop publishing and electronic graphic applications. D 

GART 135 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. D 

GART 136 Digital Imposition 6 credits. Termology, materials, equipment, and methods used in manual and digital imposition. File formats, fonts, imposition, trapping, screen angling, Preflight, PostScript output, imagesetting equipment, proofing, and platemaking. D 

GART 137 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. D 

GART 138 Introduction to Design/Print Media 7 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, Su. 

GART 139 Digital Design Techniques and Emerging Technologies 6 credits. Digital application of design techniques. Using design in collaborative marketing packages and displays. Study of emerging technologies and trends in the graphic communications industry. F, S, Su 


GART 298 Independent Study 1-8 credits. Faculty-supervised individual study to upgrade skills in graphic arts and/or printing technology. 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. One Medical Transcription Certificate 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. 

Post-Secondary Technical Certificate: 
Medical Transcription 
(2 Semesters) 

This program will provide students with the skills and knowledge to transcribe (type)
HIT Courses

HIT 201 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 202 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 203 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 123, HIT 201 and HIT 202. F, S

HIT 204 Health Information II 4 credits. Theory, practice and skills in managing health information and personnel. F, S

HIT 207 Supervised Professional Practice II 3 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: All courses must be completed. Graded P/NP. F, S

HIT 208 ICD 9-CM Coding 3 credits. Principles and application of coding for statistical and reimbursement purposes utilizing the International Classification of Diseases. PREREQ: HO 106, BIOL 101, BIOL 101L; and HO111 or BIOL 301 and BIOL 302. F, S

HIT 209 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 106, BIOL 101, BIOL 101L; and HO 111 or BIOL 301 and BIOL 302. F, S

HIT 210 Medical Transcription I 3 credits. Introduction to medical transcription with an emphasis on the profession, history and physical report, pharmacology, laboratory and dermatology specialties. F, S, Su, W

HIT 211 Medical Transcription II 3 credits. Medical transcription with an emphasis on the genitourinary, gastroenterology, orthopedics, and cardiology specialties. F, S, Su, W

HIT 212 Medical Transcription III 3 credits. Medical transcription with an emphasis on pulmonary, endocrinology, obstetrics, gynecology, ophthalmology, otolaryngology, and neurology specialties. F, S, Su, W

HIT 213 Advanced Coding and Reimbursement 3 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 208 and HIT 209. F, S

HIT 298 Special Topics 1-8 credits. This course is designed to address the specific needs of individuals. It will enable student 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. F, S

Health Occupations Department

Chair: Peterson
Program Coordinator and Professor: Smith
Program Coordinator and Assistant Professor: Pearce
Program Coordinators and Instructors: Beck, Bird, Brumfield, Edmunds, Jensen, Jernigan, Kubiak, McQuain, Mikisht, Young
Instructors: Davidson, Flint, Ingram, Knighton, Lamé, Lowry, Mooso
Instructional Assistant, Nursing Programs: Krueger
Senior Lab Supervisor: 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
- Dental Lab Technology
- Early Childhood Care and Education
- Emergency Management
- Fire Services Administration
- Health Information Technology
- Massage Therapy
- Medical Assisting
- Paramedic Science
- 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:

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HO 105</td>
<td>Introduction to Allied Health Careers</td>
<td>2 cr</td>
</tr>
<tr>
<td>HO 106</td>
<td>Medical Terminology</td>
<td>2 cr</td>
</tr>
<tr>
<td>HO 107</td>
<td>Medical Law and Ethics</td>
<td>3 cr</td>
</tr>
<tr>
<td>HO 111</td>
<td>Introduction to Anatomy and Physiology</td>
<td>4 cr</td>
</tr>
<tr>
<td>HO 208</td>
<td>Introduction to Pathology</td>
<td>3 cr</td>
</tr>
<tr>
<td>HO 209</td>
<td>Principles of Drugs and their Uses</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

**Bachelor of Science in Health Science Degree**

This is a baccalaureate degree designed to provide Associate degree graduates the opportunity to pursue a Bachelor of Science (BS) degree in health studies 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 (B.S.H.S.) program 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 the specific career goals of each student.

Students pursuing the Bachelor of Science in Health Science Degree must complete the same goals as those pursuing other Bachelor of Science Degrees: Goals 1, 2, and 3; Goals 4 and 5, or 12 credits in the physical or biological sciences; two of Goals 6, 7, and 8; and three of Goals 9, 10A or 10B, 11, and 12.

Specific goal requirements may be listed under individual health occupations program curricula.

The B.S.H.S. Degree includes the following credit requirements:

**Associate Degree Requirements:** Students must be a graduate of or be enrolled in a health related program that awards an associate degree. *Students with an Associate of Applied Science Degree may transfer up to a maximum of 50 credits from this degree (all lower division courses).*

* Out-of-state associate degrees must be evaluated for meeting the Idaho State Board of Education standards. If the associate degree is over five years old, the degree must be evaluated for currency in the technical field.

**General Education Requirements:** Minimum of 34 credits. A student may need more depending on the results of placement testing.

**Academic Coursework:** 30-35 credits from specific courses listed below.

**Upper Division Credits:** At a total of 36 upper division credits is required.

**Total Minimum Credits Required** (including transfer credits from Associate of Applied Science Degree): 128 credits.

**Required Academic Coursework:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 301, 301L</td>
<td>Anatomy and Physiology and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 302, 302L</td>
<td>Anatomy and Physiology and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>PHYS 111, 113</td>
<td>General Physics I and Lab*</td>
<td>4 cr</td>
</tr>
<tr>
<td>PHYS 112, 114</td>
<td>General Physics II, and Lab*</td>
<td>4 cr</td>
</tr>
<tr>
<td>PHYS 100</td>
<td>Essentials of Physics*</td>
<td>4 cr</td>
</tr>
<tr>
<td>PSYC 301</td>
<td>Abnormal Psychology I</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 307</td>
<td>Professional and Technical Writing</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 253</td>
<td>Introduction to Statistics</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Either these four courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 111, 11L</td>
<td>General Chemistry I, and Lab 5 cr</td>
<td></td>
</tr>
<tr>
<td>CHEM 112, 11L</td>
<td>General Chemistry II, and Lab 4 cr</td>
<td></td>
</tr>
</tbody>
</table>

OR these three courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 101</td>
<td>Introduction to General Chemistry*</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

* The chemistry and physics requirements collectively satisfy Goals 4 and 5.

**Upper Division Credit Choices and Electives**

Students may choose from a variety of upper division courses on campus that will facilitate their career goals and opportunities. There are some upper division classes listed that require a lower division prerequisite or permission of the instructor.

The Bachelor of Science in Health Science is a multi-disciplinary/interdisciplinary degree and allows freedom for students to pursue areas of study that will best meet their professional or graduate school goals. In order to assure that students have the appropriate prerequisites and/or permission from instructors, that degree requirements are met and that the student has a degree that is appropriately focused; the degree plan will be approved by a committee consisting of the Associate Dean and qualified faculty and staff of the Health Occupations Department of the College of Technology.

Below are several areas that a student may select to fulfill the student’s individual goals. The student must complete a minimum of three (3) upper division biology credits. It is expected that a student will complete a minimum of at least one course out of three of the areas listed below. The above-described committee will approve the selection of these upper division credits to assure coherence in the degree plan.

**Areas of Possible Study:**

**Biology:**

A minimum of 3 credits in upper division biology courses.

**Psychological and Social Sciences:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH g407</td>
<td>Introduction to Medical Anthropology</td>
<td>3 cr</td>
</tr>
<tr>
<td>ANTH g408</td>
<td>Special Topics in Medical Anthropology</td>
<td>3 cr</td>
</tr>
<tr>
<td>PSYC 225</td>
<td>Child Development</td>
<td>3 cr</td>
</tr>
<tr>
<td>PSYC 302</td>
<td>Abnormal Psychology II</td>
<td>3 cr</td>
</tr>
<tr>
<td>SOC 301</td>
<td>Classical Social Theory</td>
<td>3 cr</td>
</tr>
<tr>
<td>SOC 330</td>
<td>Sociology of Health and Illness</td>
<td>3 cr</td>
</tr>
<tr>
<td>SOC 346</td>
<td>The Community</td>
<td>3 cr</td>
</tr>
<tr>
<td>SOC g413</td>
<td>Mind, Body, and Society</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

**Health Education:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>H E 332</td>
<td>Community and Public Health</td>
<td>3 cr</td>
</tr>
<tr>
<td>H E 340</td>
<td>Fitness and Wellness Programs</td>
<td>3 cr</td>
</tr>
<tr>
<td>H E 383</td>
<td>Epidemiology</td>
<td>2 cr</td>
</tr>
<tr>
<td>H E g420</td>
<td>Health Planning and Evaluation</td>
<td>3 cr</td>
</tr>
<tr>
<td>H E g460</td>
<td>Health Behavior Change Theory and Application</td>
<td>3 cr</td>
</tr>
</tbody>
</table>
Physical Education:
P E 300 Movement Theory and Motor Development 4 cr
P E 301 Physiology of Exercise 4 cr
P E 302 Biomechanics 3 cr
P E 322 Psycho-Social Aspects of Human Activity 2 cr
P E g470 Care and Prevention of Athletic Injuries 3 cr
P E g494 Adapted Physical Activity 4 cr

Chemistry and Physical Science:
CHEM 301/303 Organic Chemistry I and Lab 4 cr
CHEM 302/304 Organic Chemistry II and Lab 3 cr
PHYS 312 Introduction to Biophysics 4 cr

HO Courses
HO 105 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 106 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
HO 107 Medical Law and Ethics 3 credits. Principles and application of law to health care organizations and personnel, standards of care and liability; covers tort, contract and statutory law. F, S, Su
HO 108 Basic Anatomy 2 credits. The study of the structure and organization of the body and its parts. F, S
HO 111 Introduction to Anatomy and Physiology 4 credits. An introductory study of the normal structure and function of body cells, tissues, organs, and systems. BIOL 101/101L is suggested as a prerequisite to this course. F, S
HO 208 Introduction to Pathology 3 credits. An introductory course in the concepts of pathology. Includes causes, common mechanisms, and anatomic or functional manifestations of human disease. PREREQ: HO 106, BIOL 101/101L, HO 111 or BIOL 301/301L and BIOL 302/302L. F, S, Su
HO 209 Principles of Drugs and their Uses 3 credits. Introduction to the study of drugs, their sources, appearance, actions, uses, and basic principles of therapeutic drug administration. Classification of drug safety issues, sources of drug information, legislation related to drugs, and drug references will be included. PREREQ: HO 106, BIOL 101/101L, HO 111 or BIOL 301/301L and BIOL 302/302L. F, S, Su.

Department of Human Resource Training and Development
Chair and Professor: Croker
Professor: Johnson
Associate Professors: Kolody, Scott
Instructor: Jones
Adjunct Faculty: Buffaloe
Emeriti: Bobell, Humphrey

This department offers professional courses to prepare students for bachelor’s degrees in Human Resource Training and Development with options in Corporate Training or Professional-Technical Teacher Education. A master’s degree in Human Resource Training and Development is offered. Courses listed with the letter “g” before their number can be taken for graduate credit. The master’s degree in HRTD 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/sat/shumres.html

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: Human Resource Training and Development

Field of Specialization
Students enrolled in the PTE option must possess a technical specialization in at least one occupational area recognized as a specialization offered in a post-secondary professional-technical system, or in employee training programs in business and industry.

Professional-Technical Teacher Education Option

The Bachelor of Science Degree in Human Resource Training and Development Professional-Technical Teacher Education prepares persons for instructional responsibilities in professional-technical education, and other related fields. The program includes content applicable to State of Idaho standards for Professional-Technical educators. It emphasizes teaching in public and proprietary secondary and postsecondary schools.
Minimum Requirements: Professional-Technical Teacher Education Option

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRD 207 Technology in Human Resource Training and Development</td>
<td>3 cr</td>
</tr>
<tr>
<td>HRD 320 Selected Topics</td>
<td>1-3 cr</td>
</tr>
<tr>
<td>HRD 406 Grantwriting in Human Resource Training and Development</td>
<td>3 cr</td>
</tr>
<tr>
<td>HRD 409 Professional Readings and Writing</td>
<td>3 cr</td>
</tr>
<tr>
<td>HRD 450 Principles of Adult Education</td>
<td>3 cr</td>
</tr>
<tr>
<td>HRD 461 Directed Studies</td>
<td>1-4 cr</td>
</tr>
</tbody>
</table>

Electives: Professional-Technical Teacher Education Option

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRD 207 Technology in Human Resource Training and Development</td>
<td>3 cr</td>
</tr>
<tr>
<td>HRD 320 Selected Topics</td>
<td>1-3 cr</td>
</tr>
<tr>
<td>HRD 406 Grantwriting in Human Resource Training and Development</td>
<td>3 cr</td>
</tr>
<tr>
<td>HRD 409 Professional Readings and Writing</td>
<td>3 cr</td>
</tr>
<tr>
<td>HRD 450 Principles of Adult Education</td>
<td>3 cr</td>
</tr>
<tr>
<td>HRD 461 Directed Studies</td>
<td>1-4 cr</td>
</tr>
</tbody>
</table>

HRD Courses

HRD 207 Technology in Human Resource Training and Development 3 credits. Using computers in HRTD: hardware, software, and peripherals. Advanced word processing, database development, spreadsheets, and presentations software. How to access and use the Internet. Web-based instruction software will be introduced. F, S

HRD 210 Competency-Based Equivalency 16 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 220 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 310 Competency-Based Equivalency 116 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 320 Selected Topics 1-3 credits. Examination and analysis of special topics for professional-technical education teachers/trainers. PREREQ: Permission of instructor. D

HRD 397 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 subtopics. May be repeated up to four times. Graded S/U. D

HRD 401 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 402 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 403 Methods for Teaching Professional-Technical Education 3 credits. Teaching methods and techniques applicable to professional-technical education. F, S

HRD 404 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 405 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 406 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 409 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 410 Group Initiative and Change 3 credits. Teams in a work environment; activities that develop both a team atmosphere and an understanding of how teams work; types of teams, synergy, team conflict, use of games, the change phenomenon, and team challenge activities. Su

HRD 431 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 444 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 g450 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 g457 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 g461 Directed Studies 1-4 credits. Individual work under staff guidance. Field research on specific occupational advances in technology. PREREQ: Permission of instructor. D

HRD g464 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 g465 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 467 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 g468 Teaching Cooperative Education and School-to-Work 3 credits. Coordinating cooperative education and school-to-work programs, occupational and job analysis, utilizing professional-technical advisory committees, organizing and advising vocational student organizations. S

Information Technology Systems
(2 to 4 1/2 Semesters)
Coordinator and Instructor: Hill
Instructor: McElhinney

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/index.shtml 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 100 Computer System Troubleshooting and Analysis 3 cr
- ITS 110 Networking Basics 3 cr
- ITS 120 Introduction to Unix 3 cr
- ITS 130 Basic Electronic Concepts 4 cr
- ITS 150 Networking I 3 cr
- ITS 160 Networking II 3 cr
- ITS 170 Computer Peripheral Equipment 3 cr
- ITS 180 Network Operating Systems 3 cr
- TGE 158 Employment Strategies 2 cr
- MANT 131 Quality Customer Service 3 cr

TOTAL: 30 cr

Advanced Technical Certificate: Computer Network Technician
(3 1/2 Semesters)

Required Courses:
- ITS 100 Computer System Troubleshooting and Analysis 3 cr
- ITS 110 Networking Basics 3 cr
- ITS 120 Introduction to Unix 3 cr
- ITS 130 Basic Electronic Concepts 4 cr
- ITS 150 Networking I 3 cr
- ITS 160 Networking II 3 cr
- ITS 170 Computer Peripheral Equipment 3 cr
- ITS 180 Network Operating Systems 3 cr
- ITS 200 Data Cabling 7 cr
- ITS 210 Customer Relations Practicum 2 cr
- ITS 220 Networking III 3 cr
- ITS 230 Wireless Technologies 3 cr
- ITS 240 Securing the LAN 3 cr
- TGE 151 152 Technical Writing I, II 4 cr
- TGE 158 Employment Strategies 2 cr
- MANT 135 Work Place Relations 3 cr

TOTAL: 52 cr

Associate of Applied Science Degree: Information Technology Systems
(4 1/2 Semesters)

Required Courses:
- ITS 100 Computer System Troubleshooting and Analysis 3 cr
- ITS 110 Networking Basics 3 cr
- ITS 120 Introduction to Unix 3 cr
- ITS 130 Basic Electronic Concepts 4 cr
- ITS 150 Networking I 3 cr
- ITS 160 Networking II 3 cr
- ITS 170 Computer Peripheral Equipment 3 cr
- ITS 180 Network Operating Systems 3 cr
- ITS 200 Data Cabling 7 cr
- ITS 210 Customer Relations Practicum 2 cr
- ITS 220 Networking III 3 cr
- ITS 230 Wireless Technologies 3 cr
- ITS 240 Securing the LAN 3 cr
- TGE 151 152 Technical Writing I, II 4 cr
- TGE 158 Employment Strategies 2 cr

General Education Requirements:
- ENGL 101 English Composition 3 cr
- Goal 2 3 cr
- Goal 3 3 cr
- Goals 6, 7, 9, 10A, 11 and 12 3 cr
- Additional credits from Goals 4-12 4 cr

TOTAL: 64 cr

ITS Courses
ITS 100 Computer Systems and Troubleshooting 3 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 110 Networking Basics 1 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 120 Introduction to Unix 3 credits. Introduction to UNIX operating system and CDE, GNOME, and KDE graphical user interfaces. Includes an overview of the Sun Solaris and Linux versions of the UNIX operating system. Lecture/Laboratory. F, S

ITS 130 Basic Electronic Concepts 4 credits. Introduction to basic electricity and electronics, including simple DC circuits, use of a Volt-Ohm-Meter, soldering, 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 150 Networking I 3 credits. Study of advanced diagnostic troubleshooting methods for network systems and applications, of IP routing, of OSI model, and of safety procedures. F, S

ITS 160 Networking II 3 credits. Introduces and expands the student’s knowledge and practical experience with configuring LANS, IP networks, and Enhanced Interior Gateway Routing Protocol, switching theory and technologies, and network troubleshooting. Lecture/Laboratory. PREREQ: ITS 110. F, S

ITS 170 Computer Peripheral Equipment 3 credits. Operation of laser and digital printers, including connections, theory of electronics, basics of xerography, supplies, troubleshooting, repair, adjustments, cleaning methods and safety. Fax machine operation and servicing. Lecture/ laboratory. PREREQ: ITS 100. F, S

ITS 180 Network Operating Systems 3 credits. Intensive introduction to multi-user, multi-tasking networking operating systems. Characteristics of current industry operating systems software such as, but not limited to Linux, Windows 2000, NT, and XP network. Topics include installation procedures, security issues, back up procedures and remote access. Lecture/Laboratory. PREREQ: ITS 120. F, S

ITS 200 Data Cabling 7 credits. Physical aspects of computer network cable installation. Provides an understanding of industry standards and trends, routing and pulling cable, and cable testing. Lab-oriented course that stresses documentation, design, installation issues, and safety. Lecture/Laboratory. PREREQ: ITS 110. Su

ITS 210 Customer Relations Practicum 2 credits. Students perform service work for industry partners on a supervised basis. PREREQ: MANT 131. Su

ITS 220 Networking III 3 credits. Wide Area Network technologies such as Point-to-Point Protocol, frame relay, and other emerging technologies. Lecture/Laboratory PREREQ: ITS 150. F, S


ITS 240 Securing the LAN 3 credits. Design and implement security solutions for LANs that will reduce the risk of revenue loss and vulnerability, via hands-on and instructor-led experience and e-learning. Lecture/Laboratory. PREREQ: ITS 150 and ITS 160. F, S

ITS 250 Computer Forensics 3 credits. Use forensic software and techniques in recovering data, conducting data mining, and decrypting. Includes safe handling and preservation of original media, and finding hidden data. D

ITS 290 Internship 1-8 credits. On-the-job experience in the information technology field. PREREQ: Pertinent course preparation and permission of program coordinator. F, S, Su

Instrumentation and Automation Engineering Technology

4½ Semester Program

Program Coordinator and Master Instructor: Snarr
Instructors: Ball, Larson, Maclure, Shepherd, Steffler, Womack

One Post-secondary Technical Certificate, two Advanced Technical Certificates, two Associate of Applied Science Degrees, and two Advanced Technical Certificates, two Associate of Applied Science Degrees, and one Bachelor of Applied Science Degree are available.

Objective:

To prepare students for employment as technicians meeting the changing electrical and process automation needs of 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 pH.

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.

This program requires concurrent enrollment in ELTR 131, ELTR 130, INST 220, and INST 140 in the spring semester and concurrent enrollment in INST 240, 242, 250, 251, 253, and 254 during summer semester.

Required Courses:

<table>
<thead>
<tr>
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<tr>
<td>INST 140</td>
<td>Introduction to Motors and Motor Control Theory</td>
<td>2 cr</td>
</tr>
</tbody>
</table>

Students pursuing an Advanced Technical Certificate or Associate of Applied Science Degree in Industrial Controls will not be required to complete the first year of electronics but will be required to complete the certificate in the Electrical Technician program.

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/instrumentation.shtml](http://www.isu.edu/ctech/instrumentation.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.

All theory courses and laboratory courses in which these theories are applied require concurrent enrollment.

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 pH.

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.

This program requires concurrent enrollment in ELTR 131, ELTR 130, INST 220, and INST 140 in the spring semester and concurrent enrollment in INST 240, 242, 250, 251, 253, and 254 during summer semester.

Required Courses:

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<tr>
<td>INST 140</td>
<td>Introduction to Motors and Motor Control Theory</td>
<td>2 cr</td>
</tr>
</tbody>
</table>
Associate of Applied Science Degree: Instrumentation and Automation Engineering Technology

(4½ Semesters)

General Education Requirements:
ENGL 101 English Composition 3 cr
Goal 2 3 cr
CHEM 111, 111L General Chemistry I, and Lab (Goal 5) 5 cr
OR
PHYS 101, 101L Elements of Physics, and Lab (Goal 5) 4 cr
Goal 6, 7, 9, 10A, 11 or 12 (minimum) 2 or 3 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. The student will then be allowed to repeat the course at the next available program opening.

Courses
See descriptions of courses with the ELTR prefix in the Electronics Department section.

IC Courses
IC 291 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. S

IC 292 Industrial Controls Laboratory 5 credits. Students will learn practical applications and exercises in electronic circuits, automated control, PLCs, timers, sensors, relays, and motor controls. S

INST Courses
INST 140 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 220 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
INST 231 Electronics for Instrumentation and Automation 2 credits. Electronic theory and laboratory addressing the components, functions and configurations of power, multistage differential and operational amplifiers, oscillators, thyristors, power control and regulation circuits, sensors, and networks. Laboratory based learning experiences strengthen principles. PREREQ: Electronics Core courses. Su

INST 232 Introduction to Fiber and Electro-Optics 2 credits. Fundamental physics of fiber/electro-optics, electro-optical spectrum, EO detectors, and arrays, IR sources, IR optical systems, light transmission/propagation, non-linear optics, laser bandwidth, power supplies, optical fibers, fiber installation, testing, and maintenance. Laboratory based learning experiences strengthen the principles taught. PREREQ: Electronics Core courses. Su

INST 233 Fundamentals of Logic Control 2 credits. Introduction to control logic, relay logic principles, electronics in logic, logic and control drawings, fundamentals of programmable logic controllers (PLC’s), and electrical automation concepts. Laboratory based learning experiences strengthen the principles taught. PREREQ: Electronics Core courses. Su

INST 234 Applications of Process Control Devices 2 credits. Electronic control device theory and laboratory including sensors, device communication, controller fundamentals, control loops and loop tuning, device and system calibration and diagnostics, heat transfer, fluid flow, and HVAC control. PREREQ: Electronics Core courses. Su

INST 235 Applications of Process Control Devices 2 credits. Principles of electric power systems, including transmission lines, generator and transformer characteristics, and fault detection and correction. Emphasis on circuit performance addressing voltage regulation, power factor, and protection devices. Laboratory based learning experiences strengthen and apply principles taught. PREREQ: Electronics Core courses. Su


INST 240 Theory 2 credits. Basic concepts of process control devices, calibration and test equipment, diagrams and symbols. F, S, Su

INST 241 Theory 2 credits. Measurement errors, pneumatic-sensors, indicators, transmitters, air supplies, regulators, control valves, actuators, positioners, introduction to controllers, pneumatic controllers. F, S, Su

INST 242 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 243 Theory 2 credits. Digital systems, digital control, analog-to-digital and digital-to-analog interfacing, signal conditioning, programmable controllers, computer application. F, S, Su

INST 244 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. F, S, Su

INST 250 Laboratory 1 credit. Use of test equipment, power supplies, current and volt measurements, use of oscilloscope, capacitors, checkers, decade box, Wheatstone bridge, transmitter simulator, manometers, pressure calibration devices. F, S, Su

INST 251 Laboratory 1 credit. Set up, maintenance, and troubleshooting of pneumatic control systems, air supply, air regulators, pressure gauges pneumatic transducer calibration, control valve operation with and without positioner, controller operating set point, measurement error, offset, proportional band, reset, derivative, reverse and direct acting. F, S, Su

INST 252 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, analytical equipment. F, S, Su

INST 253 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 254 Laboratory 1 credit. Calibration of transmitters, simulation of process variables, temperature, pressure, level flow, and humidity control loops. F, S, Su

INST 260 Electrical Systems Documentation and Standards 2 credits. Introduction to print reading, technical specifications, print annotation, report writing and Electrical codes. F

INST 281 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. S

INST 282 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. S

INST 288 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

INST 294 Cooperative Training 1-16 credits. Student pursues on-the-job training in the instrumentation/industrial controls industry which satisfies competencies in lieu of instrumentation/industrial controls courses. A University Co-op agreement must be signed by all parties involved. Student will pursue a pre-determined unit of activity related to the field of study. May be repeated for a maximum of 16 credits. PREREQ: Permission of instructor. D

INST 296 Process Measurement and Control Theory 10 credits. Theory in the application of 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. F

INST 297 Process Measurement and Control Laboratory 5 credits. Application of INST 296; calibration of transmitters, recorders, indicators, and controllers. Interfacing pneumatic, electrical, electronic, hydraulic, programmable controllers, and computer devices. PID control loop tuning, installation and troubleshooting of working systems. F

INST 298 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. PRE-REQ: Permission of instructor.

Laser/Electro-Optics Technology

4½ Semester Program

Program Coordinator and Advanced Instructor: K. Buffalo

Instructors: S. Larson, Maclure, Shepherd, Womack

One Advanced Technical Certificate, one Associate of Applied Science Degree, and one Bachelor of Applied Science Degree are available.

Objective: To provide students with the skills to work in an ever-expanding laser/optics field. Graduates in this program will be able to perform duties such as cavity alignment for medical lasers, optical path alignment for scientific testing and many
numerous applications that deal with the light spectrum. They will be efficient with optoelectronic components for triggering and sensing circuits; lens configurations for distance and movement measurements; fiber optics for data transfer and optical alignments and will have a basic knowledge of laser to computer communication. This is a hands on learning environment with practical industry challenges.

All theory classes and laboratory application classes of these theories require concurrent enrollment.

Selection of the Electronics option for each accepted student in the Electronic Core curriculum will occur in the second semester. Acceptance into particular options is based upon available openings and other factors such as a grade point average and attendance.

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://electronics.isu.edu/laser_tech.shtml](http://electronics.isu.edu/laser_tech.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: Laser/Electro-Optics Technology

(4½ Semesters)

**Required Courses (see Electronics Core section for required Core courses):**

- ELTR 269: Electronic Drafting I 2 cr
- ELEO 233: Optoelectronics and Data Acquisitions Theory 5 cr
- ELEO 234: Optoelectronics and Data Acquisitions Lab 5 cr
- ELEO 245: Laser Fundamentals and Applications Theory 6 cr
- ELEO 246: Laser Fundamentals and Applications Lab 6 cr
- ELEO 247: Geometric Optics and Applications Theory 6 cr
- ELEO 248: Geometric Optics and Applications Lab 6 cr
- TGE 158: Employment Strategies 2 cr

**General Education Requirement:**

- ENGL 101: English Composition 3 cr

**TOTAL:** 76 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. The student will then be allowed to repeat the course at the next available program opening.

Upon successful completion of Electronics (ELTR) 141, Applied Mathematics I, and ELTR 142, Applied Mathematics II, a student may enroll directly into an academic math course which requires MATH 147 as a prerequisite.

**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.

See descriptions of courses with the ELTR prefix in the Electronics Department section above.

### ELEO Courses

**ELEO 233 Optoelectronics and Data Acquisition Theory 5 credits.** Mathematical analysis and application methods of discrete optoelectronic and semiconductor components. Analysis and troubleshooting of power supplies for laser applications. Exercises in computer-aided data monitoring and analysis. Photonics safety. PREREQ: Electronics Core Courses. Su

**ELEO 234 Optoelectronics and Data Acquisitions Lab 5 credits.** Experiments developed to enhance and supply practical hands-on experience of theory covered in ELEO 233. PREREQ: Electronics Core Courses. Su

**ELEO 245 Laser Fundamentals and Application Theory 6 credits.** The dual nature of light and how light interacts with various media. Topics include: multiple types of detection techniques, laser safety and practices, laser cavity fundamentals, various types of Q-switching, and fiber optic theory and applications. PREREQ: ELEO 233 and ELEO 234. F

**ELEO 246 Laser Fundamentals and Application Lab 6 credits.** Experiments developed to enhance and supply practical hands-on experience of theory covered in ELEO 245. F

**ELEO 247 Geometric Optics and Application Theory 6 credits.** Movement of light through optical systems. Analytical and graphical study of reflection and refraction. PREREQ: Electronics Core Courses. S

**ELEO 248 Geometric Optics and Application Lab 6 credits.** Experiments developed to enhance and supply practical hands-on experience of theory covered in ELEO 247. COREQ: ELEO 247. S

**ELEO 298 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.

### Law Enforcement

2 to 4½ Semester Program

**Program Coordinator and Master Instructor:** Edwards

One Technical Certificate, one Associate of Applied Science Degree, and a Bachelor of Applied Technology Degree are available.

Objective: To provide the knowledge and technical skills for eligibility to become certified peace officers as set forth by the standards of the Idaho Peace Officers
Standards and Training Academy for the State of Idaho.

The Law Enforcement Training Program provides classroom, laboratory and cadet practicum instruction enabling students to enter the general field of law enforcement.

The Law Enforcement Program is designed to prepare graduates to enter the law enforcement field. The Law Enforcement Program has been duly approved by the Idaho Police Officers Standards and Training (POST) Council, thus eliminating the graduates’ need to attend the basic police academy before taking the certification exam. Because the Law Enforcement Program is driven by POST standards for certification into the law enforcement field, applicants to the program must meet POST standards for admission. These admission standards include a background check into the applicants’ criminal, driving and psychological record.

For a Program Information Packet showing descriptions of each option, course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to http://www.isu.edu/ctech/lawenforcement.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-ups, 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 170 Detention Procedures I 3 credits
- LAWE 171 Cadet Practicum 3 credits
- LAWE 172 Health and Fitness I 3 credits
- LAWE 174 Human Relations 2 credits
- LAWE 175 Health and Fitness II 1 credit
- LAWE 176 Investigations I 3 credits
- LAWE 177 Investigations II 3 credits
- LAWE 178 Law I 3 credits
- LAWE 179 Law II 3 credits
- LAWE 180 Patro Procedures I 3 credits
- LAWE 181 Patro Procedures II 3 credits
- LAWE 182 Detention Procedures II 1 credit
- LAWE 183 Detention Procedures III 2 credits
- TGE 158 Employment Strategies 1 credit

TOTAL: 34 credits

Associate of Applied Science Degree:
Law Enforcement

Required Courses:
All Law Enforcement courses must be completed with a minimum grade of “C-” to continue in the program.

- LAWE 170 Detention Procedures I 3 credits
- LAWE 171 Cadet Practicum 3 credits
- LAWE 172 Health and Fitness I 3 credits
- LAWE 174 Human Relations 2 credits
- LAWE 175 Health and Fitness II 1 credit
- LAWE 176 Investigations I 3 credits
- LAWE 177 Investigations II 3 credits
- LAWE 178 Law I 3 credits
- LAWE 179 Law II 3 credits
- LAWE 180 Patro Procedures I 3 credits
- LAWE 181 Patro Procedures II 3 credits
- LAWE 182 Detention Procedures II 1 credit
- LAWE 183 Detention Procedures III 2 credits
- LAWE 184 Law Enforcement Internship I 3 credits
- LAWE 201 Law Enforcement Internship II 3 credits
- TGE 158 Employment Strategies 1 credit

General Education Requirements:

- ENGL 101 English Composition 3 credits
- ENGL 102 General English 3 credits
- SOC 101 Introduction to Sociology 3 credits
- SPAN 101 Elementary Spanish I 4 credits
- SPAN 102 Elementary Spanish II 4 credits
- plus six (6) credits from the following:
  - BI 170 Introduction to Computers 3 credits
  - CIS 101 Introduction to Computer Systems 3 credits
  - MANT 121 Essentials of Management 3 credits
  - MANT 250 Front Line Supervision 3 credits
  - POLS 248 Politics and the Administration of Justice 3 credits
  - POLS 249 Introduction to Criminal Law 3 credits
  - PSYC 200 Juvenile Delinquency 3 credits
  - TOTAL: 65 credits

LAWE Courses

- LAWE 170 Detention Procedures I 3 credits. This course is designed to teach officers the knowledge and skills necessary for P.O.S.T. certification in the Idaho Detention System. Courses are specifically designed for learning procedure and techniques specific to the needs of detention officers. Courses include Idaho minimum jail standards, legal issues, jail medical issues, practical skills, detention techniques, incident procedures, and emergency procedures. F, S
- LAWE 171 Cadet Practicum 3 credits. This course is designed to help the cadet put all skills and practical knowledge to use in the working environment. The cadet rides with a full-time uniform police officer within the department where they are evaluated, trained, and allowed to put new skills and ideas into practice. The cadets do fifty (50) hours of patrol time, fifty (50) hours of detention time, twenty-five (25) hours of dispatch time, and twenty-five (25) hours of other time which may include directing traffic, security, or crowd control at a specific event. F, S
- LAWE 172 Health and Fitness II 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 174 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 175 Health and Fitness II 1 credit. This course is a continuation of LAWE 172. PREREQ: LAWE 172. F, S
- LAWE 176 Investigations I 3 credits. A series of basic courses in preliminary investigations designed for the initial officer responding to a crime scene. Introduction to scientific aids and collection of evidence. Applications of specific investigative techniques for specific offenses are studied. F, S
- LAWE 177 Investigations II 3 credits. This course is a continuation of LAWE 176. PREREQ: LAWE 176. F, S
- LAWE 178 Law 3 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 179 Law II 3 credits. This course is a continuation of LAWE 178. PREREQ: LAWE 178. F, S

LAWE 180 Patrol Procedures II 3 credits. This course is a continuation of LAWE 180. PREREQ: LAWE 180. F, S

LAWE 181 Detention Procedures II 1 credit. Detention procedures relating to mental health, medical procedures, cross-sector supervision, human relations, and hostage relations. PREREQ: LAWE 180. F, S

LAWE 182 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 182. F

LAWE 184 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 185 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 186 Firearms Proficiency 3 credits. Covers firearms training both in the classroom and on the firing range. Also covers use of deadly force. Su

LAWE 187 Enforcement Skills I 1 credit. Curriculum components include hazardous materials, weapon retention, defensive tactics, and the Emergency Vehicle Operations course. Su

LAWE 200 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 201 Law Enforcement Internship II 3 credits. This course is a continuation of LAWE 200. PREREQ: LAWE 200.

LAWE 298 Special Topics 1-16 credits. This course is designed to address the specific needs of individuals. It will enable 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.

### Marketing and Management Occupations

#### 2 Semester, 2½ Semester and 4½ Semester Program Options

Senior Instructor: Davis

#### Program Options

One technical certificate, three Associate of Applied Science degrees and a Bachelor of Applied Technology degree are available.

#### Objectives:

1. To provide the educational opportunity for students seeking careers in the marketing, management, and entrepreneurship fields.

2. To provide the student with the knowledge and skills necessary to attain his/her career goals in a dynamic global marketplace.

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/marketingmanagement.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: Business Technology

#### (2½ Semesters)

#### Required Courses:

The following courses must be completed with a “C” or better in each identified course.

- BI 120 Concepts of Accounting 3 cr
- BI 170 Introduction to Computers Systems, and Lab 3 cr
- CIS 101, 101L Introduction to Computer 3 cr
- MANT 125 Work Place Relations 3 cr
- MANT 127 Principles of Economics 3 cr
- MANT 129 Marketing Mathematics 3 cr
- MANT 131 Marketing Mathematics 3 cr
- MANT 240 Professional Selling 2 cr
- TGE 158 Employment Strategies 2 cr

#### General Education Requirements:

- ENGL 101 English Composition 3 cr
- COMM 101 Principles of Speech 3 cr

#### TOTAL: 34 cr

### Associate of Applied Science Degree: Business Administration

#### (4½ Semesters)

A Bachelor of Business Administration is also available to the student. This is a cooperative degree between the Marketing and Management program and the College of Business (please refer to the College of Business section of the Idaho State University catalog for details).

#### Required Courses:

The following courses must be completed with a “C” or better in each identified course.

- ACCT 202 Principles of Accounting II 3 cr
- ACCT 341 Managerial Cost Accounting 3 cr
- BI 120 Concepts of Accounting 3 cr
- CIS 101, 101L Introduction to Computer Systems, and Lab 3 cr
- ECON 202 Principles of Microeconomics 3 cr
- MANT 130 Business Communications 3 cr
- MANT 135 Work Place Relations 3 cr
- MANT 250 Supervision 3 cr
- MATH 111 Principles of Economics 3 cr
- MATH 112 Essentials of Marketing 3 cr
- MATH 113 Marketing Mathematics 2 cr
- MATH 130 Advertising and Promotions 3 cr
- MATH 240 Professional Selling 3 cr
- MGT 216 Business Statistics 3 cr
- MGT 261 Legal Environment of Organizations 3 cr
- TGE 158 Employment Strategies 2 cr

#### General Education Requirements:

- ENGL 101 English Composition 3 cr
- Goal 1 3 cr
- Goal 2 3 cr
- MATH 160 Applied Calculus 3 cr
- ECON 201 Principles of Macroeconomics 3 cr
- Goals 4-12 3 cr

#### TOTAL: 61 cr

### Associate of Applied Science Degree: Business Technology

#### (4½ Semesters)

#### Required Courses:

The following courses must be completed with a “C” or better in each identified course.

- BI 120 Concepts of Accounting 3 cr
- BI 170 Introduction to Computers Systems, and Lab 3 cr
- CIS 101, 101L Introduction to Computer Systems, and Lab 3 cr
- MANT 130 Business Communications 3 cr
- MANT 135 Work Place Relations 3 cr
- MANT 250 Supervision 3 cr
- MATH 111 Principles of Economics 2 cr
- MATH 112 Essentials of Marketing 3 cr
- MATH 113 Marketing Mathematics 2 cr
- MATH 130 Advertising and Promotions 3 cr

#### TOTAL: 34 cr
MART 240 Professional Selling 2 cr
TGE 158 Employment Strategies 2 cr

**General Education Requirements:**

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<td>ENGL 101</td>
<td>English Composition</td>
<td>3 cr</td>
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<td>Goal 2</td>
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<td>3 cr</td>
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<tr>
<td>Goal 3</td>
<td></td>
<td>3 cr</td>
</tr>
<tr>
<td>Goals 4-11</td>
<td></td>
<td>4 cr</td>
</tr>
<tr>
<td>Goal 12</td>
<td></td>
<td>3 cr</td>
</tr>
<tr>
<td>Plus an earned Technical Certificate of 32 credits or more</td>
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</tr>
</tbody>
</table>

TOTAL: 79 cr

**Associate of Applied Science Degree:**

**Marketing and Management**

(4½ Semesters)

**Required Courses:**
The following courses must be completed with a “C-” or better in each identified course.

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<td>MANT 135</td>
<td>Work Place Relations</td>
<td>3 cr</td>
</tr>
<tr>
<td>MANT 242</td>
<td>Introduction to Business Law and Ethics</td>
<td>3 cr</td>
</tr>
<tr>
<td>MANT 245</td>
<td>Introduction to Finance</td>
<td>3 cr</td>
</tr>
<tr>
<td>MANT 250</td>
<td>Supervision</td>
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<tr>
<td>MANT 251</td>
<td>Small Business Management</td>
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<tr>
<td>MANT 111</td>
<td>Principles of Economics</td>
<td>3 cr</td>
</tr>
<tr>
<td>MANT 112</td>
<td>Essentials of Marketing</td>
<td>3 cr</td>
</tr>
<tr>
<td>MANT 113</td>
<td>Marketing Mathematics</td>
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<tr>
<td>MANT 121</td>
<td>Marketing Applications</td>
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<td>MANT 130</td>
<td>Advertising and Promotions</td>
<td>3 cr</td>
</tr>
<tr>
<td>MANT 240</td>
<td>Professional Selling</td>
<td>3 cr</td>
</tr>
<tr>
<td>MANT 242</td>
<td>E-commerce and Business Marketing</td>
<td>3 cr</td>
</tr>
<tr>
<td>MANT 250</td>
<td>Marketing</td>
<td>3 cr</td>
</tr>
<tr>
<td>MANT 259</td>
<td>Career Internship</td>
<td>3 cr</td>
</tr>
<tr>
<td>TGE 158</td>
<td>Employment Strategies</td>
<td>2 cr</td>
</tr>
<tr>
<td>WDM 176</td>
<td>Desktop Publishing and Multimedia</td>
<td>3 cr</td>
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**General Education Requirements:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>English Composition</td>
<td>3 cr</td>
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<tr>
<td>Goal 2</td>
<td></td>
<td>3 cr</td>
</tr>
<tr>
<td>Goal 3</td>
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</tr>
<tr>
<td>Goals 4-11</td>
<td></td>
<td>4 cr</td>
</tr>
<tr>
<td>Goal 12</td>
<td></td>
<td>3 cr</td>
</tr>
</tbody>
</table>

TOTAL: 72 cr

**HOST Courses**

**HOST 240 Introduction to Travel, Tourism and Hospitality 3 credits.** Travelers’ issues concerning governments, transportation carriers, and the lodging, food and beverage, and entertainment industries. Travel industry structure, including the wide variety of sub-industries in manufacturing and supply, distribution and services, and political and regulatory organizations. F

**HOST 241 Rooms Division Operations 3 credits.** This course presents a systematic approach to rooms division management. This includes the management operations of the housekeeping and front office departments. PREREQ: MANT 121. F

**HOST 242 Marketing Your City 3 credits.** This course will focus on local tourism strategies, including writing marketing plans to attract tourists to a local area; advertising and marketing a local area at trade shows; and attracting conferences and conventions to a local area. PREREQ: MANT 121 and MART 121. F

**HOST 251 Marketing Hospitality Services 3 credits.** This course is designed to provide students the opportunity to apply the basic knowledge of marketing to the hospitality industry. This course provides the student with the basic knowledge of tourism-related concepts and marketing strategies for the hospitality industry. PREREQ: MANT 121 and MART 121. F

**HOST 252 Food and Beverage Management 3 credits.** Provides a basis for understanding the various challenges and responsibilities involved in managing a food and beverage operation. PREREQ: MANT 121. S

**HOST 253 Corporate Travel 3 credits.** Background in the field of corporate travel management, including requests for proposal, selecting a travel agency vendor, and corporate travel operations. PREREQ: MANT 121 and MART 121. S

**HOST 254 International Travel and Tourism 3 credits.** Comprehensive study of international travel industry, including international geography, international monetary exchange, ticketing procedures, itinerary design, ethics, and international politics. PREREQ: MANT 121 and MART 121. F

**HOST 259 Career Internship 3 credits.** This course is designed to provide students an opportunity to gain practical experience in applying their management, marketing, and hospitality skills in a practical work setting. Training plans are utilized to insure maximum training opportunities for the student. This is a non-paid training situation which is completed during the last semester enrolled.

**MART Courses**

**MART 130 Business Communications 3 credits.** Develop and produce effective communication in business letters, memos, reports, and meetings. Learn strategies in writing direct requests, neutral and good-news messages, bad-news messages, and persuasive requests. PREREQ: ENGL 101. D

**MANT 135 Work Place Relations 3 credits.** Study of the motivation and behavior of people and how they affect all work place relationships including both internal and external customers. S

**MANT 242 Introduction to Business Law and Ethics 3 credits.** Provides an overview of the types and formation of business entities under the law. Presents legal and ethical issues as they relate to the business environment including contract law, employment law, and tort law as relevant to a business environment. S

**MANT 245 Introduction to Finance 4 credits.** Broad survey of financial markets, security valuation, time value of money, risk and return, capital budgeting, and the basic techniques of financial analysis. All course content will include spreadsheet and database software application exercises. F

**MANT 250 Supervision 3 credits.** Practical supervisory skills such as decision making, critical thinking, supervision, motivation, evaluation, and reprimand. S

**MANT 251 Small Business Management 3 credits.** Small Business Management 3 credits. Managerial and entrepreneurial skills, including analysis of the elements of starting and managing a small business venture. Develop your own business plan. PREREQ: BI 120. S

**MANT 259 Career Internship 3 credits.** Practical experience using the skills learned in the Marketing and Management Occupations program. F, S, Su

**MART Courses**

**MART 111 Principles of Economics 3 credits.** Exploration and examination of macro and micro economic systems, study of business cycles, supply and demand, fiscal and monetary policy, the banking system, and their effects on the individual as well as the business world. F, S

**MART 112 Essentials of Marketing 3 credits.** Upon completion of the course, the student will have an understanding of economic strategy, advertising strategy, publishing, pricing ethics, and consumer research. F, S

**MART 113 Marketing Mathematics 2 credits.** An understanding of basic math as it relates to marketing and management occupations. Survey of basic math skills and development of technical math skills and development of technical math applications. F, S

**MART 130 Advertising and Promotions 3 credits.** Survey advertising and promotion principles, produce window displays and promotional pamphlets. PREREQ: MART 111, MANT 112, and MART 113. F

**MART 240 Professional Selling 3 credits.** This course provides the methods and principles of effective salesmanship. Role-play situations are incorporated to enhance students’ skill development. PREREQ: COMM 101. F

**MART 242 E-Commerce and Business Marketing 3 credits.** Apply marketing skills and understanding to the Internet; examine usability of for profit and not-for-profit websites; examine the customer trends and make-up on the Internet. PREREQ: MART 111, MART 112, and MART 113. S

**MART 250 Retail Technology 3 credits.** A survey course covering the principles of retailing including store location, design, and organization, merchandising, sales promotion, personnel, services, and control; an exposure to career options; and an exploration of trends in retailing as related to social, technological, and economic changes. S

**MART 259 Career Internship 3 credits.** This course is designed to provide students an opportunity to gain practical experience in applying their management, marketing and hospitality skills in a practical work setting. Training plans are utilized to insure maximum training opportunities for the student. This is a
non-paid training situation which is completed during the last semester enrolled.

**MART 298 Special Topics 1-8 credits.** This course is designed to address the specific needs of individuals. It will enable the students to upgrade their technical skills through part-time enrollment in units of instruction that are currently available through the program’s full-time pre-employment curriculum. PREREQ: Permission of instructor.

### Massage Therapy

(3 1/2 Semesters)

Coordinator/Instructor: Beck

The Massage Therapy Program provides classroom, laboratory, and student practicum instruction which prepares graduates to sit for the National Certification for Therapeutic Massage and Bodywork (NCBTMB) exam.

One Certificate, one Associate of Applied Science Degree (see Associated 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/etch/massagetherapy.shtml](http://www.isu.edu/etch/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.

### Technical Certificate: Massage Therapy

**Prerequisite Courses:**

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<tr>
<th>Course</th>
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<tr>
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<tr>
<td>HO 105</td>
<td>4 cr</td>
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<td>HO 106</td>
<td>2 cr</td>
</tr>
<tr>
<td>HO 111</td>
<td>2 cr</td>
</tr>
<tr>
<td>MSTH 100, 100L</td>
<td>3 cr</td>
</tr>
<tr>
<td>MSTH 200, 200L</td>
<td>2 cr</td>
</tr>
<tr>
<td>MSTH 221, 221L</td>
<td>2 cr</td>
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<tr>
<td>MSTH 240, 240L</td>
<td>2 cr</td>
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**Required Courses:**

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<th>Credits</th>
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<tr>
<td>HO 105</td>
<td>2 cr</td>
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<tr>
<td>MSTH 104, 104L</td>
<td>2 cr</td>
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<tr>
<td>MSTH 105, 105L</td>
<td>4 cr</td>
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<tr>
<td>MSTH 121, 121L</td>
<td>2 cr</td>
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<tr>
<td>MSTH 160, 160L</td>
<td>4 cr</td>
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<tr>
<td>MSTH 170, 170L</td>
<td>2 cr</td>
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<td>MSTH 200, 200L</td>
<td>3 cr</td>
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<tr>
<td>MSTH 221, 221L</td>
<td>3 cr</td>
</tr>
<tr>
<td>MSTH 240, 240L</td>
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**General Education Requirements:**

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<tr>
<th>Course</th>
<th>Credits</th>
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<tr>
<td>ENGL 101</td>
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<tr>
<td>ENGL 102</td>
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<tr>
<td>GOAL 3</td>
<td>3 cr</td>
</tr>
<tr>
<td>PSYC 101</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

This is a 4-credit course that is repeated for 3 credits.

### MSTH Courses

**MMSTH 100 Introduction to Massage Therapy 2 credits.** Principles and the process of professional human contact. Identification of physiological and psychological effects of stress, stress reduction and their benefits and life styles. Self-assessment, stress management, physical requirements and career opportunities for the professional. S

**MSTH 104 Introduction to Kinesiology 2 credits.** Fundamental principles of anatomical terminology, osteology, arthrology. Basic observation and palpation skills required. Cross-listed as PTA 104. PREREQ: Admission to the MSTH or PTA program. F

**MSTH 105 Principles of Therapeutic Massage 2 credits.** History, requirements to practice, professionalism, ethics, sanitary and safety practices, effects, benefits, indications, contraindications, equipment and products, policies, procedures, basic intake and consultation. PREREQ: Admission to MSTH program. F

**MSTH 107 Professional Massage Techniques 4 credits.** Classification of movements, body mechanics, exercise for the practitioner, draping, basic and professional massage routines, hydrotherapy. Foundations for developing massage practitioner skills. PREREQ: Admission to MSTH program. COREQ: MSTH 107L. F

**MSTH 107L Professional Massage Techniques Lab 0 credits.** Skill building in foundational professional massage techniques. COREQ: MSTH 107. F

**MSTH 121 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 150 Therapeutic Procedure and Assessment 2 credits.** Client history and intake, therapeutic procedure and treatment, postural and gait assessment; record keeping; SOAP charting. PREREQ: Admission to MSTH program. COREQ: MSTH 150L. S

**MSTH 150L Procedure and Assessment Lab 0 credit.** Skill building in therapeutic procedures and assessment. COREQ: MSTH 150. F

**MSTH 160 Advanced Therapeutic Massage Techniques 4 credits.** Exploration of various advanced massage techniques. PREREQ: Admission to MSTH program. COREQ: MSTH 160L. S

**MSTH 160L Advanced Therapeutic Massage Techniques Lab 0 credits.** Skill building in techniques for advanced therapeutic massage. COREQ: MSTH 160. S

**MSTH 170 Spa Techniques 2 credits.** Introduction to spa techniques and the spa environment. PREREQ: Admission to MSTH program. Su

**MSTH 200 Special Issues in Massage 3 credits.** Massage procedure and protocol for prenatal, infant, elderly, medical, critically ill, and special needs clients. PREREQ: Admission to MSTH program. COREQ: MSTH 200L. F

**MSTH 200L Special Issues in Massage Lab 0 credits.** Skill building addressing special issues and needs in massage therapy. PREREQ: Admission to MSTH program. COREQ: MSTH 200. F

**MSTH 203 Energetic and Asian Bodywork Theory and Techniques 3 credits.** Basic Asian bodywork theory, reflexology, polarity, and other energy techniques for massage therapy. PREREQ: Admission to MSTH program. COREQ: MSTH 203L. Su

**MSTH 203L Energetic and Asian Bodywork Techniques Lab 0 credit.** Skill building lab for energetic and Asian bodywork techniques. PREREQ: Admission to MSTH program. COREQ: MSTH 203. Su

**MSTH 210 Business Skills for Massage 2 credits.** Business plans, accounting, record keeping, marketing advertising, office management, customer service, and résumés for the new massage therapist. PREREQ: Admission to MSTH program. Su
**Medical Assisting**

Coordinator/Master Instructor: Bird
Advanced Instructor: Mooso

**5 Semester Program for full-time students. Part time program also available.**

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 and
2. Perform routine tasks to keep offices running smoothly.
3. Deal with the public, schedule appointments, process insurance claims, perform bookkeeping duties, etc.
4. Perform some transcription of medical reports and perform a wide variety of other clerical tasks.

Graduates will also take and record vital signs and medical histories, explain treatment procedures to patients, prepare patients for examination, assist during the examination, collect blood and specimen samples, and perform basic lab procedures.

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.

**Associate of Applied Science Degree: Medical Assisting**

**Required Courses:**

- The following courses must be completed with a “C” or better in each identified course.

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BI 170</td>
<td>Introduction to Computers</td>
<td>3 cr</td>
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<tr>
<td>HIT 208</td>
<td>ICD9-CM Coding</td>
<td>3 cr</td>
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<tr>
<td>HIT 209</td>
<td>CPT Coding</td>
<td>3 cr</td>
</tr>
<tr>
<td>HO 105</td>
<td>Introduction to Allied Health Care</td>
<td>2 cr</td>
</tr>
<tr>
<td>HO 106</td>
<td>Medical Terminology</td>
<td>2 cr</td>
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<tr>
<td>HO 107</td>
<td>Medical Law and Ethics</td>
<td>3 cr</td>
</tr>
<tr>
<td>HO 208</td>
<td>Introduction to Pathology</td>
<td>3 cr</td>
</tr>
<tr>
<td>HO 209</td>
<td>Basic Principles of Drugs and Their Uses</td>
<td>3 cr</td>
</tr>
<tr>
<td>MA 104</td>
<td>Introduction to Medical Assisting Administrative</td>
<td>4 cr</td>
</tr>
<tr>
<td>MA 200</td>
<td>Clinical Medical Assisting I</td>
<td>4 cr</td>
</tr>
<tr>
<td>MA 202</td>
<td>Phlebotomy and Administration of Medications</td>
<td>4 cr</td>
</tr>
<tr>
<td>MA 203</td>
<td>Computers in Medical Assisting</td>
<td>4 cr</td>
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<tr>
<td>MA 204</td>
<td>Clinical Externship</td>
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<td>MA 204S</td>
<td>Clinical Externship Seminar</td>
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<td>MA 205</td>
<td>Clinical Medical Assisting II</td>
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<tr>
<td>MA 206</td>
<td>Administrative Externship</td>
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<tr>
<td>MA 206S</td>
<td>Administrative Externship Seminar</td>
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<tr>
<td>MA 207</td>
<td>Professional Development</td>
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<tr>
<td>MA 208</td>
<td>Clinical Medical Assisting III</td>
<td>4 cr</td>
</tr>
<tr>
<td>HO 111</td>
<td>Introduction to Anatomy and Physiology</td>
<td>4 cr</td>
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<tr>
<td>BIOL 301, 301L, 302, 302L</td>
<td>Anatomy and Physiology, and Labs</td>
<td>8 cr</td>
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**General Education Requirements:**

The following General Education courses and any Goal class taken in conjunction with a bachelor’s degree must have an accumulated GPA of 2.0 or better.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>BIOL 101, 101L</td>
<td>Biology I, and Lab</td>
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<tr>
<td>ENGL 101</td>
<td>English Composition</td>
<td>3 cr</td>
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<tr>
<td>ENGL 102</td>
<td>Critical Reading and Writing</td>
<td>3 cr</td>
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<tr>
<td>MATH 123</td>
<td>Mathematics in Modern Society</td>
<td>3 cr</td>
</tr>
<tr>
<td>PSYC 101</td>
<td>Introduction to General Psychology</td>
<td>3 cr</td>
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</tbody>
</table>

**TOTAL: 75-80 cr**

**MA Courses**

**MA 104 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. F

**MA 200 Clinical Medical Assisting I 4 credits.** Basic clinical procedures: taking and recording vital signs, histories, and chief complaints; asepsis; OSHA standards; health maintenance, disinfection and sterilization procedures; inventoring and ordering medical supplies; maintaining equipment; therapy modalities; preparing patients for exams; CPR and First Aid; patient education. PREREQ: Previous semester course sequence. F

**MA 202 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. S

**MA 203 Computers in Medical Assisting Administrative 4 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. F

**MA 204 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 medical practice staff. PREREQ: All other MA required courses (including general education and HO courses). F, S

**MA 204S Clinical Externship Seminar 1 credit.** Extension of the clinical externship;
students meet for one hour each week to discuss experiences and progress with their clinical advisor and other students. PREREQ: All other MA required courses (including general education and HO courses). COREQ: MA 204. F, S

MA 205 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. F, S

MA 206 Administrative Externship 2 credits. Application of the principles and practice of the administrative clerical functions of a medical office in an externship/externship environment under the supervision of a physician and the business management staff. PREREQ: All other MA required courses (including general education and HO courses). F, S

MA 206S Externship Seminar 1 credit. Extension of MA 206. Discuss experiences and progress with advisor and other students. PREREQ: All other MA required courses (including general education and HO courses). F, S

MA 207 Professional Development 1 credit. Principles and applied techniques for Medical Assisting professional career development. Preparation for transition from school to the work place. PREREQ: Previous semester course sequence, and OT 170. F

MA 208 Clinical Medical Assisting III 4 credits. Vital signs, asepsis, and health maintenance; charting; patient education; assisting with specialty examinations in pediatrics, OB/GYN, cardiology, pulmonary, gastroenterology, eyes, ears, nose, and throat. PREREQ: Previous semester course sequence. F

MA 298 Special Topics 1-8 credits. This course is designed to address the specific needs of individuals. It will enable 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

Paralegal Studies

4 Semesters

Program Coordinator and Instructor: Keiholtz

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 once.

Associate of Applied Science Degree: Paralegal Studies

(4 Semesters)

Required Courses:

<table>
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<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>CIS 101</td>
<td>Introduction to Computer Systems</td>
<td>3 cr</td>
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<tr>
<td>BI 170</td>
<td>Introduction to Computers</td>
<td>3 cr</td>
</tr>
<tr>
<td>PARA 110</td>
<td>Introduction to Paralegal Studies</td>
<td>3 cr</td>
</tr>
<tr>
<td>PARA 111</td>
<td>Ethics and Professionalism</td>
<td>3 cr</td>
</tr>
<tr>
<td>PARA 113</td>
<td>Contract Law</td>
<td>3 cr</td>
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<tr>
<td>PARA 115</td>
<td>Property Law</td>
<td>3 cr</td>
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<td>PARA 116</td>
<td>Tort Law</td>
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<td>PARA 117</td>
<td>Criminal Law and Procedure</td>
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<td>PARA 121</td>
<td>Law Office Management</td>
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<td>PARA 122</td>
<td>Legal Research, Analysis, and Writing I</td>
<td>3 cr</td>
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<td>PARA 212</td>
<td>Pre-Trial Civil Litigation and Procedure</td>
<td>3 cr</td>
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<tr>
<td>PARA 222</td>
<td>Legal Research, Analysis, and Writing II</td>
<td>3 cr</td>
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<tr>
<td>PARA 230</td>
<td>Paralegal Internship</td>
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Plus Six Credits from the Following Courses:

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<th>Course</th>
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<tbody>
<tr>
<td>PARA 112</td>
<td>Estates, Wills, and Trusts</td>
<td>3 cr</td>
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<tr>
<td>PARA 114</td>
<td>Family Law</td>
<td>3 cr</td>
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<tr>
<td>PARA 118</td>
<td>Business Organizations</td>
<td>3 cr</td>
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<tr>
<td>PARA 213</td>
<td>Post-Trial Civil Litigation and Procedure</td>
<td>3 cr</td>
</tr>
<tr>
<td>PARA 215</td>
<td>Debtor/Creditor Rights and Bankruptcy Law</td>
<td>3 cr</td>
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<tr>
<td>PARA 223</td>
<td>Legal Research, Analysis, and Writing III</td>
<td>3 cr</td>
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<tr>
<td>PARA 298</td>
<td>Independent</td>
<td>1-8 cr</td>
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General Education Requirements:

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<th>Description</th>
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<td>Goal 3</td>
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<tr>
<td>Goals 4-10B</td>
<td>6 cr</td>
</tr>
<tr>
<td>Goals 11 and 12</td>
<td>TOTAL: 64 cr</td>
</tr>
</tbody>
</table>

PARA Courses

PARA 110 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. F

PARA 111 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. F

PARA 112 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. F

PARA 113 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. S

PARA 114 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. The role of the paralegal in the area of domestic law is emphasized. F

PARA 115 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. S

PARA 116 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. Defenses to and damages recoverable for a tort claim. Personal injury litigation and worker’s compensation will be discussed in depth. F

PARA 117 Criminal Law and Procedure 3 credits. Statutory and common law crimes against person, property, and society; the elements required to prove a crime; and the defenses available to a defendant. Constitutional and statutory standards for law enforcement practices, plea negotiation, trial, sentencing,
and appeal. Conducting preliminary factual investigation and other pre-trial work. F

PARA 118 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. F, S

PARA 121 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. F

PARA 122 Legal Research, Analysis, and Writing I 3 credits. Basic elements of legal research and sources of the law using print and electronic research methods. Develops fundamental skills for analyzing legal issues and developing legal arguments. Introduce basics of legal document preparation such as case briefing, letter writing, and research memoranda drafting. PREREQ: BI 170 or CIS 101, ENGL 101, and PARA 110. S

PARA 212 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. F

PARA 213 Trial and Post-Trial Civil Litigation and Procedure 3 credits. Continue with the fictional civil lawsuit beginning at a point sixty days before the trial date. Learn the paralegal’s role in preparing witnesses, making trial notebooks, giving jury instructions, assisting at trial, making post-judgment motions, and handling appeals and collection. PREREQ: PARA 212. S

PARA 215 Debtor and Creditor Rights and Bankruptcy Law 3 credits. The paralegal’s role relating to business transactions, debtor/creditor relations, consumer protection, and bankruptcy. Students explore secured and unsecured transactions, rights and remedies available under Article 9 of the Uniform Commercial Code and other statutes, and the types of relief afforded under the Bankruptcy Code. S

PARA 222 Legal Research, Analysis, and Writing II 3 credits. Continued development of issue identification and legal analysis skills. In-depth legal research using primary and secondary sources of law and print and electronic research media. Advanced legal document preparation including court briefs and memorandum, litigation, and transactional documents. PREREQ: BI 170 or CIS 101, ENGL 101, PARA 110, and PARA 122. S

PARA 223 Legal Research, Analysis, and Writing III 3 credits. Development of more advanced legal analysis and issue identification skills. In-depth legal research of primary and secondary authority using law library resources and computerized legal databases. Related legal writing skills are developed further, including preparation of complex legal documents. PREREQ: ENGL 101, PARA 110, PARA 122, and PARA 222. F

PARA 230 Paralegal Internship 4 credits. Students acquire practical experience in doing the job of a paralegal in the workplace. The course is arranged on an individual basis. S

PARA 208 Independent Paralegal Studies 1-8 credits. This course is designed to address the specific needs of individual students employed full-time who wish to upgrade their technical skills through part-time enrollment in units of instruction that are currently available through the program’s curriculum. PREREQ: Permission of the instructor.

**Paramedic Science**

**4 ½ to 5 Semesters**

Instructor: Allen

One Emergency Medical Technical – Basic (EMT-B) Postsecondary Technical Certificate, one Advanced Technical Certificate, one Associate of Science degree, and one Bachelor of Science in Health Sciences Degree are available. The Paramedic Program is offered at the Idaho State University Center in Boise as well as on the Pocatello campus.

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 a facilitators of access to care, as well as be initial treatment providers.

The Paramedic Program curriculum consists of a pre-professional year followed by three semesters of lecture, laboratory, and clinical field experience, including a three-month field internship. Students who earn the Associate of Science Degree are qualified to take the EMT-P examination through the National Registry of Emergency Medical Technicians.

An Advanced Technical Certificate in Paramedic Science is also offered. Only those students who are currently employed by, and sponsored by, a pre-hospital paramedic level service, and have at least five years of experience as an EMT-Basic or Advanced, are eligible for the Advanced Certificate. These students must coordinate their field internship with their current paramedic level service upon approval by the Program Director. Graduates who have earned this Certificate may also take the EMT-P examination through the National Registry of Emergency Medical Technicians. This Certificate requires minimal prerequisite and general education courses and the same second year curriculum as the A.S. Degree.

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/paramedic/programinfo.shtml](http://www.isu.edu/ctech/paramedic/programinfo.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.

**Postsecondary Technical Certificate: Emergency Medical Technician - Basic**

**1 Semester**

**Required Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMTB 119</td>
<td>4 cr</td>
</tr>
<tr>
<td>EMTB 119L</td>
<td>4 cr</td>
</tr>
<tr>
<td>EMTB 120</td>
<td>2 cr</td>
</tr>
<tr>
<td>EMTB 121</td>
<td>1 cr</td>
</tr>
</tbody>
</table>

**TOTAL:** 11 cr
### Advanced Technical Certificate: Paramedic Science

**3 ½ Semesters**

The student is required to maintain a “C” or better GPA to remain in the program. All Biology, Health, and Paramedic courses must be completed with a “C” or better in each course for the student to remain in the program.

#### Required Professional Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 101,101L</td>
<td>Biology I, and Lab and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 301,301L and BIOL 302,302L</td>
<td>Anatomy and Physiology, and Labs</td>
<td>8 cr</td>
</tr>
<tr>
<td>HO 111</td>
<td>Introduction to Anatomy and Physiology</td>
<td>4 cr</td>
</tr>
<tr>
<td>ENGL 101</td>
<td>English Composition</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 102</td>
<td>English Composition</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 102</td>
<td>Critical Reading and Writing</td>
<td>3 cr</td>
</tr>
<tr>
<td>HCA 210</td>
<td>Medical Terminology and Communication</td>
<td>2 cr</td>
</tr>
<tr>
<td>HCA 210</td>
<td>Medical Terminology</td>
<td>2 cr</td>
</tr>
<tr>
<td>BIOL 101,101L</td>
<td>Biology I, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 301,301L and BIOL 302,302L</td>
<td>Anatomy and Physiology, and Labs</td>
<td>8 cr</td>
</tr>
<tr>
<td>BIOL 301,301L and BIOL 302,302L</td>
<td>Critical Reading and Writing</td>
<td>3 cr</td>
</tr>
<tr>
<td>HO 106</td>
<td>Medical Terminology</td>
<td>2 cr</td>
</tr>
<tr>
<td>SOCS 101, 102, or PSYC 101</td>
<td>3 cr</td>
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**TOTAL for Associate Degree: 59 or 67 cr**

#### General Education Requirements

<table>
<thead>
<tr>
<th>Goal</th>
<th>Credits</th>
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<td>2</td>
<td>6 cr</td>
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<tr>
<td>6</td>
<td>6 cr</td>
</tr>
<tr>
<td>101, 102 or PSYC 101</td>
<td>Goal 12</td>
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#### Paramedic (Professional) Requirements:

##### Second Year, Fall Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>EMTP 201</td>
<td>Paramedic I</td>
<td>5 cr</td>
</tr>
<tr>
<td>EMTP 201L</td>
<td>Paramedic I Laboratory</td>
<td>3 cr</td>
</tr>
<tr>
<td>EMTP 202</td>
<td>Paramedic Clinical Practicum I</td>
<td>2 cr</td>
</tr>
<tr>
<td>EMTP 203</td>
<td>Paramedic Clinical Practicum II</td>
<td>2 cr</td>
</tr>
<tr>
<td>EMTP 210,210L</td>
<td>Paramedic I Pre-Hospital Pharmacology, and Lab</td>
<td>7 cr</td>
</tr>
<tr>
<td><strong>TOTAL:</strong></td>
<td></td>
<td>18 cr</td>
</tr>
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</table>

##### Second Year, Spring Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMTP 220</td>
<td>Paramedic II</td>
<td>5 cr</td>
</tr>
<tr>
<td>EMTP 220L</td>
<td>Paramedic II Laboratory</td>
<td>3 cr</td>
</tr>
<tr>
<td>EMTP 222</td>
<td>Paramedic Clinical Practicum II</td>
<td>2 cr</td>
</tr>
<tr>
<td>EMTP 223</td>
<td>Paramedic Field Practicum I</td>
<td>2 cr</td>
</tr>
<tr>
<td>EMTP 225,225L</td>
<td>Cardiology and EKG Interpretation, and Lab</td>
<td>7 cr</td>
</tr>
<tr>
<td><strong>TOTAL:</strong></td>
<td></td>
<td>19 cr</td>
</tr>
</tbody>
</table>

##### Second Year, Summer Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMTP 230</td>
<td>Paramedic Field Practicum II</td>
<td>4 cr</td>
</tr>
<tr>
<td><strong>TOTAL for Associate Degree:</strong></td>
<td></td>
<td>82 cr</td>
</tr>
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</table>

#### EMTP Courses

- **EMTP 119 Fundamentals of Emergency Medical Care 4 credits.** Introductory survey of emergency medical services, including medical, legal, and ethical aspects; techniques of CPR, extrication, management of trauma and administration of appropriate emergency medical care will be covered. COREQ: EMTP 119L, 120, and 121. F, S
- **EMTP 119L Fundamentals of Emergency Medical Care Laboratory 4 credits.** Practical application of didactic instruction in EMTP 119. Discussion and application of basic computer skills in the health care setting is also covered. COREQ: EMTP 119, 120, and 121. F, S
- **EMTP 120 Emergency Department Clinics 2 credits.** Students rotate through various emergency room departments at local hospital documenting and performing basic life support skills under the direct supervision of an assigned preceptor. COREQ: EMTP 119, 119L, and EMTP 121. F, S
- **EMTP 121 EMS Field Practicum 2 credits.** Students are exposed to pre-hospital emergency medicine and observation of emergency medical dispatch in a 911 Dispatch/Communication center. COREQ: EMTP 119, EMTP 119L, and EMTP 120. F, S
- **EMTP 201 Paramedic I 5 credits.** Paramedic roles and responsibilities. Medical, legal and ethical issues. General principles of pathophysiology, therapeutic communications and documentation. Patient assessment, history gathering, advanced airway management, intravenous cannulation, treatment of shock. PREREQ: Admission to Paramedic Program and Anatomy and Physiology. COREQ: EMTP 201L. F
- **EMTP 201L Paramedic I Laboratory 3 credits.** Practical application of didactic instruction from EMTP 201, including role of the paramedic in health care delivery, duties and responsibilities, shock assessment and management, medication administration, and IV therapy. COREQ: EMTP 201. F
- **EMTP 202 Paramedic Clinical Practicum I 2 credits.** Students rotate 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, acquired, and practiced in EMTP 201/201L. COREQ: EMTP 201/201L. F
- **EMTP 203 Advanced Airway Management Practicum 1 credit.** Students rotate through operations rooms in local hospitals. Student is supervised by an anesthesiologist and/or CRNA while observing and performing endotracheal intubations. COREQ: EMTP 201/201L. F
- **EMTP 210 Paramedic Pre-Hospital Pharmacology 3 credits.** Introduction to principles and theories of pharmacology and the administration of medications in an emergency setting. Dosage calculations and medication preparation are presented. COREQ: EMTP 210/210L. F
- **EMTP 210L Prehospital Pharmacology Laboratory 4 credits.** Assists the student with cognitive and psychomotor skills required for the administration of medications in the prehospital setting. COREQ: Spring semester program courses. F
- **EMTP 220 Paramedic II 5 credits.** Introduction to medical and traumatic emergencies. Anatomy, physiology, and pathophysiology of human organs and organ systems in medical and traumatic emergencies is presented. Special considerations, scene awareness, rescue, and command issues in emergency care are also covered. PREREQ: Successful Completion of first semester of Paramedic curriculum. COREQ: EMTP 220L. S
- **EMTP 220L Paramedic II Laboratory 3 credits.** Practical application of didactic instruction in EMTP 220. Includes medical and traumatic emergencies. Advanced Cardiac Life Support, Pediatric Advanced Life Support, Pre-hospital Trauma Life Support and Advanced medical Life Support. COREQ: EMTP 220. S
- **EMTP 222 Paramedic Clinical Practicum II 2 credits.** Students rotate through various emergency room departments at local hospitals documenting and performing basic life support skills under the direct supervision of an assigned preceptor. COREQ: EMTP 119, 119L, and EMTP 121. F, S
- **EMTP 223 Paramedic Field Practicum II 2 credits.** Students are exposed to pre-hospital emergency medicine and observation of emergency medical dispatch in a 911 Dispatch/Communication center. COREQ: EMTP 119, EMTP 119L, and EMTP 120. F, S
- **EMTP 225 Cardiology and EKG Interpretation 3 credits.** Discussion of anatomy, physiology, and pathophysiology of the cardiovascular system and EKG interpretation including cardiac dysrhythmias. Assessment and management of...
patients with suspected cardiovascular emergencies. COREQ: EMTP 220 and EMTP 220L. S

EMTP 225L Cardiology and EKG Interpretation Laboratory 4 credits. Assists the student with cognitive and psychomotor skills for the interpretation of cardiac rhythms and treatment of dysrhythmias. PREREQ: Admission to Program. COREQ: Spring semester program courses. S

EMTP 230 Paramedic Field Practicum II 1-6 credits. Precepted field internship as lead paramedic on EMS response unit, practicing all skills demonstrated in the program. May be repeated for up to 10 credits, only 6 of which may be applied to any subsequent degree or certificate. PREREQ: Successful completion of first two semesters of Paramedic Program. COREQ: EMTP 235. Su

### Physical Therapist Assistant

**4½ Semesters**

Coordinator/Instructor: Jernigan

Instructor: Lamé

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 years 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/echt/physicaltherapistassistant.shtml](http://www.isu.edu/echt/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

##### Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTA 101</td>
<td>Introduction to Physical Therapy</td>
<td>1 cr</td>
</tr>
<tr>
<td>PTA 102</td>
<td>Applied Kinesiology</td>
<td>4 cr</td>
</tr>
<tr>
<td>PTA 103</td>
<td>Procedures I</td>
<td>5 cr</td>
</tr>
<tr>
<td>PTA 104</td>
<td>Procedures II</td>
<td>5 cr</td>
</tr>
<tr>
<td>PTA 105</td>
<td>Physical Therapy Assessment</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 101</td>
<td>Biology I, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 101L</td>
<td>Biology I, and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>ENGL 101</td>
<td>English Composition</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 102</td>
<td>Critical Reading and Writing</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 103</td>
<td>Goal 3</td>
<td>3 cr</td>
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<td>HIST 101</td>
<td>History of the United States</td>
<td>3 cr</td>
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<tr>
<td>HIST 101L</td>
<td>History of the United States</td>
<td>3 cr</td>
</tr>
<tr>
<td>PSYC 101</td>
<td>Introduction to General Psychology</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

**TOTAL: 71 or 75 cr**

### Courses

For course descriptions of the academic courses required by the Physical Therapist Assistant A.A.S. Degree, see the College of Arts and Sciences.

#### PTA Courses

**PTA 104 Introduction to Kinesiology 2 credits.** Fundamental principles of anatomical terminology, osteology, arthrology. Basic observation and palpation skills required. PREREQ: Admission to the MSTH or PTA program. F

**PTA 105 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 104 or permission of instructor. F

**PTA 106 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 105, BIOL 101, BIOL 101L, BIOL 301, and BIOL 301L. S

**PTA 107 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 105. S

**PTA 201 Procedures II 5 credits.** A continuation of PTA 107, 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 104, PTA 105, PTA 106, PTA 107, and PTA 213. F

**PTA 202 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 104, PTA 105, PTA 106, PTA 107, and PTA 213. F

**PTA 203 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 208, PTA 201, and PTA 202. S

**PTA 204 Seminar 3 credits.** Current practices and issues in physical therapy. Includes clinical problem solving, ethics, legal aspects, reim-
bursement, case management, research, and employment issues. PREREQ: Second year student in good standing, and PTA 201, PTA 202, and PTA 202. S

PTA 213 Clinical Affiliation 17 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 104, PTA 105, PTA 106, and PTA 107. S

PTA 214 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 201, PTA 202, PTA 203, PTA 204, and PTA 213. S

PTA 298 Special Topics 1-8 credits. This course is designed to address the specific needs of individuals. It will enable the students to upgrade their technical skills through part-time enrollment in units of instruction that are currently available through the program’s full-time pre-employment curriculum. PREREQ: Permission of instructor.

**Practical Nursing**

2½ Semester Program (Full-time)
7½ Semester Program (Part-time or Outreach)

Professor: Smith
Assistant Professor: Pearce
Clinical Coordinator and Instructor: Brumfield
Instructors: Eddington, Jensen, Kubiak
Adjunct Faculty: Mansfield

One Advanced Technical certificate is available (via full-time or part-time scheduling). 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/tech/practicalnursing.shtml](http://www.isu.edu/tech/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:

   - BI 170 Introduction to Computers 3 cr
   - CIS 101,101L Introduction to Computers 3 cr OR
   - HO 106 Medical Terminology 2 cr OR
   - HCA/HE 210 Medical Terminology and Communication 2 cr OR
   - HO 111 Introduction to Anatomy and Physiology 4 cr OR
   - BIOL 301, 301L and BIOL 302, 302L Anatomy and Physiology, and Labs 8 cr
   - NTD 340 Nutrition 3 cr OR
   - PNUR 124 Nutrition and Diet Therapy for the Practical Nurse 2 cr OR
   - PSYC 101 Introduction to General Psychology 3 cr

     **PREREQUISITES TOTAL:** 14, 15, 18 or 19 cr

**Program Requirements**

- **PNUR 110,110L Basic Foundations of Nursing, and Lab** 4 cr
- **PNUR 112 Medical Surgical Nursing I** 3 cr
- **PNUR 113 Medication Administration for Practical Nursing** 1 cr
- **PNUR 114 Clinical Foundations of Nursing I** 3 cr
- **PNUR 115 Professional Development Seminar** 1 cr
- **PNUR 121 Clinical Foundations of Nursing II** 4 cr
- **PNUR 123 Drug Therapy for the Practical Nurse** 3 cr
- **PNUR 125 Family Nursing for the Practical Nurse** 5 cr
- **PNUR 126, 126L Medical Surgical Nursing II, and Lab** 5 cr
- **PNUR 131 Clinical Foundations of Nursing III** 2 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 110 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 110L. F, ASu
- **PNUR 110L 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 110. F, ASu
- **PNUR 112 Medical Surgical Nursing 1 3 credits.** Principles of practical nursing care for the ill adult. COREQ: PNUR 110 or permission of instructor. F
- **PNUR 113 Medication Administration for Practical Nursing I 3 credits.** The basics of safe medication administration, including math calculations and proper procedures. The medication examination included in this class must be successfully passed before the student practical nurse administers medication in clinical settings. COREQ: PNUR 110 or permission of instructor. F, Su
- **PNUR 114 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 110 or permission of instructor. F
- **PNUR 115 Professional Development Seminar I credit.** Professional development to increase understanding of the practical nurse’s role and responsibilities. COREQ: PNUR 110 or permission of instructor. F
- **PNUR 121 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 110 and PNUR 123. S, AF
- **PNUR 123 Drug Therapy for the Practical Nurse 3 credits.** Drugs and their actions as related to patient care in practical nursing practice. COREQ: PNUR 110 or permission of instructor. F
- **PNUR 124 Nutrition and Diet Therapy for the Practical Nurse 2 credits.** Basic nutrition principles and the application of diet therapy for health promotion. D
- **PNUR 125 Family Nursing for the Practical Nurse 5 credits.** Principles of practical
nursing care of the child-bearing woman and newborn. The disorders of childhood and the principles of pediatric nursing care. Principles of normal growth and development of the child are incorporated throughout. PREREQ: PNR 110. COREQ: PNR 121. S

PNUR 126 Medical Surgical Nursing II 4 credits. Principles of practical nursing care for the ill adult. PREREQ OR COREQ: PNR 112. COREQ: PNR 121 and PNR 126L. S

PNUR 126L Medical Surgical Nursing Lab 1 credit. Practical application of medical surgical nursing interventions and procedures/skills within the practical nursing scope of practice. PREREQ OR COREQ: PNR 112 or PNR 126. S, AF

PNUR 131 Clinical Foundations of Nursing III 2 credits. Theory and principles of practical nursing care are applied within the clinical setting. PREREQ: PNR 121. COREQ: PNR 140. AS, Su

PNUR 133 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: PNR 110 or permission of instructor. COREQ: PNR 133L. S

PNUR 133L Intravenous Therapy Lab for the Practical Nurse 1 credit. Application of intravenous therapy skills for the practical nurse. COREQ: PNR 110 or permission of instructor, and PNR 133. S

PNUR 137 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: PNR 140. AS, Su

PNUR 139 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 140 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: PNR 112 and PNR 126. COREQ: PNR 137. AS, Su

PNUR 198 Special Topics 1-8 credits. This course is designed to address the specific needs of individuals. It will enable the students to upgrade their technical skills through part-time enrollment in units of instruction that are currently available through the program’s full-time pre-employment curriculum. PREREQ: Permission of instructor.

Respiratory Therapy

Semester Program
Coordinator/Instructor: (Vacant)

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/etech/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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 221,221L</td>
<td>Introduction to Microbiology, and Lab*</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 301,301L</td>
<td>Anatomy and Physiology, and Lab*</td>
<td>4 cr</td>
</tr>
<tr>
<td>BIOL 302,302L</td>
<td>Anatomy and Physiology, and Lab*</td>
<td>4 cr</td>
</tr>
<tr>
<td>CHEM 101</td>
<td>Introduction to General Chemistry</td>
<td>3 cr</td>
</tr>
<tr>
<td>CHEM 111,111L</td>
<td>General Chemistry I, and Lab 5 cr</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 101</td>
<td>Principles of Speech</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENGL 101</td>
<td>English Composition</td>
<td>3 cr</td>
</tr>
<tr>
<td>HO 105</td>
<td>Introduction to Allied Health Careers</td>
<td>2 cr</td>
</tr>
<tr>
<td>HO 106</td>
<td>Medical Terminology</td>
<td>3 cr</td>
</tr>
<tr>
<td>HO 107</td>
<td>Medical Law and Ethics</td>
<td>3 cr</td>
</tr>
<tr>
<td>HO 208</td>
<td>Introduction to Pathology</td>
<td>3 cr</td>
</tr>
<tr>
<td>HO 209</td>
<td>Principles of Drugs and Their Uses</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 108</td>
<td>Intermediate Algebra</td>
<td>3 cr</td>
</tr>
<tr>
<td>PSYC 101</td>
<td>Introduction to General Psychology**</td>
<td>3 cr</td>
</tr>
<tr>
<td>SOC 101</td>
<td>Introduction to Sociology**</td>
<td>3 cr</td>
</tr>
<tr>
<td>SOC 102</td>
<td>Social Problems**</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

*Collectively, these Biology courses satisfy Goals 4 and 5.

Any one of these courses satisfies Goal 12.

Upon successful completion of the Respiratory Therapy Program, graduates are eligible to take the National Board for Respiratory Care (NBRC) entry-level examination to become certified respiratory therapists (CRT). They would then be eligible, and are encouraged, to complete the NBRC advanced-level examination to become registered respiratory therapists (RRT).

Respiratory Therapy students must maintain a GPA of 2.0 or better, and complete all Biology, Health, and Respiratory Therapy courses with a “C” or better to remain in the program.

Associate of Science Degree: Respiratory Therapy

Additional General Education and Other Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>English Composition</td>
<td>3 cr</td>
</tr>
<tr>
<td>HO 105</td>
<td>Introduction to Allied Health Careers</td>
<td>2 cr</td>
</tr>
<tr>
<td>HO 106</td>
<td>Medical Terminology</td>
<td>2 cr</td>
</tr>
<tr>
<td>HO 107</td>
<td>Medical Law and Ethics</td>
<td>3 cr</td>
</tr>
<tr>
<td>HO 208</td>
<td>Introduction to Pathology</td>
<td>3 cr</td>
</tr>
<tr>
<td>HO 209</td>
<td>Principles of Drugs and Their Uses</td>
<td>3 cr</td>
</tr>
<tr>
<td>MATH 108</td>
<td>Intermediate Algebra</td>
<td>3 cr</td>
</tr>
<tr>
<td>PSYC 101</td>
<td>Introduction to General Psychology**</td>
<td>3 cr</td>
</tr>
<tr>
<td>SOC 101</td>
<td>Introduction to Sociology**</td>
<td>3 cr</td>
</tr>
<tr>
<td>SOC 102</td>
<td>Social Problems**</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Two of Goals 6, 7, and 8

Two of Goals 9, 10A or 10B, and 11

*Not taken prior to admission—both 301 and 302 are required.

Respiratory Therapy Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESP 200</td>
<td>Introduction to Respiratory Care</td>
<td>4 cr</td>
</tr>
<tr>
<td>RESP 211</td>
<td>Pharmacotherapy for Respiratory Therapists</td>
<td>2 cr</td>
</tr>
<tr>
<td>RESP 214</td>
<td>Introduction to Pulmonary Disease</td>
<td>4 cr</td>
</tr>
<tr>
<td>RESP 231</td>
<td>Patient Assessment I</td>
<td>2 cr</td>
</tr>
<tr>
<td>RESP 232</td>
<td>Patient Assessment II</td>
<td>2 cr</td>
</tr>
<tr>
<td>RESP 280</td>
<td>Case Management I</td>
<td>2 cr</td>
</tr>
<tr>
<td>RESP 301</td>
<td>Mechanical Ventilators</td>
<td>4 cr</td>
</tr>
<tr>
<td>RESP 310</td>
<td>Case Management II</td>
<td>2 cr</td>
</tr>
<tr>
<td>RESP 320</td>
<td>Clinical Practice of Therapeutic Procedures I</td>
<td>5 cr</td>
</tr>
<tr>
<td>RESP 325</td>
<td>Clinical Practice of Therapeutic Procedures II</td>
<td>3 cr</td>
</tr>
</tbody>
</table>
RESP Courses

RESP 200 Introduction to Respiratory Care and Lab 4 credits. Introduction to the care of pulmonary patients. Focus on skills required and methods used to manage cardiopulmonary problems. Includes clinical practice of procedures and skills. PREREQ: RESP 200, BIOL 301, BIOL 302 and HCA 210. F

RESP 211 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: PSCI 315. COREQ: RESP 200, F, S

RESP 214 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 200, BIOL 301, BIOL 302 and HCA 210. S

RESP 231 Patient Assessment I 2 credits. Holistic approach to assessment of adult and pediatric patients in subacute/homecare settings. Special emphasis on assessment of the cardiopulmonary function. PREREQ: RESP 200 and RESP 214. Su

RESP 232 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 231. F, S

RESP 280 Case Management I 2 credits. Holistic approach to the management of adult and pediatric patients in subacute settings. Special emphasis on management of cardiopulmonary problems. PREREQ: RESP 211 and RESP 214. F

RESP 301 Mechanical Ventilators 4 credits. Exploration of operational characteristics of critical care, home care, transport, and neonatal ventilators. Includes clinical practice of procedures and skills. PREREQ: RESP 200 and RESP 214. S

RESP 310 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 280. F, S

RESP 320 Clinical Practice of Therapeutic Procedures I 5 credits. Focus on conducting respiratory care in the sub-acute setting. PREREQ: RESP 230 and RESP 280. S

RESP 325 Clinical Practice of Therapeutic Procedures II 3 credits. Focus on conducting respiratory care in the acute setting. PREREQ: RESP 320. Su

RESP 330 Clinical Practice of Therapeutic Procedures III 5 credits. Focus on conducting respiratory care in the acute setting. PREREQ: RESP 232 and RESP 310. F

RESP 335 Clinical Practice of Therapeutic Procedures IV 5 credits. Focus on conducting respiratory care in the acute and intensive care settings. PREREQ: RESP 330. S

Robots and Communication Systems Engineering Technology

6 to 6½ Semesters

Coordinator and Instructor: Slack
Instructors: R. Buffalo, Durschi, L. Larson, S. Larson, Maclure, Norton, Shepherd, Womack

One Advanced Technical Certificate, one Associate of Applied Science Degree, and one Bachelor of Applied Science Degree are available.

Objective: To provide students with the skills to become professional, highly skilled, broad-based electronics technicians who can work within an ever-changing arena—electronics.

Graduates will be able to install, maintain and repair equipment and circuit integrated in audio, video, wireless, digital and pulse electronic systems. It is, by design, a balance of analog and digital training with specialties in wireless telecomm and RF applications, microprocessor interfacing, digital and analog TV and component level circuit analysis.

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://electronics.isu.edu/elec_sys_tech.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.

All theory courses require concurrent enrollment in the laboratory courses in which those theories are applied.

Selection of the Electronics option for each accepted student in the Electronics Core Curriculum will occur in the second semester. Acceptance into particular options is based upon available openings and other factors such as a minimum 2.5 cumulative grade point average in core courses and attendance.

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 Electronic Systems Technology Program:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELSY 331</td>
<td>Laser Systems/Optics Theory</td>
<td>4 cr</td>
</tr>
<tr>
<td>ELSY 332</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. The student will then be allowed to repeat the course at the next available program opening.

Upon successful completion of Electronics (ELTR) 141, Applied Mathematics I, and ELTR 142, Applied Mathematics II, a student may enroll directly into an academic math course which requires MATH 147 as a prerequisite.


(6 Semesters)

Required Courses (see Electronics Core section for required Core courses):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELTR 269</td>
<td>Electronic Drafting</td>
<td>2 cr</td>
</tr>
<tr>
<td>ELSY 251</td>
<td>Systems Analog and Digital Theory</td>
<td>7 cr</td>
</tr>
<tr>
<td>ELSY 253</td>
<td>Systems Analog and Digital Laboratory</td>
<td>5 cr</td>
</tr>
<tr>
<td>ELSY 264</td>
<td>Introductory Calculus</td>
<td>4 cr</td>
</tr>
</tbody>
</table>

TOTAL: 20 cr
ELSY 265 Computer Fundamentals and Introduction to Programming 4 cr
ELSY 267 Radio Frequency Transmission Theory 7 cr
ELSY 268 Radio Frequency Transmission Laboratory 5 cr
ELSY 270 Electronic Drafting II 2 cr
ELSY 371 Advanced Math for Electronics 4 cr
ELSY 372 Calculus for Advanced Electronics 4 cr
ELSY 373 Advanced Digital Theory 5 cr
ELSY 374 Advanced Pulse Theory 5 cr
ELSY 375 Advanced Digital Laboratory 5 cr
ELSY 376 Advanced Pulse Laboratory 5 cr
TGE 158 Employment Strategies 2 cr

General Education Requirement:
ENGL 101 English Composition 3 cr
TOTAL: 104 cr

Associate of Applied Science Degree:
Robotics and Communication Systems Engineering Technology
(6 Semesters)

Required Courses (see Electronics Core section for required Core courses):
ELTR 269 Electronic Drafting I 2 cr
ELSY 251 Systems Analog and Digital Theory 7 cr
ELSY 253 Systems Analog and Digital Laboratory 5 cr
ELSY 264 Introductory Calculus 4 cr
ELSY 265 Computer Fundamentals and Introduction to Programming 4 cr
ELSY 267 Radio Frequency Transmission Theory 7 cr
ELSY 268 Radio Frequency Transmission Laboratory 5 cr
ELSY 270 Electronic Drafting II 2 cr
ELSY 371 Advanced Math for Electronics 4 cr
ELSY 372 Calculus for Advanced Electronics 4 cr
ELSY 373 Advanced Digital Theory 5 cr
ELSY 374 Advanced Pulse Theory 5 cr
ELSY 375 Advanced Digital Laboratory 5 cr
ELSY 376 Advanced Pulse Laboratory 5 cr
TGE 158 Employment Strategies 2 cr

General Education Requirements:
ENGL 101 English Composition 3 cr
Goal 3 3 cr
One of Goals 6, 7, 9, 10A, 11 or 12 3 cr
TOTAL: 114 cr

ELSY 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.

Please see descriptions for courses with the ELTR prefix in the Electronics Department section above.


ELSY 253 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. PREREQ: ELTR 156. COREQ: ELSY 264 and ELSY 251. F, S

ELSY 264 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 ELSY 251. PREREQ: ELTR 142 or equivalent. COREQ: ELSY 251 and ELSY 253. F, S

ELSY 265 Computer Fundamentals and Introduction to Programming 4 credits. Basic computer components and functions. Introduction to operating system file structures, including Microsoft Windows and Unix. Use Word, Excel and Powerpoint to create documents and presentations, and program with the VI Editor within Unix and Visual Basic. F, S

ELSY 267 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. F, S

ELSY 268 Radio Frequency Transmission Laboratory 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. F, S

ELSY 270 Electronic Drafting II 2 credits. Continuation of ELTR 269 with emphasis on block diagrams, schematic diagrams, and printed circuit board layout. F, S

ELSY 298 Special Topics 1-8 credits. Addresses special 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. Permission of the instructor is required. D


ELSY 332 Laser Systems/Optics Laboratory 4 credits. Practical application of theory and analysis in analyzing laser/optics systems. Su

ELSY 371 Advanced Math for Electronics 4 credits. Study of computer programming languages at the machine level, assembler level, and high level, a standard operating system, Unix, translation of numbers between number systems. F, S

ELSY 372 Calculus for Advanced 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 ELSY 374. Satisfies Goal 3 of the General Education Requirements. PREREQ: ELSY 262. F, S

ELSY 373 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

ELSY 374 Advanced Pulse Theory 5 credits. A study of analog/digital circuits used in the video studio, integrated circuit testers and computer systems. Introduction and analysis of a television studio system module, and individual analog/digital circuits will be covered. Practical application of circuits used in conjunction with Advanced Pulse Laboratory (ELSY 376). Discussion, lectures, classroom and lab demonstrations are used to help the student gain knowledge and troubleshoot equipment in large systems. F, S

ELSY 375 Advanced Digital Laboratory 5 credits. Practical application of topics covered in ELSY 371 and 373 while building, programming, and troubleshooting microprocessor and microcontroller based systems. F, S

ELSY 376 Advanced Pulse Laboratory 5 credits. Practical equipment and systems application of analog/digital circuits used in conjunction with Advanced Pulse Theory (ELSY 374). Operation of the lab is by an exploratory method with guides furnished by the instructor. Test results of these explorations will be maintained in reduced log form and will be presented in verbal form to other student technicians. One major student project is accomplished during the semester, evaluation, troubleshooting, and integration into the existing video studio or, integrated circuit tester or, computer systems. The student must give an oral and written presentation on the project. F, S

ELSY 384 Advanced Laser Systems/Optics Laboratory 3 credits. Practical application of advanced theory and analysis in analyzing laser/optics systems. PREREQ: ELSY 331 and ELSY 332. Su

Web Site Design and Management
(2 and 4-5 semester options)
Coordinator and Assistant Professor: Stroud
Instructor: Hunt

One Technical Certificate, one Associate of Applied Science degree, and one Bachelor of Applied Technology degree are available.

Graduates from the Web Site Design and Management program will possess the ability to produce and maintain large scale, highly visible, interactive professional Web sites for business and personal use. Web site design specialists perform tasks that enhance and maintain Internet and Intranet web sites, and use desktop publishing software to create business presentations, publications, and Internet-ready graphics. In addition, they incorporate communication, presentation skills, and teamwork as well as visual interface design, scripting languages, and advanced animation production techniques.

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/etech/websitedesign.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.

Technical Certificate: Web Site Design and Management
(2 Semesters)
Required Courses:
BI 170 Introduction to Computers 3 cr
ENGL 101 English Composition 3 cr
TGE 158 Employment Strategies 2 cr

WDM Courses
WDM 176 Desktop Publishing/Multimedia 3 credits. This course introduces the use of Corel Suite, Corel Draw, Adobe, and presentations software to format documents including brochures, business cards, newsletters, advertisements, letterheads, web pages, etc. Students will also obtain skills in creating presentations utilizing various multimedia technology. PREREQ: BI 170, or permission of instructor. F, S, Su
WDM 177 Principles of HTML and XML 4 credits. This course is designed to provide students with the vocabulary and concepts required to develop a Web site. Students will be able to create, link, and validate XML documents to cascading style sheets, design XML schemas, and utilize JavaScript to create cookies, etc. PREREQ: BI 170 or permission of instructor. F

WDM 179 Web Site Design Authoring Tools 3 credits. This course emphasizes planning and publishing professional web sites using software such as Macromedia Dreamweaver and Fireworks integrated features. Students produce integrated professional web sites with database functionality. Advanced features of Fireworks will be utilized to create, modify, and optimize static and animated graphics. PREREQ: WDM 177 or permission of instructor. S

WDM 180 Advanced Digital Imaging for the Web 3 credits. Course utilizes software such as Adobe Photoshop and Illustrator to perform complex image editing, optimize graphics, create slices for rollovers and animation for Web sites within a browser window or multimedia presentation. Students will create high quality animation, sound, and text on the Web. PREREQ: WDM 176, WDM 177, and WDM 178. F

WDM 181 Cascading Style Sheets Fundamentals 2 credits. In-depth coverage of how cascading style sheets interact with HTML and HTML authoring tools to design appealing, innovative Web sites. Creation of style sheets that are cross-platform compatible and match display devices such as handheld computers, cell phones, and similar instruments. PREREQ: WDM 177 and WDM 179. F

WDM 183 Web Site Dynamics and Scripting: Flash 4 credits. This course utilizes software such as Macromedia Flash to produce low-bandwidth animations and complex Web sites. Students will synchronize animation and sound, create custom cursors, track user interactions, and develop dynamic and interactive Web sites by utilizing ActionScript and streaming content. PREREQ: WDM 176, WDM 177, and WDM 178. S

WDM 185 Digital Media Applications 3 credits. Course encompasses beginning and intermediate concepts of digital media. Students will create high quality animation, sound, and video utilizing current digital media technology. Basic procedures for managing media, i.e., importing and exporting, converting file types, and controlling file sizes are covered. PREREQ: WDM 176 and WDM 178. F

WDM 187 Web Graphics and Animation 4 credits. Course utilizes software such as Adobe Photoshop and Illustrator to perform complex image editing, optimize graphics, create slices for rollovers and animation for Web sites within a page layout or multimedia presentation. Students will utilize techniques for creating complex multilayered vector graphics, textures for backgrounds, and special effects with type. F

WDM 188 Coding with XML 2 credits. Builds on previous XML coding knowledge. Students will use XML to manipulate and share data. Includes XSLT and linking to Cascading Style Sheets. S

WDM 190 Advanced Digital Imaging for the Web 3 credits. Course utilizes industry-leading software to perform advanced image processing, image optimization, special effects, and complex multimedia techniques for Web sites. PREREQ: BI 170 and WDM 187. F

WDM 192 Database Applications 3 credits. Introduction to commands, functions, and operators for extracting data. Includes retrieving, sorting, and manipulating data. Su
This program requires students to achieve certain grades in order to advance each semester. Specific information is available in the program’s student handbook. Students must pass each welding core course with a letter grade of no less that a C (2.0) before continuing in the program.

Technical Certificate: Welder General

(2 Semesters)

Required Courses:

<table>
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<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>WELD 131</td>
<td>12 cr</td>
</tr>
<tr>
<td>WELD 132</td>
<td>12 cr</td>
</tr>
<tr>
<td>WELD 140</td>
<td>2 cr</td>
</tr>
<tr>
<td>WELD 141</td>
<td>2 cr</td>
</tr>
<tr>
<td>WELD 142</td>
<td>2 cr</td>
</tr>
<tr>
<td>WELD 143</td>
<td>2 cr</td>
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<tr>
<td>TOTAL:</td>
<td>32 cr</td>
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</table>

Advanced Technical Certificate: Welder-Fitter

(4 Semesters)

Required Courses:

<table>
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<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD 131</td>
<td>12 cr</td>
</tr>
<tr>
<td>WELD 132</td>
<td>12 cr</td>
</tr>
<tr>
<td>WELD 140</td>
<td>2 cr</td>
</tr>
<tr>
<td>WELD 141</td>
<td>2 cr</td>
</tr>
<tr>
<td>WELD 142</td>
<td>2 cr</td>
</tr>
<tr>
<td>WELD 143</td>
<td>2 cr</td>
</tr>
<tr>
<td>WELD 231</td>
<td>13 cr</td>
</tr>
<tr>
<td>WELD 232</td>
<td>13 cr</td>
</tr>
<tr>
<td>WELD 241</td>
<td>3 cr</td>
</tr>
<tr>
<td>WELD 243</td>
<td>3 cr</td>
</tr>
<tr>
<td>TOTAL:</td>
<td>64 cr</td>
</tr>
</tbody>
</table>

Associate of Applied Science Degree: Welder-Fitter

Required Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD 131</td>
<td>12 cr</td>
</tr>
<tr>
<td>WELD 132</td>
<td>12 cr</td>
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<tr>
<td>WELD 140</td>
<td>2 cr</td>
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<tr>
<td>WELD 141</td>
<td>2 cr</td>
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<tr>
<td>WELD 142</td>
<td>2 cr</td>
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<tr>
<td>WELD 143</td>
<td>2 cr</td>
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<tr>
<td>WELD 231</td>
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<tr>
<td>WELD 232</td>
<td>13 cr</td>
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<td>WELD 243</td>
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</tr>
<tr>
<td>ENGL 101</td>
<td>3 cr</td>
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<tr>
<td>Goal 2</td>
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<tr>
<td>Goal 3</td>
<td>3 cr</td>
</tr>
<tr>
<td>Total</td>
<td>80 cr</td>
</tr>
</tbody>
</table>

WELD Courses

Students who demonstrate adequate academic skill to succeed in the occupational content courses of the program will be given an “S” grade for WELD 100 and will not be required to attend the initial session.

WELD 105 Welding 1-4 credits. Introduction to and practice of arc welding. Metals and various types of welds. D

WELD 131 Welding Practice I 12 credits. Welding practice techniques for successful fillet and groove welds in all positions utilizing SMAW E7018, GMAW ER70S-6, and FCW E71T-1 processes and filler metals. F, S

WELD 132 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 131. F, S

WELD 140 Welding Theory 2 credits. Study of arc welding processes 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

WELD 141 Mechanical Drawing 2 credits. Study of trade symbols, dimensions from working drawings of the trade. Identification of lines, views, materials and dimensions; study of basic drawings of welding trade. S

WELD 143 Shop Math 12 credits. Basic study of trade math concentrating on basic arithmetic, common fractions, decimals, ratios, percentages, square root, and appropriate conversions as they apply to the welding trade. F, S

WELD 159 Arc Welding 1-8 credits. Special course with emphasis on shop practice in the general area 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 231 Welding Practice III 13 credits. Low hydrogen, stainless steel, and pipe welding techniques in shop applications. PREREQ: WELD 152. F

WELD 232 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 231. F

WELD 241 Metal Layout 3 credits. Introduction to geometric construction, principles of layout, basic slide charts and tables, and basic slide rules. PREREQ: WELD 141. F

WELD 243 Shop Math II 3 credits. Continuation of WELD 143, with introduction to specific trade formulas, basic algebra, proportions, right
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 100A 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 025. Not eligible for academic credit. D
TGE 100C 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 100G Grammar 4 credits. Course is designed to provide an introduction to and analysis of the basic grammatical principles of the English language. Application of these principles to spoken and written English is introduced. Course is for students whose occupations require language editing. D
TGE 100I Algebra I 4 credits. Course is designed to meet individual student needs. D
TGE 100M Math 4 credits. Course provides an overview of complex fractions, decimals, and percents with an emphasis on practical application. D
TGE 100R Reading 3 credits. Course is competency based and thus addresses the performance of the students. Speed and comprehension are emphasized, with critical textual interpretation as the main objective. D
TGE 100S Strategies for Learning 2 credits. Course is designed to provide an introduction to and analysis of the basic grammatical principles of the English language. Application of these principles to spoken and written English is introduced. Course is for students whose occupations require language editing. D
TGE 100T Technical Science 2 credits. Course provides instruction in the development of 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 100W Writing 3 credits. Clear writing in standard, edited American English. Equivalent to ENGL 090. Not eligible for academic credit. D

TGE Core Courses
COMM 101 Principles of Speech 3 credits. (see description in the Department of Communication and Rhetorical Studies, in the College of Arts and Sciences section of this Catalog.)
ENGL 101 English Composition, and ENGL 102 Critical Reading and Writing (see descriptions in the Department of English and Philosophy, in the College of Arts and Sciences section of this Catalog.)

MATH 123 Mathematics in Modern Society (see description in the Department of Mathematics, in the College of Arts and Sciences section of this Catalog.)
TGE 151 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 152 Technical Writing II 2 credits. Course provides instruction in application of formal technical report writing strategies and fundamentals of research. D
TGE 158 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. D
TGE 162 Keyboarding 1 credit. Course enables the development of alphabetic and numeric information input through touch keyboarding. Open exit is available when student reaches proficiency rate established by program area. D
TGE 257 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: Margaret Jacob
Instructors: Clegg, Katsilometes, Ostin
(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 top floor of the Roy F. Christensen Building (building #48) and at outreach sites in seven 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. 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 administrators Official Practice Tests as preparation for the GED. Students may combine the GED with the government course taken at the center to obtain a High School Equivalency Certificate from the State of Idaho. 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: Christine Brower
(208) 282-2454
Email: cnd@isu.edu
http://www.isu.edu/cnd/

The Center for New Directions (CND) provides educational program information, student support services, and short term career and mental health counseling by Licensed Professional Counselors and supervised counseling interns. The CND also provides resource and support services through a variety of workshops, classes, and groups designed to assist individuals as they enter and complete training and prepare for job placement. The CND offers scholarships for students who enroll in non-traditional technology programs. All services are confidential and provided at no cost. Contact the CND for information about services on the Pocatello campus and at Idaho State University Centers located in Blackfoot, Montpelier, Preston, Soda Springs, and in the Fort Hall Education Center.

Student Resource Center
(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. A writing lab is available to accommodate students who need help in writing and researching course assignments. A math lab, staffed by an instructor, is available two days per week.

The Resource Center encourages students to seek help at the beginning of each academic semester to ensure success.

WORKFORCE TRAINING
Joseph H. Fleishman, Director
WORKFORCE TRAINING
College of Technology
Roy F. Christensen Building
921 S 8th Ave Stop 8380
Pocatello, ID 83209-8380
(208) 282-3372
http://workforcetraining.isu.edu/

Class offerings include specialized vocation courses during non-traditional hours and customized training for business and industry. 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.

In addition to short-term courses, three A.A.S. Degree programs are offered in specialized areas. They are as follows:

Fire Services - A.A.S.
This Associate of Applied Science Degree is designed for the student who has a current Idaho journeyman license, has proof of completed apprenticeship, and proof of registration with Idaho Department of Labor and Industrial Services. Call WORKFORCE TRAINING at (208) 282-3372.

Electrical Apprenticeship - A.A.S.
This Associate of Applied Science Degree is designed for the student who has a current Idaho journeyman license, has proof of completed apprenticeship, and proof of registration with Idaho Department of Labor and Industrial Services. Call WORKFORCE TRAINING at (208) 282-3372.

Plumbing Apprenticeship - A.A.S.
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.

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.
Southeast Idaho
Region 5 Tech Prep

Coordinator: Ann Marie Corbridge

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 professional/technical program that coordinates what is taught in high school with the postsecondary curriculum. Students enrolled in approved high school programs can receive postsecondary credit toward technical or professional degrees. Students may enroll in some professional/technical classes for concurrent college credit while still in high school. This process allows students to begin working on an Associate of Applied Science (A.A.S.) Degree or certificate while still in high school. The A.A.S. Degree articulates into Idaho State University’s Bachelor of Applied Technology (B.A.T.) 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 earn concurrent college credits while in high school or in articulating credits from high school to the College of Technology after graduation. Students are encouraged to contact the office for further information.
Institutes

Biomedical Research Institute

Director and Professor: Daniels

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 Directors and Professors: 
Lohse, A. Strickland
Associate Professors: Cady, Sammons, J. Strickland
Research Associate Professor: Laxminarayan
Assistant Professors: Frost, Springer
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
- 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) and the Center for Innovative Technology in Mathematics, Science, and Social Sciences Learning (CITI-MSSSSL). The IRI charter includes development of interdisciplinary AA, AS, BA, BS, Masters and Doctoral programs as well as concentrations in Information Assurance.

ARCHAEOLOGICAL INFORMATICS

CITI-AI – Center for Innovative Technology in Archaeological Informatics. The CITI-AI leads research in the organization and analysis of archaeological information. It creates and maintains active partnerships within the archaeological community and serves as an interdisciplinary center of activity uniting basic informatics research and modeling within the Informatics Research Institute, Idaho State University, and its affiliated faculty. The Center is directed by E.S. Lohse, Professor of Anthropology and Division Head for Anthropology, Idaho Museum of Natural History.

EDUCATIONAL INFORMATICS

CITI-MSSSSL – Center for Mathematics, Science, Social Sciences, and Technology Learning. The CITI-MSSSSL focus is on PK-16 learning in the current environment of accountability. The faculty of CITI-MSSSSL, directed by Professor A.W. Strickland, collaborates with other institutions to explore technology and informatics solutions to improve learning. Curriculum development, assessment, data management, and teacher training are but a few of the services offered by CITI-MSSSSL. The staff of CITI-MSSSSL are experienced in all aspects of instructional systems design and the implementation. The center creates and maintains active partnerships with public schools and higher education institutions interested in improving the quality of learning within our educational systems.

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-MS-SSL. In addition, the Informatics Research Institute offers formal concentrations in Information Assurance for Baccalaureate, Masters, and Doctoral Programs. These concentrations may be above the regular degree requirements documented by the DHS/CNSS approved Certificates offered by Idaho State University.

Certificates for Concentrations:

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

Program of Study:

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

- **CNSS 4011** -- Students in the Computer Information System major may take CIS 411, a minimum of 6 hours of 419 (Informatics Practicum) or 493 (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 411, CIS 412, CIS 413, CIS 414, CIS 415
- **CNSS 4013** -- Students certifying for 4013 must complete CIS 411, CIS 413, and CIS 485
- **CNSS 4014** -- Students Certifying for 4014 must complete CIS 411, CIS 414 and CIS 413
- **CNSS 4015** -- Students Certifying for 4015 must complete CIS 411, CIS 415 and CIS 414

Institute of Nuclear Science and Engineering

Idaho State University has established an Institute of Nuclear Science and Engineering (INSE) with approval from the Idaho State Board of Education in 2003. The Institute is a collaborative entity among ISU, University of Idaho and Boise State University. Under the INSE’s administrative umbrella, the three universities jointly focus on nuclear science and engineering education at the combined Idaho Falls campus. Nuclear-related research in conjunction with the new Idaho National Laboratory is also coordinated through the INSE at University Place in Idaho Falls.

The 2+2 scholars program is a special opportunity for students interested in pursuing a Bachelor of Science degree in nuclear engineering. While Idaho State University has offered a nuclear emphasis for its interdisciplinary engineering degree for many years, it established the specific Nuclear Engineering B.S. degree in 2004 at the request of the U.S. Department of Energy. The University of Idaho and Boise State University are working together with ISU through the “2 + 2” program: 2 years at the main campus of one of the three universities and the second 2 years in Idaho Falls at the University Place campus. The reason for the location is to have special opportunities for the students in conjunction with the Idaho National Lab, which is a partner in this effort as well. Scholarship money, donated by AREVA to jump start the program, will be awarded to this elite group of students. Funding for the entire two years in Idaho Falls will cover tuition and fees, a book allowance and a small stipend. For further information and a scholarship application, visit the Institute’s scholarship web page at [http://www.isu.edu/departments/inse/ntp.html](http://www.isu.edu/departments/inse/ntp.html).
Idaho State University Administration

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Richard Jacobsen .................................................. Dean, College of Engineering ................................................(208) 282-2902
Bessie Katsilometes .................................................. Dean, Academic Programs, Idaho State University-Boise ..........(208) 373-1708
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(Vacant) .................................................. Director, Affirmative Action ..........................................................(208) 282-3973

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Kent S. Kunz .................................................. Director, Governmental Relations .................................................(208) 334-2257
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Tom Luna ............................................................................ State Superintendent of Public Instruction (Ex-officio Member)
Milford Terrell .................................................................... Member
Don Soltman .......................................................................... Member
Richard Westerberg ............................................................. Vice-President

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.


Adamcik, Barbara, A.* Associate 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)


Adkison, Stephen Ray,* Associate Vice President for Academic Programming and Review; Associate Professor, English and Philosophy. B.A. 1986, Montana State University; M.A. 1997; Ph.D. 2000, University of Nevada, Reno. (2000)

Adler, David G.,* Professor, Political Science. B.A. 1976, Michigan State University; Ph.D. 1982, University of Utah. (1985)


Aho, Ken A., Assistant Lecturer, Biological Sciences. (2007)


Anderson, Curtis W.,* Associate Professor, Physiology; 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,* Coordinator, Family Nurse Practitioner Program; 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)

Ashton, Carol Ann,* Associate Dean and Director, School of Nursing; Associate Professor, Nursing. B.S. 1972; M.S. 1975, The Ohio State University; Ph.D. 1989, University of Utah. (2001)


Averett, Colby J., Coordinator and Instructor, Electrical Technician Program. (2007)

Aytes, Kregg John,* Associate Dean, College of Business; Professor, Computer Information Systems. B.S. 1984, Ph.D. 1993, University of Arizona. (1993)

Baergen, Ralph,* Professor, Philosophy; Chair, Human Subjects Committee. B.A. 1983, University of Manitoba; M.A. 1989, Ph.D. 1990, Syracuse University. (1994)


Bañales, Victoria, Director, Division of Continuing Education and Conferencing Services; Instructor. (2008)


Bearden, Shawn E.,* Associate Professor, Physiology. B.S. 1994, University of Virginia; M.S. 1996, George Mason University; Ph.D. 2000, Florida State University. (2005)


Beaty, Lawrence H., Coordinator and Instructor, Energy Systems Programs. (2006)


Beedasy, Jaishree, Research Assistant Professor, Institute of Rural Health.B.Sc. 1989, University of Mauritius, Mauritius; M.Sc. 1993, University of York (UK); Ph.D. 2002, University of Mauritius, Lancaster. (2005)

Bennett, Instructor, Counseling. (2008)

Bennett, Byron L.,* Assistant Professor, Chemistry. B.A. 1989, Cedarville College; Ph.D. 1997, University of Wyoming. (2007)

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Phillips, Barbara “BJ,” Visiting Assistant Professor, Chemistry. (1994)
Picard, Robert R.,* Associate Dean, College of Business; Department Chair and Professor, Accounting. B.S. 1976, Northern Michigan University; M.B.A. 1984, University of St. Thomas; Ph.D. 1994, University of Kentucky. (1994)

Piers, Donald S.,* Professor, Social Work. B.S. 1969, University of Wisconsin, Whitewater; M.S.W. 1971, Tulane University; D.S.W. 1984, University of California, Los Angeles. (1985)


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Pratt, Stephen N., Chair, Department of Military Science (not an ISU employee) (2006)

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Quarder, Henrike Swantje, Assistant Lecturer, Chemistry. (1995)

Quigley, Shawn Patrick, Assistant Lecturer, Education. (2003)


Ralphs, James E., Clinical Assistant Professor, Physical Therapy. (2009)


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Reed, Jason D., Assistant Lecturer, Mathematics. (2005)

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Wright, Derek, Faculty Physician, Family Medicine. B.A. 1992, Brigham Young University; M.D. 1996, University of Utah. (2007)
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Adams, Michelle, Music
Alexander, Kathy, Physical and Occupational Therapy
Alexander, Linda, Mathematics
Alvarez, Amando, Languages and Literatures
Atkins, Cheri, Psychology
Babcock, Ryan, Art and Pre-Architecture
Banyas, Thomas P., Music
Blair, Charlotte, Mass Communication
Bolinger, Instructor, Counseling.
Bono, Leciel, Dental Hygiene
Bowers, Paul Kendall, Communication Sciences & Disorders, and Education of the Deaf
Brief, Colin, Music
Bringhurst, Eric L., Dental Hygiene
Bringhurst, G. Louis, Dental Hygiene
Brown, Bruce B., Finance
Burke, Rebecca, Communication Sciences & Disorders, and Education of the Deaf
Call, Bradley A., Marketing
Call, Whitney Lin, Sport Science and Physical Education
Chambers, Robert E., Political Science
Christensen, Keith, Sport Science and Physical Education
Christensen, Tony D., Mathematics (also Affiliate Faculty, Education)
Christensen, Vickie J., English
Christofferson, John Michael, Art
Clarke, George William, Physics
Coleman, Elijah M., English and Philosophy
Collins, Danielle, Teacher Education
Crepeau, John C., Mechanical Engineering
Curtis, Carri P., Sport Science and Physical Education
Dean, Patricia A., Anthropology
DeVeaux, Linda, Physics
Dewey, David Neal, Mathematics
Dicie, Dina, Mathematics
Donovan, William P., Jr., English
Drake, James, Music
Drecksel, Jacqueline A., Sport Science and Physical Education
Duggan, Maureen Karen, Communication Sciences & Disorders, and Education of the Deaf
Eisenhauer, Laurie, Dental Hygiene
Emfield, Scott, History
Espy, Michelle, Physics
Feige, Juliet, Art and Pre-Architecture; Teacher Education
Flowers, Terron L., Dance
Frost, Amber Nuckols, Dance
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Gonzalez-Aller, Carolina M., Chemistry
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Halpenny-Weathersby, Anne, Chemistry
Hamilton, LaChelle, Sport Science and Physical Education
Harker, Yale, Physics
Harmon, Kenneth S., Mathematics
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Hawkey, McKenzie K., Sport Science and Physical Education
Head, Lori J., Sport Science and Physical Education
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Hill, Chelsie A., Sport Science and Physical Education
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Hooper, Jennifer J., Education
Horwith, Susan, Mathematics
Horrocks, Daniel T., Theatre
Horwith, Susan M., Mathematics
Hughes, Susan, Music
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Jantz, Jolie O., Pharmacy Practice and Administrative Sciences
Johns, Benjamin Lee, Communication and Rhetorical Studies
Johnsen, Sanae Y., Languages and Literatures
Jones, James, Physics
### Affiliate Faculty

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
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<tr>
<td>Abel, Grace</td>
<td>Nursing</td>
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<td>Aggers, Patricia</td>
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<td>Albrecht, Mark J.</td>
<td>Sociology, Social Work, and Criminal Justice</td>
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<td>Alexander, Coralyn J.</td>
<td>Physician Assistant Studies</td>
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<td>Pharmacy Practice and Administrative Sciences</td>
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<td>Alexis, George</td>
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<td>Allen, Arthur</td>
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<td>Communication Sciences &amp; Disorders, and Education of the Deaf</td>
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<td>Aly, Geosciences</td>
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<td>Nursing; Physician Assistant Studies</td>
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<td>Anderson, David Howard</td>
<td>Pharmacy Practice and Administrative Sciences</td>
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<td>Andrus, Joseph M.</td>
<td>Pharmacy Practice and Administrative Sciences</td>
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<td>Apel, William A.</td>
<td>Biological Sciences</td>
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<td>Armour, William</td>
<td>Physician Assistant Studies</td>
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<td>Arredondo, Roel A.</td>
<td>Pharmacy Practice and Administrative Sciences</td>
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<td>Aumeier, Steven</td>
<td>Engineering</td>
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<td>Babb, Kris</td>
<td>Nursing; Physician Assistant Studies</td>
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<td>Bailey, Corrine</td>
<td>Pharmacy Practice and Administrative Sciences</td>
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<td>Baines, David</td>
<td>Family Medicine</td>
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<tr>
<td>Baker, Clay</td>
<td>Pharmacy Practice and Administrative Sciences</td>
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<td>Baker, Michael</td>
<td>Family Medicine; Pharmacy Practice and Administrative Sciences; Physician Assistant Studies</td>
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<td>Ballard, JoEtte</td>
<td>Pharmacy Practice and Administrative Sciences</td>
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<td>Banks, Todd</td>
<td>Pharmacy Practice and Administrative Sciences</td>
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<td>Barefoot, Joseph L.</td>
<td>Nursing</td>
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<td>Barrett, Paul</td>
<td>Pharmacy Practice and Administrative Sciences</td>
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<td>Bartels, Cathy</td>
<td>Pharmacy Practice and Administrative Sciences</td>
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<td>Bartschi, Terrell E.</td>
<td>Pharmacy Practice and Administrative Sciences</td>
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<td>Bateman, J. Michael</td>
<td>Family Medicine; Physician Assistant Studies</td>
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<td>Bearden, Trudy</td>
<td>Pharmacy Practice and Administrative Sciences</td>
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<td>Beardsley, Paul</td>
<td>Biological Sciences</td>
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<td>Bechtl, Randy L.</td>
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<td>Biological Sciences</td>
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<td>Belig, Jacqueline</td>
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<td>Belau, Frederick W.</td>
<td>Nursing; Physician Assistant Studies</td>
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<td>Belknap, Barbara A.</td>
<td>Communication Sciences &amp; Disorders, and Education of the Deaf</td>
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<td>Sociology, Social Work, and Criminal Justice</td>
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<td>Berheim, Dawn Stilley</td>
<td>Pharmacy Practice and Administrative Sciences</td>
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<td>Billings, Patricia Collins</td>
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<td>Dental Sciences</td>
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<td>Bird, Breezy</td>
<td>Radiographic Science</td>
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<td>Birkenhagen, W. Kurt</td>
<td>Family Medicine</td>
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<td>Bitton, Sidena</td>
<td>Communication Sciences &amp; Disorders, and Education of the Deaf</td>
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<td>Black, Catherine</td>
<td>Biological Sciences</td>
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<td>Pharmacy Practice and Administrative Sciences</td>
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<td>Blackburn, Brandon</td>
<td>Physics</td>
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<td>Blacker, Paul B.</td>
<td>Research</td>
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<td>Blacksher, Jay</td>
<td>Physician Assistant Studies</td>
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<td>Blair, Benjamin</td>
<td>Family Medicine; Physician Assistant Studies</td>
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<td>Blair, Paula</td>
<td>Pharmacy Practice and Administrative Sciences</td>
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<td>Bleich, Vernon</td>
<td>Biological Sciences</td>
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<td>Blew, Roger</td>
<td>Biological Sciences</td>
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<td>Boe, Roger W.</td>
<td>Family Medicine</td>
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<td>Boeger, Maria Regina</td>
<td>Torrez, Biological Sciences</td>
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<td>Boeger, Walter Antonio Pereira</td>
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<td>Boehme, Sabrina</td>
<td>Pharmacy Practice and Administrative Sciences</td>
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<td>Bond, Diana</td>
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<td>Borchert, Beverly K.</td>
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<td>Bradford, Andrew R.</td>
<td>Family Medicine; Nursing; Physician Assistant Studies</td>
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<td>Pharmacy Practice and Administrative Sciences</td>
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<td>Brady, Terry</td>
<td>Dental Sciences</td>
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<td>Branahl, James E.</td>
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<td>Brandon, Maureen</td>
<td>Biological Sciences</td>
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<td>Brinthurst, Michael Ken</td>
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<td>Britain, Elizabeth</td>
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<td>Broadhead, Mark Hall</td>
<td>Family Medicine; Pharmacy Practice and Administrative Sciences; Physician Assistant Studies</td>
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<td>Broberg, Jennifer</td>
<td>Radiographic Science</td>
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<td>Brooke, Peter</td>
<td>Sociology, Social Work, and Criminal Justice</td>
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<td>Brown, Douglas</td>
<td>Physician Assistant Studies</td>
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<td>Dental Sciences</td>
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<td>Bryant, John P.</td>
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<td>Brydon, William</td>
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<td>Bubalo, Joseph S.</td>
<td>Pharmacy Practice and Administrative Sciences</td>
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<td>Buitrago, Martha</td>
<td>Family Practice Residency Program</td>
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</table>
Bunde, Carolyn, Biological Sciences
Burch, John B., Biological Sciences
Burns-Youren, Barbara, Nursing
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Coker, Steven Lloyd, Family Medicine
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Colwell, Frederick S., Biological Sciences
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Condie, Helen, Associate Professor, Home Economics. 1966-1988
Cowles, Lois Anne, Associate Professor, Sociology, Social Work, and Criminal Justice. 1993-2003
Craven, Evelyn, Professor, Education. 1963-1986
Cresswell, Donald J., Associate Professor, Mathematics. 1968-2000
Cullen, Arthur, Associate Professor, Education. 1970-1990
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. 1974-2008
Dolsen, Arthur, Professor, Foreign Languages. 1983-2009
Downing, Joan K., Public Services Director, Library (equivalent rank, Professor). 1969-1986
Dundas, Mary L.,* Director, Dietetic Internship Program; Professor, Dietetics. 1996-2009
Eastman, Philip, Vice President for Financial Services. 1956-1988
Edgar, Thomas E., Professor, Counselor Education. 1966-1987
Edwards, Marilyn, Instructional Program Coordinator, Culinary Arts Technology. 1966-1997
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
Fortsch, David E., Senior Lecturer, Geosciences 1974-2004
Foster, Richard H., Jr., Professor, Political Science. 1973-2008
Galizia, Virginia, Associate Dean, College of Pharmacy; Professor, Pharmacy Practice and Administrative Sciences. (1996-2002)
Gantt, Camewell 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
Goetsch, Robert W., Professor, Pharmaceutics. 1965-1997
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


Helfant, Mary Linda, Associate Professor, Journalism. 1948-1964

Herzog, Anita, Professor, Dental Hygiene. 1978-2008

Hill, Linda Charlotte, Associate Professor, Mathematics. 1976-2006

Hillyard, Ira W., Professor, Pharmacology. 1969-1991

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

Hogge, Donna, Associate Professor, Physical Education. 1949-1984

Holte, Karl E., Professor, Botany; Curator, Museum. 1965-1997

House, Edwin W., Chief Research Officer; Professor, Physiology. 1966-2004

House, Janet G., Associate Professor, Mass Communication. 1985-2002

Huck, Wilbur, Associate Professor, English. 1957-1990


Hurley, Stephen C., Professor, Pharmacy Practice and Administrative Sciences. 1976-2006


Jacob, Wilmer F., Professor, English. 1947-1971

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

Jensen, Mary Donna, Associate Professor, English. 1964-1989

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

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, William L., Professor, Philosophy. 1960-1994

Kirkpatrick, David, Professor, Military Science, Director of Housing. 1951-1955, 1958-1981

Kritsky, Delane C., Associate Dean, College of Health Professions; Professor, Health and Nutrition Sciences and Biological Sciences. 1974-2008

Laurence, Dennis, Instructor, Upholstery. 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, Marcia L., Professor, Dance. 1977-2001

Longmore, Dean R., Professor, Department of Finance. 1978-2001

Luckey, Angela S., Associate Professor, Educational Foundations. 1996-2009

Lu, Joseph, Professor, Libraries. 1972-1992

Mackenzie, Frances, Assistant Professor. 1969-1989

Marcum, R. Laverne, Professor, Education. 1969-1984

Marley, Bert, Professor, History. 1967-1989

Martindale, Charlene, Associate Professor, English/Instructor-Coordinator, Business Communication. 1970-1999

Matthews, Leroy J., Professor, Psychology. 1968-2000

Mauch, John E., Professor, Journalism. 1971-1999

Maughan, Ralph B.*, Professor, Political Science. 1971-2007

McCune, Joan H., Professor, Microbiology. 1980-2001

McCune, Ronald W., Professor, Biochemistry. 1970-2004

McGee, Shanna, Professor, Psychology. 1964-1985

McRoberts, Jacqueline, Associate Professor, Nursing. 1981-2005

Millis, William, Professor, Business. 1971-1983


Mullin, Anne E., Associate Professor, English. 1990-2000

Myers, Rosemary N., Director, Individualized Education Programs; Assistant Professor, English. 1960-1999

Nickisch, Craig W., Professor, Foreign Languages. 1988-2004

Nilson, Douglas C., Associate Professor, Political Science. 1989-2009

Noakes, Sandra D., Assistant Professor, Physical Education. 1966-2002

Ore, H. Thomas, Professor, Geology. 1963-1997

Parker, Barry R., Professor, Physics. 1967-1997

Parker, Stephen K., Associate Professor, Mathematics. 1972-2002

Pawar, Sheelwant B., Professor, Management. 1967-1999
Pehrsson, Robert S.,* Professor, Teacher Education. 1980-2003
Price, Joseph, Professor, Physics. 1959-1992
Priddy, Kathleen S., Senior Instructor, Office Technology. 1976-2005
Ronald, Bruce P., Professor, Chemistry. 1968-2001
Rose, Fred L., Professor, Biological Sciences. 1969-2002
Rucker, Jack, Director, School of Vocational-Technical Education. 1955-1976
Ruckman, JoAnn S., Co-director, Women Studies Program; Professor, History. 1974-2001
Rush, Robert, Clinical Associate Professor, Family Practice Residency Program and School of Nursing
Sagness, Richard L., Director, Office of Clinical Experiences and Student Services; Professor, Teacher Education. 1979-1999
Sahilberg, Jeanne H., Instructor, Office Occupations. 1667-1990
Salzman, Stephanie, Professor, Teacher Education. 1986-2002
Sato, Alyce, Associate Professor, Nursing. 1976-2004
Saul, William E., Professor, Botany. 1955-1985
Schneider, Audrey D. (Weston), Associate Professor, Speech-Language Pathology. 1990-2005
Schow, H. Wayne, Professor, English. 1967-1999
Schow, Ronald L., Professor, Audiology. 1975-2007
Scott, Darrell E., Assistant Dean, College of Business; Senior Lecturer, Marketing. 1970-2007
Schwendig, Warren Lee, Professor, Marketing. 1968-2003
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. 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
Stocks, Anthony, Chair and Professor, Anthropology. (1979-2006)
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, 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
Vegors, Stanley, Professor, Physics. 1958-1992
Vitteto, Dennis, Master Instructor, Electronic Systems Technology. 1976-2003
Walsh, Dennis M., Professor, English. 1979-2004
Walsh, Mary Ellen,* Professor, English. 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
Wiegand, Gayl H., Professor, Chemistry. 1965-2004
Williams, Thomas, Professor, Mathematics. 1954-1984
Wilson, Albert E.,* Professor, Engineering and Nuclear Science, 1966-1995
Wissa, Maher F., P.E., P.L.S., Professor, Geomatics Technology. 1993-2008

Intercollegiate Athletics–Directors and Coaches
Alexander, Geoff, Assistant Coach, Men’s Basketball
Amrine, Steve, Assistant Coach, Football
Brossman, Christa N., Assistant Coach, Women’s Basketball
Brown, Michael A., Assistant Coach, Men’s Basketball
Bushman, Lisa, Assistant Coach, Volleyball
Campbell, Mark, Assistant Strength Coach
Cullen, Joe, Assistant Coach, Football
Falevai, Junior, Assistant Coach, Football
Gibson, Allison, R., Head Coach, Women’s Soccer
Goeltz, Robert, Head Coach, Tennis
Graziano, Nancy, Associate Athletic Director
Green, Jordan, Associate Head Coach, Women’s Basketball
Hineline, Aaron, Assistant Coach, Football
Hofmaier, David, Head Strength Coach
Hofmaier, Hillary, Director, Spirit Squad
Hogan, Becky, Assistant Coach, Women’s Soccer
Janssen, Brian, Head Coach, Track and Field
Jensen, Brian, Assistant Coach,
Football

Kopp, Kalee L., Director, Intercollegiate Athletics Administration

Litchfield, Paul, Assistant Coach, Track and Field

Massengale, Lindsey, Assistant Coach, Women’s Soccer

Miller, Drew, Assistant Coach, Football

Molitor, David, Director, Golf

Nielsen, Dave, Head Coach, Track

Newlee, Jon, Head Coach, Women’s Basketball

O’Brien, Joe, Head Coach, Men’s Basketball

Okoh, Jemre, Assistant Coach, Tennis

Orrthmann, Mike Assistant Coach, Football

Petersen, Gavin, Associate Head Coach, Women’s Basketball

Poulson, Jackie, Assistant Coach, Track and Field

Pugmire, Rance, Senior Associate Athletic Director

Rhodes, Rodrick, Assistant Coach, Men’s Basketball

Robinson, Mika, Assistant Coach, Volleyball

Smaha, Ryan, Assistant Coach (Graduate Assistant), Football

Sololewsky, Seton, Head Coach, Women’s Basketball

Stocking, Larry, Head Coach, Softball

Strandley, Brian, Assistant Coach, Football

Swanson, Steve, Assistant Coach, Men’s Basketball

Tingey, Jeffrey, Director of Athletics

Tucker, Lindsay, Assistant Dance Coach

Valeria, Brandon, Assistant Coach, Football

Welch, Michael, Head Coach, Volleyball

Whitworth, Nick, Assistant Coach, Football

Williams, Kaci, Assistant Strength Coach

Wilson, Andrea, Assistant Coach, Softball

Zamberlin, John, Head Coach, Football
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Communication and Rhetorical Studies
Computer Information Systems
Communication Sciences & Disorders, and Education of the Deaf
Counseling
Dental Hygiene
Dental Science
Economics
Educational Foundations
Electrical Engineering and Computer Science
Electronics
English and Philosophy
Family Medicine
Finance
General Education
Geosciences
Health and Nutrition Sciences
Health Care Administration
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Instructional Methods and Technology
Languages and Literatures
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Helpful Contacts

For offices not listed, go to http://www.isu.edu/academic-info/current/help, or call (208) 282-2011

Academic Advising Center
Includes International Student and Scholar Coordinator
Administration Bldg., Room 316
(208) 282-4619
www.isu.edu/advising/

Academic Support and University Summer Programs
Business Administration Building, Room 242
(208) 282-4545
www.isu.edu/acadoutr/

ADA and Disabilities Resource Center
Main Floor, Graveley Hall
(208) 282-3599
www.isu.edu/ada4isu/

Admissions
Museum Bldg., Room 319
(208) 282-2475
www.isu.edu/prospect-admissions.shtml

Admissions Counseling/Minority Services
Administration Bldg., Room 316
(208) 282-4619

Associated Students of Idaho State University (ASISU)
Hypostyle, Room 299
(208) 282-3435
www.isu.edu/asisu/

Athletics (see also Reed Gym)
Holt Arena
Men’s Sports: (208) 282-2771
Women’s Sports: (208) 282-3332
isubengals.cstv.com/

Bennion Student Union Building
Idaho State University - Idaho Falls
(208) 282-7880

Bookstore, Idaho Falls
Bennion Student Union Building
(208) 282-7940
www.isu.edu/ifche/bookstore.shtml

Bookstore, Pocatello Campus
Pond Student Union Bldg.
(208) 282-3237
(800) 688-4781
www.isu.edu/current.shtml
(AND click on Student Services)

Career Center
Museum Bldg., Room 440
(208) 282-2380 www.isu.edu/career/

Center for New Directions
Top Floor, Roy F. Christensen Bldg.
(208) 282-2454
www.isu.edu/cnd/overview.shtml

Center for Teaching and Learning
( College Learning Strategies, English for Speakers of Other Languages, First Year Seminar, Honors Program, Faculty Development, Math Lab, Writing Center) Top Floor, Museum Building
(208) 282-3662

Class Schedule
classes.isu.edu (don’t type www!)

Commuter Bus Information
(208) 282-4460
www.isu.edu/transp/commuter/cb_reserve.shtml

Continuing Education (Conferences, Elderhostel, New Knowledge Adventures)
1001 N 7th Ave. Ste 202, Pocatello
(208) 282-3155; (800) 753-4781
Conferences: www.isu.edu/departments/confsvcs/news.htm
Elderhostel: www.isu.edu/summer/s_c_elder.html

Counseling and Testing Center
Graveley Hall, Top Flr, South Wing
(208) 282-2130 www.isu.edu/ctc/

Diversity Resource Center
Pond Student Union, Room 106
(208) 282-3142
www.isu.edu/messc/

Early Learning/Student Activities Center
(208) 282-2769
www.isu.edu/earlylc/

Enrollment Management
Administration Bldg., Room 320
(208) 282-2123
www.isu.edu/enroll/

Facilities Services
(208) 282-4086
www.isu.edu/departments/phyplant/

Fee Payment Information
Administration Bldg., Cashier’s Office
(208) 282-2900
www.isu.edu/finserv/studentfs.shtml

Financial Aid
Museum Bldg., Room 337
(208) 282-2756
www.isu.edu/finaid/

Graduate School
Museum Bldg., Room 401
(208) 282-2150
www.isu.edu/graduate/

Housing
West Campus Apartments
(208) 282-2120
www.isu.edu/housing/

Idaho State University-Boise
12301 W Explorer Dr Ste 102
Boise ID 83713
(208) 373-1700
www.isu.edu/boise

Idaho State University-Idaho Falls
1784 Science Center Drive
Idaho Falls ID 83402
(208) 282-7800
www.isu.edu/ifche/

Idaho State University-Twin Falls
Evergreen Bldg. Room B-40
College of Southern Idaho
Twin Falls ID 83303
(208) 736-2101 or (208) 282-4840
www.isu.edu/tfctr/
Information Desk
Pond Student Union Bldg.
(208) 282-2700
www.isu.edu/union/informationdesk/

Information Technology Services
(208) 282-2872
www.isu.edu/departments/its/

International Students
Diversity Resource Center
Pond Student Union, Room 106
(208) 282-3142
www.isu.edu/iso/

Library (Eli M. Oboler Library)
850 S 9th Avenue
(208) 282-2958
www.isu.edu/library/

Maps
For campus maps or driving directions, contact Public Safety:
(208) 282-2625
www.isu.edu/directionsandmap.shtml

New Student Orientation
Pond Student Union, Rm. 106
(208) 282-3142 www.isu.edu/nso/

Public Safety & Parking
Central Operations Bldg.
East Humboldt Street at 5th Avenue
(208) 282-2625
www.isu.edu/directionsandmap.shtml

Reed Gym
M.L. King Way at Memorial Drive
(208) 282-2252
Campus Recreation: (208) 282-4854
www.isu.edu/camprec/
Health and Wellness Center:
(208) 282-2117
www.isu.edu/wellness/
Intramural Sports: (208) 282-3516
www.isu.edu/camprec/intramurals/

Registration and Records
Museum Building, Room 319
(208) 282-2661
www.isu.edu/areg/

Research
Fine Arts Building, Room 205
(208) 282-2714
www.isu.edu/research/

Scholarships
Museum Bldg., Room 327
(208) 282-3315
www.isu.edu/scholar/

Student Affairs
Hypostyle, Room 284
(208) 282-2794
www.isu.edu/departments/studenta/

Student Health Center
Student Health Center Bldg.
282-2330
www.isu.edu/stuhlth/

Student Involvement Center
Pond Student Union
(208) 282-3451
www.isu.edu/lead/

Student Union Building
(208) 282-2700
www.isu.edu/stunion/

Study Abroad
(208) 282-2314
www.isu.edu/iso/studyabroad/

Transcript Requests
transcripts.isu.edu (don’t type www!)

Transfer Students
Museum Bldg., Rm. 319 (Admissions)
(208) 282-2475
www.isu.edu/iso/transfer.shtml

Transportation Services
(208)-282-4460
www.isu.edu/departments/transp/

TRiO Student Services
Museum Bldg., Room 312
(208) 282-3242
www.isu.edu/trio/

Tutoring Services
Museum Bldg., Room 434
(208) 282-3334
www.isu.edu/ctl/cat/

Veterans Coordinator
Museum Bldg., Room 319
(208) 282-2676
www.isu.edu/areg/veterans
2009-2010 Academic Calendar

Use the MyISU portal (http://my.isu.edu) to register, add/drop, change sections, or withdraw from academic classes.
These dates are subject to change prior to the first day of class.

Fall Semester 2009
April 10 ............... Class level registration begins (schedule online at http://www.isu.edu/areg/regtime.shtml)
April 13 ............. Commuter bus pass reservation begins
July 21 ............. TranPay form sent to students receiving financial aid; bills sent to other students
July 21 ............. Fee payment begins for Fall 2009
August 15 .......... TranPay due for priority processing; change check and receipt mailing begins
August 19 .......... Commuter bus payment due, or reservation will be canceled
August 20 .......... In-person financial aid disbursement and fee payment, PSUB Ballroom
August 21 .......... Residence halls open, 8:00 a.m.
August 24 .......... Fees due for fall semester by 5:00 p.m.; $50 late fee assessed after 5:00 p.m.
August 24 .......... Disenrollment of students who have not paid fees, 6:00 p.m.
August 25 .......... Fall classes begin
August 28 .......... Last day to add/drop, change section, or audit early 8-week courses
September 7 .......... Labor Day holiday (no classes)
September 8 .......... Last day to register, add/drop, change section, or audit full-semester courses
September 8 .......... $100 late fee assessed for all unpaid fees; late registration/fee payment petition
.......................... is required to attend classes.
September 8 .......... Last day to file health insurance fee refund request
September 8 .......... Last day for residence hall residents to change meal plans
September 25 .......... Last day to withdraw from early 8-week courses
October 11 – 17 .. Mid-term week
October 17 .......... Last day to apply for December 2009 graduation (use MyISU)
October 19 .......... Late 8-week courses begin
October 23 .......... Last day to add/drop late 8-week courses
October 30 .......... Last day to withdraw from individual full-semester classes
October 30 .......... Last day to withdraw from the University
October 30 .......... Commuter bus preregistration for Spring semester begins; payment due by January 6
November 6 .......... Class-level registration begins for Spring 2010
.......................... (See registration schedule at http://www.isu.edu/areg/regtime.shtml)
November 20 .......... Last day to withdraw from Late 8-week courses
November 23-27 ... Fall recess (no classes--Thanksgiving holiday November 26 – 27)
December 6 - 12 .. Closed Week
December 12 - 18 .. Final Examinations
December 18 .......... Residence halls close, 5:00 p.m.

Spring Semester 2010
January 6 ............... Commuter bus payment due, or reservation will be canceled
January 11 .......... Spring classes begin
January 15 .......... Last day to add/drop, change section, or audit early 8-week courses
January 18 .......... Martin Luther King/Idaho Human Rights holiday (no classes)
January 25 .......... Last day to register, add/drop, change section, or audit full-semester courses
February 8 .......... Registration begins for Summer 2010 term
February 12 .......... Last day to withdraw from early 8-week courses
February 15 .......... Presidents' Day holiday (no classes)
March 1 – 5 .......... Mid-term week

(Academic Calendar continued on inside back cover)
2009-2010 Academic Calendar

March 5 .................. Last day to apply for May 2010 graduation
March 8 .................. Late 8-week courses begin
March 12 ............... Last day to add/drop late 8-week courses
March 19 ............... Last day to withdraw from individual full-semester classes
March 19 ............... Last day to withdraw from the University
March 22 – 26 ........ Spring Break (no classes)
April 7 ................. Commuter bus preregistration for Fall semester begins; payment due by August 19
April 9 ................. Last day to withdraw from late 8-week courses
April 9 ................. Class-level registration begins for Fall 2010 semester
........................................ (See registration schedule at http://www.isu.edu/areg/regtime.shtml)
Apr. 24-30 .......... Closed week
May 1 – 7 .......... Final Examinations
May 7 ................. Last day to apply for August 2010 graduation
May 8 ................. Commencement

Summer Term 2010

Summer session bills are mailed weekly. FEES must be PAID by the FRIDAY before class starts, whether or not a bill has been received.

Summer hours at Idaho State University are from 7:30 a.m. to 4:00 p.m.

May 7 ................. Last day to apply for August 2010 graduation
May 17 ................. Summer classes begin
May 31 ............... Memorial Day holiday (no classes)
June 25 ............... Last day to withdraw from the University
July 5 ............... Independence Day holiday (no classes)
August 6 ............. Summer term ends

Sessions Within Summer Term

Workshops start no earlier than May 17 and end no later than August 6.

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<th>Course Dates</th>
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<th>Withdraw</th>
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<tr>
<td>May 17 - July 9.... Early 8-Week Courses</td>
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<td>June 14 - August 6. Late 8-Week Courses</td>
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<td>July 12 - August 6. Late 4-Week Courses</td>
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For all other details about the Sessions within the Summer Semester, please refer to the calendar website at http://www.isu.edu/departments/areg/acadclnd.shtml

The Registration and Records web site is at http://www.isu.edu/areg
The College of Technology web site is at http://www.isu.edu/ctech
The On-Line Class Schedule is at http://classes.isu.edu
