

Idaho State UNIVERSITY

Undergraduate Catalog
2010-2011



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www.isu.edu/academic-info/current/

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General Information

College of Arts and Sciences

College of Business

College of Education

College of Engineering

Kasiska College of Health Professions

College of Pharmacy

College of Technology

Policy Statements

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

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

Idaho State University 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.

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Undergraduate Programs

(For Graduate Programs, see Graduate Catalog)

Pre-Professional Programs

Students in pre-professional programs will typically take courses at Idaho State University for their first two years and complete the programs at cooperating Universities elsewhere.

Pre-Architecture
Pre-Counseling
Pre-Dentistry
Pre-Law
Pre-Medicine
Pre-Occupational Therapy
Pre-Optometry
Pre-Osteopathic Medicine
Pre-Pharmacy
Pre-Physical Therapy
Pre-Physician Assistant
Pre-Podiatric Medicine
Pre-Student Affairs
Pre-Veterinary Medicine

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

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• **Associate of Applied Science** available in Massage Therapy and Practical Nursing programs 300, 306
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- Energy Systems Wind Engineering Technology (AAS, BAS) 279
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- Health Science (BS) 288-289
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- Western Hemisphere Studies (T) 67
- Wind Instruments (specialty in Bachelor of Music) 128
- Women Studies (M) 151
- Writing (English) (M) 95
- Writing, Creative (M, O) 95, 95-96
- Writing, Professional (O) 94-95
- Zoology (BS, M) 79, 80

Also Offered in the College of Technology:

- Southeast Idaho Region 5 Tech Prep 314
- WORKFORCE TRAINING 313-314

About The University

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

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, Kasiska 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.

Vision

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

Mission

As a regional public Doctoral/Research University, Idaho State University meets the needs of a diverse population with certificate, associate, baccalaureate, master's and doctoral degree offerings, as well

as family practice, dental, and pharmacy residency programs.

Through programs in pharmacy and health-related professions, ISU is the state's lead institution for education in the health professions and related biological and physical sciences.

The preparation of teachers, administrators, and other education professionals is another primary emphasis at ISU.

Programs in business and engineering respond to a variety of current and emerging demands within the state and region, and, with the change in focus of the Idaho National Laboratory to nuclear science, ISU will expand its programming in this area and continue its leadership.

ISU is committed to maintaining strong arts and sciences programs as independent, multifaceted fields of inquiry and as the basis of other academic disciplines.

The University offers a substantial array of graduate programs in the arts and sciences, education, and health professions.

As a part of its community college function, ISU provides students high quality professional education and technical training in response to the needs of private industry.

Goals

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

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

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

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

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

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

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

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

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

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

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

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

5: Create and maintain research facilities and infrastructure that enhance program effectiveness.

3) Advance medical and health care education throughout the state and region through increasing the quality of healthcare, the number of practicing health care professionals, and promotion of translational research.

1: Increase the numbers of clinical faculty employed by and affiliated with the University.

2: Develop strategic public and private partnerships with health care organizations, facilities, and professional and provider organizations throughout the state and region.

3: Enhance the depth and breadth of our existing residency programs and develop new and innovative programs.

4: Strengthen public service and health care education through enhanced clinic operations.

5: Enhance translational research.

6: Enhance both governmental support and finances as well as external fund raising focused on health and medical education.

7: Establish a distributive medical education program to leverage existing health care expertise and serve needs across the State of Idaho.

4) Prepare students to function in a global society.

1: Enrich learning and research opportunities for both students and faculty through greater development of international programming.

2: Recruit and retain students, faculty, and staff from underrepresented groups to better serve institutional and community needs for integration of multicultural and gender-related perspectives in our range of programming.

3: Create instructional, research, residential, and social environments that encourage the social integration of all students, faculty, staff, and the larger community.

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

1: Actively participate in community planning, marketing, volunteerism, and responsible economic development throughout the state and region.

2: Enhance partnerships with other institutions of higher education throughout the state and region.

3: Strengthen partnerships with K-12 organizations to enhance students' abilities to enter and ascend ISU's educational ladder of opportunity.

4: Develop and maintain continuing education services founded on quality, access, affordability, and flexibility.

5: Develop and refine academic programming and research that advances our institutional mission as it evolves to meet changing needs across the state, region, nation, and world.

6: Enhance existing alumni relations and support and develop further resources aimed at supporting the University's mission.

6) Promote the efficient and effective use of resources.

1: Set University-wide priorities for faculty and staff development and capacity building.

2: Develop a culture of effective and efficient governance based on organization, communication, accountability, consistency, relationship building, and university-wide prioritization.

3: Provide an administrative infrastructure that provides proper budgeting processes and sound budgetary oversight.

4: Develop a clear and concise Manual of Administrative Policies and Procedures that help to ensure compliance with applicable laws and regulations, promote operational efficiencies, enhance the University's mission, and reduce institutional risks.

5: Strengthen fiscal controls, with attention to stakeholder involvement and understanding, to maximize the propriety of and control over financial transactions, as well as ensure that assets are protected and costs are incurred only when necessary.

6: Provide quality human resource services and support, and promote both ethics and diversity, enabling employees to better serve the university and our community.

7: Ensure that Information Technology Services supports the university's missions for teaching and learning, research, and administration applications by providing appropriate information and instructional technology and support, built on an effective and reliable information technology infrastructure.

Accreditation

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

- ABET, Inc.
- Accreditation Council for Graduate Medical Education
- Accreditation Council for Occupational Therapy Education
- Accreditation Council for Pharmacy Education
- Accreditation Review Commission on Education for the Physician Assistant
- American Association of Medical Assistants Endowment
- 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 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.

Idaho State University Bengal Foundation

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

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

Idaho State University Foundation, Inc.

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

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

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

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

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

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

Physical Facilities and University Services

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

For convenience, a free on-campus shuttle bus is available during the fall and spring semesters. Riding a bicycle is also a popular way to get around campus. The campus is located just off of the interstate, making access very easy. The University commuter bus system brings students to the campus from over 70 miles away from Idaho Falls, neighboring towns and areas in-between. 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 2008). The Rendezvous is a new 256,000 square foot, multi-use facility located in the center of campus containing 82 student suites which house 300 students, a 40 classroom academic building with a 250 seat lecture hall/future planetarium, a core food service facility to serve housing students and retail customers, as well as a 120 seat drop-in computer lab and numerous styles of study and relaxation spaces. This expansive facility creates a new living, learning, studying, social and academic heart for the campus.

The L. E. and Thelma E. Stephens Performing Arts Center, completed in 2004, is located on 16.8 acres, high on a hill on the perimeter of

the campus, adjacent to Interstate 15. This 123,000 square foot facility includes a 1,200 seat concert hall, an elegant rotunda, a 446 seat thrust theatre, and a 200 seat black box theatre. The three-level concert hall, the Center's largest venue, incorporates state-of-the-art design and technology to optimize sound. The Center also includes classroom space, offices for the Department of Theatre and Dance, and a conference room. The facility and the various, wonderful performances it presents are a must-see part of campus.

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

Opened in August 2009, the 46,000 square foot ISU-Meridian Health Sciences Center includes programs with an emphasis on health sciences, consolidating 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, completed in April 2010, includes weight, cardio-training and fitness areas, dance/multipurpose rooms, offices, and lobby.

Completed in August 2010, a new NCAA Women's Softball Field provides a competition-level practice and performance field for the ISU women's softball team.

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

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

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

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

Students should purchase textbooks as early as possible to ensure good selection. A full refund will be paid for unmarked

books, accompanied by the original sales slip, that are returned by the 7th day from the start of Fall or Spring semester. Books that are marked or damaged will be refunded at 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 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>, 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>. 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>.

For more information about ISU's Information Technology Services, visit <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>).

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 R. Swanson Archaeological Repository, vertebrate and invertebrate paleontology, and the Ray 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, Geoscience, 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

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

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

The Pond Student Union and the Union Hypostyle house offices for the Associated Students of Idaho State University (ASISU); Student Affairs, including the Vice President for Student Affairs, Associate Dean of Students (University Judicial Officer); The Bengal student newspaper; the Outdoor Adventure Center (comprised of C.W. HOG, Outdoor Program, and Outdoor Adventure Rentals); Craft Shop; Idaho State University Mail Center; KISU-FM Public Radio; International Programs Office; New Student Orientation; Scheduling and Event Services; Student Activities Board (SAB); Student Organizations and Greek Life; Union Program Council (UPC); and University Food Services.

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

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

University Housing

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

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.

Housing Options

University Housing offers traditional and suite-style residence halls. Traditional age first-year students can only sign up for the residence halls. On-campus apartments are available for sophomores and above, married students, and students with children. Floor plans and photos, as well as pricing, can be found at www.isu.edu/housing. The Housing fee covers all utilities, as well as local telephone service, basic cable television, and wireless internet (internet service requires an ISU computer account, which is charged per semester).

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, regardless of whether they live on campus.

To Apply

Applying for University Housing is separate from application to Idaho State University. Housing applications are completed and submitted online. To apply simply go to the Housing website (www.isu.edu/housing) and then click the "Apply Now" link on the left. Then select either the residence hall or apartment application. If you have questions please email reslife@isu.edu.

University Library

The University Library, named for its past Director, Eli M. Oboler, contains major collections of books, periodicals, electronic resources, maps, microforms, and government publications and provides a full range of services to students, faculty, and staff. The library collection of 700,377 book and serial volumes and its 4,576 active journal subscriptions in all formats are accessible) through its automated catalog and circulation system, or it's A-Z Journal List, both available through the library web page. 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.

Meridian

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

Undergraduate Admission

Office of Admissions
921 S 8th Ave. Stop 8270
Pocatello ID 83209-8270
(208) 282-2475

<http://www.isu.edu/enroll/admissions/>
email: admiss@isu.edu

	Freshmen and Transfer Applicants	International Applicants
Fall Semester	August 1	March 1
Spring Semester	December 1	November 1
Summer Semester	Open	Applications not accepted

Students should hear from the Admissions Office at Idaho State University approximately 10 days following receipt of their complete application file. Those who are undecided about a major and those requiring academic assistance are assigned an advisor from the Academic Advising Center.

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 baccalaureate 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.

English (Composition, Literature)	8 credits
Mathematics (Applied Math I, Applied Math II, Algebra I, Algebra II, Geometry, Analytic Geometry, Calculus, Statistics, Trigonometry; at least 4 semesters must be taken during grades 10 through 12)	6 credits
Natural Science (Anatomy, Biology, Chemistry, Earth Science, Geology, Physiology, Physical Science, Physics, Zoology. Selected applied science courses may count for up to 2 semesters. At least 2 semesters must be for courses which include a laboratory science experience.)	6 credits
Social Science (American Government, Geography, U.S. History, World History, Economics, Philosophy, Psychology, Sociology)	5 credits
Humanities/Foreign Language (Literature, History, Philosophy, Foreign Language, and related study of 2 or more of the traditional humanities disciplines)	2 credits
Other college prep (Speech, Studio/Performing Arts (Art, Dance, Drama, Music), additional Foreign Language. Up to 2 semesters of approved vocational courses may apply; consult your high school counselor)	3 credits

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.

Admission Process

Note: The following information applies to undergraduate students applying for admission to academic programs. Students seeking information regarding admission to College of 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.

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.
2. Minimum ACT Composite Score of 18.
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.

Admission by Petition

Applicants who fail to meet the admission requirements above, or transfer students with a cumulative GPA of less than 2.0, may deserve further consideration for admission because of special circumstances. Applicants may submit an admission petition to the Office of Admissions explaining why they feel that they can be successful at Idaho State University and documenting their special circumstances. Letters of academic support from counselors, teachers, etc., are encouraged.

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

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

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

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. Transferred credits from non-U.S. colleges/universities are recorded with grades of Satisfactory.

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 vs. Upper Division Transfer Credit

Credits are transferred to Idaho State University at the level earned at the institution of origin. Transferred lower division

(1000 and 2000 level) credit may NOT count as upper division (3000 and 4000) credit regardless of the appropriate course equivalencies determined by the Admissions Office.

Transfer Credits toward General Education Requirements

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

2. Students transferring from any U.S. academic regionally accredited institution, who have completed the Idaho general education core courses (but do not have an A.A., A.S. or A.A.&S. degree) and have their transcripts noted "Idaho core certified" by the sending institution, have met the Idaho State University general education requirements. However, they will be required to complete all courses that are required by their major/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 may be petitioned for credit through Idaho State University's academic departments.

Other Applicants

Former Students

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

1. Application for Admission. Access on-line application at <http://isu.edu/future.shtml>.
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 an eight-semester time frame. However, students MUST complete an admissions update form or call the Office of Admissions at (208) 282-2475 to provide current information, including official transcripts from all other colleges or universities attended since initial application submission, prior to being allowed to enroll for classes.

Students with Behavioral Problems

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

Non-Degree Seeking Students

A person may apply as a non-degree seeking student if he/she does not wish to qualify for admission for degree work but to pursue studies for personal reasons. Such a student may register 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 regu-

lar admission procedures at Idaho State University to enroll for additional degree credits or sign a non-degree waiver to continue as a non-degree seeking student. All admission requirements must be met before the university can assist this student in obtaining a degree. Such a student will be classified as non-degree seeking until all admission requirements are met for classification as a regular student. Non-degree seeking students are NOT eligible for Federal Financial Aid.

Early College Program/ High School Dual Credit

Academically qualified high school students may enroll at Idaho State University. Dual Credit allows high school students the opportunity to earn college credit while continuing their high school courses and activities. Courses may be taught at their high schools by teachers approved as Idaho State University adjunct faculty. High schools may allow Idaho State University courses to be applied to meet high school graduation requirements.

High school students must complete an Idaho State University Early College Program registration form. Written permission from their principal or counselor is needed along with a parent's and the student's written signatures. High school students meeting the necessary requirements will be allowed to enroll on a part-time (1-7 credits) basis. High schools students may enroll in any class offered through Idaho State University for which they have met the prerequisites.

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

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

Idaho State University has established the University Health High School Program to introduce students to the health professions, since the University is Idaho's center for education in this domain. Learn more about careers, hear from working professionals, and discover opportunities to take dual credit, on-line, introductory courses in the health professions at <http://public.itrc.isu.edu/uhrs/>.

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 Critical Reading 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 register for classes early. 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

All international post-secondary educational documents must go through an evaluation service approved by the National Association of Credential Evaluation Services, Inc. (NACES - www.naces.org). You will need to provide us with the official evaluation (course-by-course evaluation) in addition to the official transcript. In order for the evaluation to be considered official, it must come to us directly from the evaluation service. 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 Critical Reading score of 450 may also satisfy the English Proficiency requirement. Idaho State University will also accept Level 112 completed at any ELS program (www.els.edu) in place of a 500/550 TOEFL. Visit www.ets.org for more information. Conditional admission is possible.

If the student is transferring 26 or more credits from another college or university in the United States, the English Proficiency requirement for admissions is waived. 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.

Financial Statement

All international students must submit written proof that they are financially able to support themselves while attending Idaho State University. The Declaration of Financial Support Form from a sponsor along with an attached official bank statement will serve as proof of the student's financial ability to meet his/her educational costs. The designated sponsor must release funds when needed to pay for expenses as indicated on the declaration. Refer to the estimate of costs, shown below.

International students receiving athletic scholarships from Idaho State University must have the Athletic Department submit written verification of such a financial award. Idaho State University reserves the right to require financial deposits from students before registration.

Note: Based on academic merit and availability, new entering International students may be considered for non-resident fee waiver scholarships worth approximately \$10,500 per year. For more information, contact: scholar@isu.edu

Estimated Costs

Undergraduate, Without Scholarship

Category	Expense
Tuition and Fees*	\$ 15,916.00
Other Expenses (books, supplies, and medical insurance)	\$ 2,170.00
Living Expenses	\$ 5,050.00
Total for I-20 students:**	\$ 23,136.00

Undergraduate, With Scholarship

Category	Expense
Tuition and Fees*	\$ 5,416.00
Other Expenses (books, supplies, and medical insurance)	\$ 2,170.00
Living Expenses	\$ 5,050.00
Total for I-20 students:**	\$ 12,636.00

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

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

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

Costs tend to increase by 5-10% 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 http://www.isu.edu/housing/cost_info.shtml for on-campus housing costs. Off-campus options are also available. A married student accompanied by spouse and children must provide additional funds for them. International students are confronted with a different circumstance than resident students or even out-of-state students. These students may need to supplement their personal belongings with purchases after they arrive on campus. In addition, international students may be required to arrange for their own meals during vacations when residence hall cafeterias are closed.

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.

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 Central Academic Advising Office to complete the Fundamentals of Advisement and Registration (Mandatory Advising) session (online at <http://www.isu.edu/advising/madvising.shtml>) and for assistance with registration.

Transfer Students

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

Former Students

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

Registration**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.

Preregistration for all students will be conducted for approximately four weeks before the end of each semester. Questions concerning registration should be directed to the Office of Registration and Records.

Registration is not permitted after the second week of classes. A department, with the dean's permission, may deny permission to register in any class or laboratory after the first week.

Students are expected to know academic requirements and policies and to assume major responsibility for planning their individual programs of study in accordance with University and major requirements and policies, as described in the *Undergraduate Catalog*.

Idaho State University's class schedule information is linked online at classes.isu.edu or at http://ssb.isu.edu:9010/bprod/bwckschd.p_disp_dyn_sched

**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 ASISU 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.

Expenses

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

The "Costs of Attendance" web page at <http://www.isu.edu/finserv/costinfo.shtml> provides the most updated information on the major types of fees.

In addition to the fees listed here, some courses may require additional expenses such as 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	\$2,708.00 + insurance*
Nonresident	\$ 7,958.00 + insurance*

Part-time (1-11 credits)

Resident	\$273.00 per credit hour
Nonresident	\$423.00 per credit hour

*See Student Health Insurance Fee, below.

Housing Costs

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/>.

Student Health Insurance Fee

All full-time fee paying students, and all International students taking 3 or more credits (waiver available with documentation of personal coverage) pay:

\$534 Fall Semester
\$736 Spring and Summer
\$318 Summer only
\$238 per College of Technology early or late 8-week session

Any student with existing health insurance coverage may be exempted from participating in the Student Insurance Plan by completing and filing a Health Insurance Waiver request each academic year. For more information, contact the Student Health Insurance Office, (208) 282-2972.

Other Fees and Charges

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

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

Application Fee

(Academic and College of Technology students)

Undergraduate	\$40
Graduate	\$50

Audit Fee

Same as part-time credit hour fees

Books and Supplies

Approximate expenses are \$350 to \$550 per semester, and vary depending on course requirements. See the follett.com website for more information.

Class Fees (in addition to regular registration fees)

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

Credit 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.

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 Fees

After due date for fees	\$50
After last day to drop classes	\$100

Students are expected to pay fees by the due date for fee payment (generally the Friday before classes begin; fees for classes starting later in the semester are due on the first day of class), regardless of receipt of bill or financial aid availability. Additional late fees may be charged for each month or portion thereof in which fee payment is not complete. Students may also be subject to disenrollment if fees are not paid by the due date. Please start early in arranging for fee payment; check for options by calling (208) 282-3000.

Malpractice Insurance

Yearly costs are as follows:

Medical/Counseling	\$15
PharmD	\$15
Physician/Nurse Practitioner/EMT	\$61.50

Military Style Physical Fitness Class Fee

A class fee of \$20 is charged for civilian enrollment in MSL/PEAC 1110, Military Style Physical Fitness.

Music Fees

A special music fee is charged for enrollment in applied music (private lessons). Students taking applied music lessons pay fees of \$175, \$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.

New Student Orientation Fee

A \$35 fee is charged first semester only; for more information, visit <http://www.isu.edu/nso/>

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.

Professional Fees

Per-semester Professional Fees for undergraduate programs:

Clinical Laboratory Science	\$424
Dental Hygiene (Junior/Senior)	\$265
Idaho Dental Education Program	\$10,786
Nursing	\$640
Occupational/Physical Therapy, Resident	\$980
Non-resident	\$3,388
PharmD, Resident*	\$3,929
Non-resident*	\$6,193
Radiographic Science	\$345
Social Work	\$125
Speech Language Pathology	
Online Pre-professional	\$196/credit

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

Placement Testing Fee (Compass Tests)

\$5 per examination

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.

Transcript Fee

See information at <http://transcripts.isu.edu>

VTE Competency Credit Fee (College of Technology)

\$135

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 resi-

dency 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 thirty months 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 cover 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 (WICHE) 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 Idaho Residency Determination Worksheet from the Admissions Office or online at <http://www.isu.edu/enroll/admissions/forms/IRDW20090616.pdf>. It must be completed, notarized, and submitted to the Admissions Office along with supporting documentation. If approved, the student's status will be changed in the computer and the student will be billed as a resident. 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 contract classes, etc.)
2. Late processing charges.
3. Any amounts paid to satisfy fees/charges due from previous terms.
4. Amounts paid for student malpractice insurance.
5. Student Health Insurance premiums are not refunded under this policy. Please contact the 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:

1. Federal aid programs (see Financial Aids Handbook for priority).
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 s/he is so notified. If the check is not cleared within ten days, a second notice is sent and a hold placed on his/her records.

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

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

Financial Aid and Scholarships

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

Financial assistance programs are administered by various departments at Idaho State University. The following list identifies the types of financial funding available and the University office to contact for further information. If writing to any of the departments listed below, use the address format 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) 282-2380

On-campus (part-time)
Career Center / University Departments
Financial Aid Office / Student Union
(208) 282-2380

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

Loans

- **Federal Ford Direct Student Loans (subsidized and unsubsidized)**
 - **Federal Perkins Loans**
 - **Federal Ford Direct Parent Loans for Undergraduate Students**
 - **Federal Ford Graduate PLUS Loans**
- Short Term Loans**
Financial Aid Office, Stop 8077
Room 337, Museum Building
(208) 282-2756

Non-Resident Tuition Waivers

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

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

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

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

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

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 8319
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 (LEAP) Grants
- Academic Competitiveness Grants
- Federal Supplemental Educational Opportunity Grants
- SMART Grants
- Federal Pell Grants
- Federal Ford Direct Student Loans
- Federal Ford Direct Parent Loans for Undergraduate Students
- Federal Ford Graduate PLUS Loans

The application form used for financial aid programs through the Financial Aid Office is the Free Application for Federal Student Aid (FAFSA). The FAFSA will cover 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. In order to qualify for certain campus-based aid, students should submit their FAFSA by the priority date of March 1st.

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 or half-time (6-8 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. In some cases, students enrolled in fewer than six credits may qualify for Pell and TEACH grants.

To obtain more specific information, contact the Financial Aid Office, Room 337, Museum Building, 921 S 8th Ave Stop 8077, Pocatello, ID 83209-8077, (208) 282-2756. Or use the Financial Aid and Scholarship Web page, www.isu.edu/finaid/.

Scholarships

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

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

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

Nonresident tuition waivers are available to qualified students who demonstrate financial need (inquiries should be addressed to the Idaho State University Financial Aid and Scholarship Office), and to students who have demonstrated strong academic ability.

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.

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. 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 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 ENGL0090 (noncredit), ENGL 1101, or ENGL 1102 (see Placement Protocols section, following the Goals section). Goal 1 is satisfied when the student has passed ENGL 1102 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 1101 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 1123	Mathematics in Modern Society (Prerequisite MATH 025)	3 cr
MATH 1127	The Language of Mathematics (Prerequisite MATH 025)	3 cr
MATH 1130	Finite Mathematics (Prerequisite MATH 108)	3 cr
MATH 1160	Applied Calculus (Prerequisite MATH 143)	3 cr
MATH 1170	Calculus I (Prerequisite MATH 147 or 143 & 144)	4 cr
MATH 1153	Introduction to Statistics (Prerequisite MATH 108)	3 cr
ELSY 3372	Calculus for Advanced Electronics (Prerequisite ELSY 262)	3 cr

For further information about mathematics prerequisites and placement, see Placement in 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 (choose one):

BIOL 1100,1100L Concepts Biology: Human Concerns, and Lab 4 cr
(This course is designed for non-science, non-health related majors.)
BIOL 1101,1101L General Biology I, and Lab 4 cr
(This course is designed for students preparing for majors in science, pre-medical fields, and health related professions.)

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.

All chemistry courses used to satisfy Goal 5 must have been taken within the last 10 years.

Credits required: 4 credits

Courses satisfying the goal (choose one):

CHEM 1100	Architecture of Matter	4 cr
GEOL 1100,1100L	The Dynamic Earth, and Lab 4 cr	4 cr
GEOL 1101 and either GEOL 1101L or GEOL 1110*	Physical Geology plus either Physical Geology Laboratory OR Physical Geology for Scientists Laboratory	4 cr
GEOL 1115 and 1115L	Physical Geography and Lab	4 cr
PHYS 1100	Essentials of Physics	4 cr
PHYS 1101, 1101L**	Elements of Physics, and Lab	4 cr
PHYS 1152 and 1153	Descriptive Astronomy plus Lab	4 cr

Another means to satisfy this goal is to take one sequence from the following:

CHEM 1101	Introduction to General Chemistry	3 cr
	AND	
CHEM 1102	Introduction to Organic and Biochemistry	3 cr
	AND	
CHEM 1103	Introduction to General, Organic and Biochemistry Lab	1 cr
CHEM 1101 and 1112		7 cr
CHEM 1111, 1111L, and CHEM 1112, 1112L	General Chemistry I and II, and Labs	9 cr
CHEM 1111, 1102 AND 1103		7 cr
PHYS 1111, 1112, 1113, 1114	General Physics I and II plus Labs	8 cr
PHYS 211, 212, 213, 214	Engineering Physics I and II plus Labs	10 cr
PHYS 1111/1112 and 2213/2214		8 cr
PHYS 2211/2212 and 1113/1114		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 1106	American Music	3 cr
ART/M C 2210	History and Appreciation of Photography	3 cr
ART 1100	Survey of Art	3 cr
ART 1101	History of Western Art I	3 cr
ART 1102	History of Western Art II	3 cr
DANC 1105	Survey of Dance	3 cr
DANC 2205	Dance in the Modern Era	3 cr
ENGL 1126	Art of Film	3 cr
MUSC 1100	Introduction to Music	3 cr
MUSC 1108	The World of Music	4 cr
THEA 1101	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 1110	Introduction to Literature	3 cr
ENGL 1115	Major Themes in Literature	3 cr
ENGL 2257	Survey World Literature I	3 cr
ENGL 2258	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 1101	Introduction to Philosophy	3 cr
PHIL 1103	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 1111	U.S. History I (to 1865)	3 cr
HIST 1112	U.S. History II (to present)	3 cr
HIST 1118	U.S. History and Culture	3 cr
AMST 2200	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):

ANTH 2237	People and Cultures of the Old World	3 cr
ANTH 2238	Peoples and Cultures of the New World	3 cr
ANTH 2239	Latino Peoples and Cultures	3 cr
CMLT 2207	Contemporary European Culture	3 cr
CMLT 2208	Cultures of the Spanish-Speaking World	3 cr
CMLT 2209	Asian Cultures	3 cr
HIST 1101	Foundations of Europe	3 cr
HIST 1102	Modern Europe	3 cr
HIST 2249	World Regional Geography	3 cr
HIST 1251	Latin American Civilization	3 cr
HIST 2152	East Asian History	3 cr
HIST 2154	Middle Eastern Civilization	3 cr
HIST 2155	African History and Culture	3 cr

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 1101-1102	Elementary Shoshoni	8 cr
ARBC 1101-1102	Elementary Arabic	8 cr
CHNS 1101-1102	Elementary Chinese	8 cr
FREN 1101-1102	Elementary French	8 cr
GERM 1101-1102	Elementary German	8 cr
JAPN 1101-1102	Elementary Japanese	8 cr
LATN 1101-1102	Elementary Latin	8 cr
RUSS 1101-1102	Elementary Russian	8 cr
SPAN 101-102	Elementary Spanish	8 cr
ANTH/SHOS 2201-2202	Intermediate Shoshoni	8 cr
ARBC 2201-2202	Intermediate Arabic	8 cr
CHNS 2201-2202	Intermediate Chinese	8 cr
FREN 2201-2202	Intermediate French	8 cr
GERM 2201-2202	Intermediate German	8 cr
JAPN 2201-2202	Intermediate Japanese	8 cr
LATN 2201-2202	Intermediate Latin	8 cr
RUSS 2201-2202	Intermediate Russian	8 cr
SPAN 2201-2202	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 1100	Economic Issues	3 cr
ECON 2201	Principles of Macroeconomics	3 cr
ECON 2202	Principles of Microeconomics	3 cr
POLS 1101	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 1100	General Anthropology	3 cr
PSYC 1101	Introduction to General Psychology	3 cr
SOC 1101	Introduction to Sociology	3 cr
SOC 1102	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 1101, 1102, and 1103	7 cr
CHEM 1111, 1111L, and CHEM 1112, 1112L	9 cr
CHEM 1111, 1102 and 1103	9 cr
CHEM 1101 and 1112	7 cr
PHYS 1101, 1101L*	4 cr
PHYS 1111, 1112, 1113, 1114	8 cr
PHYS 2211, 2212, 2213, 2214	10 cr
PHYS 1111 and 1112 with labs 2213 and 2214	8 cr
PHYS 2211 and 2212 with labs 1113 and 1114	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 1101-1102 Honors Humanities I and II 6 cr

Goal 7: Choose two:

ENGL 2211, 2267, 2268, 2277, 2278, 3321.

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:

PHIL 2220, 2230, 3305, 3315, 3325, 4400, 4410, 4420, 4430, 4450, 4460, PHIL/ENGL 4440.

Goal 9: Choose two:

ANTH/HIST 2258, HIST 3307, 3308, 3309, SOC 4450

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 2221, 2223, 3323, 3326, 4443, 4444, 4446, 4448, 4460, 4474

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 4401, 4403, 4404.

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 1102

Stated Goal: To express ideas in clear, logical, 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 1101

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 1123, 1127, 1130, 1153, 1160, and 1170

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 1123, 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 1127, 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 1130, 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 1153, 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.

In MATH 1160, 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 1170 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.

Goal 4 Learning Outcomes—BIOL 1100, 1100L, 1101, 1101L

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 1100, 1100L; 1101, 1101L, 1110L; 1115, 1115L; CHEM 1100, 1101, 1102, 1111, 1112; PHYS 1010; 1101, 1101L; 1152, 1153

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 1100, 1101, 1102, 1111, and 1112

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 1100, 1100L, 1101, 1101L, 1110L, 1115, 1115L

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 1100, 1101, 1101L, 1152, 1153

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. (1152/1153) improve their conceptual knowledge of Earth, our solar system, our place in the universe, where we came from, and where we are going.
5. (1152/1153) 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. (1152/1153) 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 — DANC 1105 and 2205; MUSC 1100, 1106, 1108; ART/M C 2210; THEA 1101

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 1100 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 1106 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 1108 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 2210

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 visual 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 student 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 invention and evolution of photography throughout the 19th century.
- B. Research paper. The paper demonstrates the student's 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 1101 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 1101 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 backstage 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 1110, 1115, 2257, 2258

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 1101, 1103

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 2200; HIST 1111, 1112, 1118

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 2237, 2238, 2239; HIST 1101, 1102, 2251, 2252, 2254, 2255

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 2237, 2238, and 2239 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 visually study (via various audio-visual 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 1101, 1102, 2251, 2252, 2254, 2255

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 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. gain a knowledge of all the important aspects of basic grammar in the chosen language.
2. develop speaking and comprehension abilities in the chosen language which are suitable for a variety of simple social encounters.
3. develop an appreciation of the cultural breadth of the parts of the world where the chosen language is spoken.
4. develop an elementary understanding of the scope of literary culture in the chosen language.

Goal 11 Learning Outcomes — ECON 1100, 2201, and 2202; POLS 1101

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

Student Learning Outcomes

ECON 1100, 2201, and 2202

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 1101

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 1101 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 and 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 1100; SOC 1101, 1102; PSYC 1101

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 politics 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 com-

parisons 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 1101 and 1102

Students will:

1. (1101) Demonstrate an awareness of the general sociological theory and research methods.
2. (1101) Read academic texts to critically analyze the social groups and institutions.
3. (1101) Demonstrate an understanding of sociological theory and method with regard to the analyzing social groups and institutions.
4. (1102) Demonstrate an awareness of the general sociological theory and research methods.
5. (1102) Read academic texts to critically analyze the social groups and institutions as these relate to social problems and issues.
6. (1102) Demonstrate an understanding of sociological theory and method with regard to the analyzing social problems in the context of social groups and institutions.

PSYC 1101

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 they 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 1160 Brief Calculus or by MATH 1130 and MATH 1143.

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, including the Bachelor of Arts with a major in General Studies, 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 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 1160; Goal 11 by ECON 2201 and 2202.)

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 and/or German) - 8 cr (Voice majors are strongly encouraged to elect two years of foreign language.); Social Sciences - 12 cr; Natural Sciences - 8 cr (including at least one laboratory course); Fine Arts/Humanities (not counting foreign language or music) - 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 hours in the physical or 12 hours in biological sciences; two of Goals 6, 7, and 8; and three of Goals 9, 10A OR 10B, 11, and 12.

Specific programs may have more specific requirements. Students should consult with their advisors while choosing goal courses.

Bachelor of University Studies—B.U.S.

Candidates for 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 request to 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 24-50 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

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

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

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

Graduation Application

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

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

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

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

How To Apply

Academic Undergraduate Students

- In person: Contact the Office of Registration and Records, located in the Museum Building, Room 319, at (208) 282-4225 or (208)-282-4874.
- 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

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.
- At least 16 upper division credits required for the major must be resident credits, as defined above and approved by the department.
- At least 6 credits required for the minor must be resident credits, as defined above and approved by the department.
- Additional resident credit is granted as specified in the "Alternative Credit Opportunities" section of this catalog.

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

Resident credit for graduate programs is addressed in the Graduate Catalog.

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

Bachelor's Degree Credit Requirements

At least 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 3000 or 4000 numbers. Sixteen of these credits must be earned in courses approved by 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 above may be counted.

A maximum of 50 credits may be earned in the major area of study. In general, the number of credits in excess of 50 earned in the major field must be reflected 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 at the University for three years or more from the date of last attendance must meet degree requirements as outlined in the catalog in effect at the date of their reenrollment, degree conferral date, or any subsequent catalog.
5. If a major program is discontinued by the University and the State Board of Education, students enrolled will be assisted in transferring to an equivalent program in the state. If there is no similar program within the state, currently enrolled students will be permitted to complete the program in accordance with existing graduation requirements.

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

Grade Requirements

An 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.

1198P, 2298P, 3398P, 4498P Professional Development Workshop 0-3 credits. New methods and opportunities to enhance and supplement skills. Subject to the approval of the

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

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

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

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

Attendance

Students are expected to attend all meetings 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 listed in the online Class Schedule or Course Catalog with a course attribute of “Audit Available” allow students to choose the Audit option when registering, up to the 10th day of the term.

To register for a course listed as “Audit Available,” and/or to change from credit to audit option after the 10th day of classes (changing from audit to credit is NOT allowed at any time), the student must submit an approved Schedule Change Card.

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 0000-0099 do not carry academic credit. Courses numbered 1100-2299 are lower division courses for freshmen and sophomores, respectively.

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

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

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

Course Scheduling

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

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

- F = Fall Semester, every year
- S = Spring Semester, every year
- Se = Sequential; a series of courses is presented until all have been taught.
- Su = Summer Semester, every year
- AF, AS, ASu = Alternate Fall, Spring, or Summer Semester
- EF, ES, ESu = Even-numbered Fall, Spring, or Summer Semester
- OF, OS, OSu = Odd-numbered Fall, Spring, or Summer Semester
- D = Students should contact the Department to ask when this course will be offered.
- R1 = Course is rotated every year, either Fall or Spring
- R2 = Course is rotated every two years, either Fall or Spring
- R3 = Course is rotated every three years, either Fall or Spring
- W = Web (Internet) interactive course, scheduled in conjunction with Idaho State University semester(s); contact department for details.

Cross-listing

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

Placement into English and Mathematics Courses

English

1. Students with an ACT English score below 18, a Compass score below 68, or an SAT score below 441 register for ENGL 0090.

2. Students with an ACT English score of 18-24, a Compass score of 68-94, or an SAT score of 450-560 and students who have passed ENGL 0090 register for ENGL 1101.
3. Students with an ACT English score of 25-30, a Compass score of 95-99, or an SAT score of 570-690 receive 3 ENGL 1101-equivalent credits and register for ENGL 1102.

For questions regarding ACT scores over 30 or SAT scores of 700 or higher, contact the Department of English and Philosophy: (208) 282-2478.

Advanced Placement Options

Qualified students may satisfy the ENGL 1101 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 1101 course may proceed to ENGL 1102.
2. Students who have achieved scores of 3 or 4 on the Composition and Literature or the Language and Literature Advanced Placement Examination administered by Educational Testing Service receive a grade of “Satisfactory” and three ENGL 1101-equivalent credits. Students who receive a 5 on the same test(s) will receive two grades of “Satisfactory” and three ENGL 1101-equivalent credits and three ENGL 1102-equivalent credits.

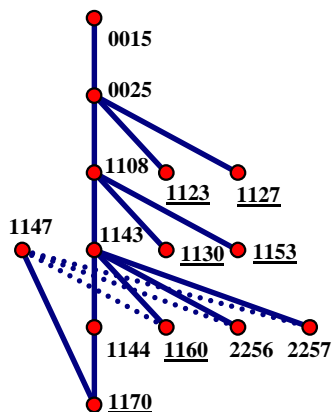
Because Goal 1 courses advance acquisition of writing skills important for academic success, students are encouraged to complete them in timely fashion. Accordingly, ENGL 1101 should normally be completed during the freshman year, ENGL 1102 by the conclusion of the sophomore year.

Mathematics

All mathematics courses except MATH 0015 have prerequisites. Students place into a course either by completing the prerequisite courses with a grade of C- or better (S in MATH 0015 and 0025) or by achieving appropriate scores on the ACT exam, SAT exam, or Compass mathematics placement exam. For placement purposes, prerequisite coursework or placement examinations must have been taken within the last seven years.

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

Figure 1. Goal 3 Prerequisite Tree



Courses that fulfill Goal 3 are underlined. The dotted lines indicate that MATH 1147 also fulfills the prerequisite for any course that has MATH 1143 as a prerequisite.

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

MATH Course(s)	ACT	SAT	Compass
0015 ¹	---	---	---
0025 ²	16	390	46 on Prealgebra (MAPL 1)
1108, <u>1123</u> , <u>1127</u> ³	19	460	45 on Algebra (MAPL 2)
<u>1130</u> , 1143, 1147, <u>1153</u> ⁴	23	540	61 on Algebra (MAPL 2)
1144, <u>1160</u> , <u>2256</u> , <u>2257</u> ⁵	27	620	51 on College Algebra (MAPL 3)
1170 ⁶	29	650	51 on Trigonometry (MAPL 4)

Notes:

1) There is no prerequisite course for MATH 0015, and no scores are necessary.

A student must:

2) Pass MATH 0015 or achieve one of the listed test scores to take MATH 0025.

3) Pass MATH 0025 or achieve one of the listed test scores to take MATH 1108, 1123, or 1127.

4) Pass MATH 1108 or achieve one of the listed test scores to take MATH 1130, 1143, 1147, or 1153.

5) Pass MATH 1143 or achieve one of the listed test scores to take MATH 1144, 1160, 2256, or 2257.

6) Pass MATH 1144 or 1147 or achieve one of the listed test scores to take MATH 1170.

Repeating Courses

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

Credit and Grading Policies

Credit or Credit Hour

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

One semester credit hour in academic courses requires (1) fifty minutes in class each week for one semester (which assumes approximately twice this amount of time in study and preparation outside the classroom), or (2) approximately two and one-half hours in laboratory each week for a semester, or (3) equivalent combinations of (1) and (2). For purposes of equivalency calculations a semester is assumed to be sixteen weeks. Short term courses of one week (five days) or more require time in class, laboratory, and preparation equivalent to the above for a total of 40 clock hours per credit.

Credits 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.

Class Levels

- Sophomore: 26 credits
- Junior: 58 credits
- Senior: 90 credits

The classification under which a student registers at the beginning of the academic year will continue through the year.

Grade Reports and Transcripts

Report cards are not automatically sent to students at the end of the semester.

Students who wish to order official Idaho State University transcripts will find the latest ordering information on the web at <http://transcripts.isu.edu> or call (208) 282-2919 for more information. Official transcript requests will be processed within 3 to 5 working days, unless there is a financial obligation on record for the student requesting the transcript. 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 rated in accordance with the following definitions:

A	4.00	excellent performance
A-	3.70	excellent performance
B+	3.30	good performance

B	3.00	good performance
B-	2.70	good performance
C+	2.30	adequate performance
C	2.00	adequate performance
C-	1.70	adequate performance
D+	1.30	marginal performance
D	1.00	marginal performance
D-	0.70	marginal performance
F	0.00	unacceptable performance

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 Meridian. A student's election of the +/- grading is final and cannot be reversed.

Other Grade Symbols

Other grading symbols used are: I - Incomplete; IP - Thesis work "in progress;" W - Withdrawal after the close of the registration period; P or NP - the Pass or No pass option; 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.

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.

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 institutions 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.

Undergraduate Student Dismissal Policy

Academic Probation

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

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

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

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

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

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

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

Academic Dismissal

Undergraduate students on Probation Two will be dismissed from the University if they obtain a semester GPA of less than 2.0 (and their cumulative ISU GPA does not meet minimum requirements) unless the undergraduate student is a freshman and has not attempted 12 or more Idaho State University credits (not including withdrawals).

Petition Policies

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

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

- a. When an undergraduate 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. **For readmission following a dismissal**, please see the Undergraduate Student Dismissal Policy above. Undergraduate students with extenuating circumstances that warrant a review of the dismissal status may petition the Readmission Review Board (RRB) located in the Academic Advising Center. Petitions must be accompanied by relevant documentation from appropriate sources and a thoughtfully prepared Readmission Statement. The RRB will be guided in its decision by evidence of academic potential and readiness to handle the curriculum in a satisfactory manner; evidence of motivation to pursue an educational goal; evidence of corrective measures undertaken by the undergraduate student. Readmitted undergraduate students will have stipulations placed upon their readmission which may include: repeating courses previously taken, limiting the number of credits attempted, enrolling in specific courses, having regular follow-up with an advisor or faculty member, receiving specific assistance from the Career Center, ADA, or other ISU resources, and/or participating in specified study labs or help groups. The deadline for petitions is August 1st for fall semester and December 1st for spring semester. Decisions reached by the RRB are final.

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

4. **Substitution of the general education requirements.** An undergraduate student who transfers from another institution may petition to have courses with similar content but different titles than those offered at Idaho State University substituted for courses listed in the general education requirements. Petitions must be approved by the department chairperson of the discipline in which the course being petitioned is offered.

5. **General education requirements deficiencies.** A transfer undergraduate 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 undergraduate students transferring to Idaho State from an institution which uses the quarter system rather than the semester system.

6. Pass-No-Pass option. An undergraduate 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 any 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 the 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 Meridian. It is also available on ISU’s website. Completed forms should be submitted to the Student Health Center within two weeks (10 working days) of the date of complete withdrawal. The application must include a narrative summary written by the student requesting the medical withdrawal as well as medical documentation from a physician or counselor describing the problem and their recommendations that withdrawal

due to illness is necessary. The Medical Withdrawal Committee then reviews the completed application and determines medical withdrawal eligibility.

Note: for refund information, see ISU's Refund Policy and Refunds for Exceptional Circumstances Policy in the ISU Undergraduate Catalog. If you wish to initiate an appeal for refund of fees, please contact Financial Services at 282-2287.

If the complete withdrawal deadline (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 those students not yet affiliated with any college). If the dean (or designee) grants the student a hardship withdrawal, the student may then pursue a medical withdrawal designation as outlined in the above paragraph. The dean (or designee) may choose instead to sign a referral allowing the Student Health Center to examine the evidence (always medically related) and determine whether a withdrawal is warranted. Only if a hardship withdrawal is granted, or a referral is signed by the dean's office, will the Medical Withdrawal Committee consider a request for a medical withdrawal 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.

Appeal of Denial of Readmission

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

Mandatory Medical/Psychiatric Withdrawal

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

If a psychological/psychiatric evaluation is required and the student does not comply within a reasonable time or refuses to comply, mandatory withdrawal may be ordered by either director. The responsible director shall submit a written report to the Medical Withdrawal Committee and the Vice President for Student Affairs summarizing the need for mandatory withdrawal and the

reasons for the action. The student and the director will have the opportunity to present information to the Medical Withdrawal Committee. The Medical Withdrawal Committee shall convene at the earliest reasonable time for final determination of disposition. If the physician ordering the withdrawal is also on the Medical Withdrawal Committee, another physician from the Student Health Center or the Center Director will be appointed to sit on the committee for that case.

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

Other Policies

Academic Study Day Policy

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

Closed/Finals Week Policy

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

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

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

Final Examinations

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

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

Saturday Classes–Vacation Policy

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

Alternative Credit Opportunities

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

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

- National Student Exchange
- Study Abroad
- Individualized Degree Programs
- Cooperative Education Programs

A maximum of 32 credit hours granted through any combination of the means listed above may be counted toward an associate degree; a maximum of 64 credit hours may be applied to a baccalaureate degree. Credits earned through any of the above means affect total credits toward a particular degree but generally do not impact the student's grade point average. Grades for all said credits, except challenge and correspondence/distance learning, are recorded as Satisfactory (S). The student is responsible for providing Idaho State University with an official copy of grades/scores from the appropriate educational, testing, or reporting agency.

When the credit awarded is dependent upon evaluation by Idaho State University faculty, such as Experiential Learning Assessment and Challenge, credit will be counted as resident credit; that which is standardized or not evaluated by Idaho State University faculty will be counted as non-resident credit.

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

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

College Entrance Examination Board Advanced Placement Program (AP)

Idaho State University affirms the principle of advanced placement and acknowledges the accomplishments of students who have taken college level courses in high school. The University encourages participation in the College Entrance Examination Board Advanced Placement Program.

The CEEB Advanced Placement Examinations are administered each May at most high schools. For more information about the tests, students should contact their Advanced Placement instructor or high school counselor. The tests and students'

ratings are sent to the University at the individual student's request.

Advanced Placement Examination credit will not be posted on an official Idaho State University transcript to other agencies or institutions until the student is a *registered* Idaho State University student. Credit from Advanced Placement is classified as non-resident credit.

Advanced Placement Scores Required for Credit

Idaho State University will grant credit for approved AP exams and scores. Contact the Office of the Registrar or academic departments for further information. An "S" grade is entered on the student's record for credit earned in this way. Credit for AP examinations transferred from another institution is subject to evaluation based on the rules and regulations of Idaho State University. See the General Education Program pages earlier in this section of the catalog for information about applying Advanced Placement scores to some of the Goals.

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 examina-

tions transferred from another institution is subject to evaluation based on the rules and regulations of Idaho State University. Transfer students need to submit official CLEP score reports for Idaho State University evaluation. CLEP credits cannot be granted for college courses previously taken. Credit from CLEP is classified as non-resident credit.

Information including costs may be obtained from the website <http://www.isu.edu/ctc/> or by contacting the Counseling and Testing Center at Idaho State University at (208)-282-2130.

Counseling and Testing Center,
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 ex-

amination be undesirable to the student, the student may take the course for credit to change the grade.

- Credits obtained by challenge examination are not used in determining a semester's credit load or for financial aid purposes in the semester in which the examination is taken.
- Grades obtained by challenge examination are not used in determining grade point average for that semester, but are used in calculating the cumulative grade point average.
- A student may complete a total of 24 credits by challenge examination toward an associate degree.
- A student may complete a total of 48 credits by challenge examination toward a baccalaureate degree.
- The cost of each credit earned by challenge examination is 33% of the current cost per credit hour, payable to the Idaho State University Cashier's Office *prior to the examination*.
- Credits earned by passing a challenge examination are considered resident credit.

Credit for Military Service (Military Transcript Information)

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

Credit through DANTES

The College Level Examination Program (CLEP) general and specific subject-area examinations administered through Defense Activity for Nontraditional Education Support (DANTES) are treated in the same manner as those taken through the traditional CLEP. Only elective credits may be granted to those completing the general examinations, while subject-area CLEP examinations may satisfy specific 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
indepst@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.

Students may register for Study Abroad credits after their program is approved by an advisor and the Office of International Programs and Services. The course description is as follows.

Study Abroad Courses

STUA 200, 300, 400 Study Abroad 12-18 credits each. Pre-arranged, planned courses of study at selected academic institutions outside of the United States. Student is responsible for resident credit arrangements with department(s) and the Office of International Programs and Services prior to departure. Prefix and course name will be replaced on Idaho State University transcript when study abroad transcript arrives. Graded S/U. F, S, Su

Individualized Degree Programs

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

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

Bachelor of Applied Science or Bachelor of Applied Technology

The Bachelor of Applied Science (BAS) and the Bachelor of Applied Technology (BAT) degrees are interdisciplinary degrees designed specifically for students who have completed Associate of Applied Science (AAS) degrees approved by the Idaho State Board of Education. The purpose of these degrees is to provide AAS graduates the opportunity to expand their general education competencies and to enhance the technical coursework of their

AAS with related academic coursework. These degrees build upon the knowledge a student gained through the pursuit of the AAS while providing the education and critical-thinking skills that open career opportunities. The BAS and BAT degrees are administered through the Student Services Office in the College of Technology. All individual degree plans are approved by assigned advisors and a committee.

The BAS/BAT degree includes the following credit requirements:

Requirements	Electronic Systems Technology 3-year A.A.S.	All Other ISU C/Tech A.A.S. Programs
PTE credits applied toward the BAS/BAT degree*	76 (58 lower division credits awarded; 18 upper division credits awarded; for coursework completed for A.A.S. degree)	Up to 50 credits (all lower division credits)
General Education Requirements, 16 credits of which will be completed in the A.A.S.	Approximately 31	Approximately 34
Academic Coursework**	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)	44 (36 of the 44 academic credits must be upper division credits)
TOTAL MINIMUM CREDITS REQUIRED	136	128

*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) 282-3939
<http://www.isu.edu/apptech/BAT.shtml>

Bachelor of Science in Health Science

The objective of the Bachelor of Science degree program with a major in Health Science 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 degree with a major in Health Science 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 Avenue 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

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 Student Success Center. The ESOL program provides tutorial and other support services for international students already

enrolled at Idaho State University. ELS, by contrast, serves as an initial point of entry for other international students who seek full-time English-language instruction, and who intend to complete this training to enroll at Idaho State University or another institution of higher education.

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

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

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 sup-

port 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 Interstate Commission for Higher Education

(WICHE) Programs

Professional Student Exchange Program

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

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

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

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

Western Regional Graduate Program

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

Graduate School
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:

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 informa-

tion is available online at: <http://www.isu.edu/summer>

Distance Learning

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

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

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

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

Idaho State University Education Centers

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

Idaho State University—Meridian

Dean, Academic Programs:
Ms. Bessie Katsilometes

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

In keeping with Idaho State University's mission to educate health professionals and address the need for graduates in the

health disciplines, Idaho State University—Meridian offers several programs in the health professions.

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

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

Student applications and enrollment materials are available at Idaho State University—Meridian.

Idaho State University—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

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 games areas, cafeteria, lounge, bookstore, and computer lab.

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

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

Idaho State University–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 communication, nursing, pharmacy, political science, psychology, rhetorical studies, social work, sociology, women studies, and vocational education have all been presented in this way. Regularly scheduled courses are enhanced by courses Idaho State University delivers to area school districts for teacher development. Workshops and seminars in specific professional development areas are also available.

Access to Internet, email, and a large variety of software augments the Idaho State University student experience in a 20-station computer lab networked with the main cam-

pus. Twin Falls area Idaho State University students who have home computers with modems may access the network with a local phone call. Free computer workshops are routinely scheduled in the lab.

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

Division of Continuing Education and Conference Services

Ms. Victoria Bañales, Director
Division of Continuing Education
and Conference Services
1001 N 7th Ave. Stop 8062
Pocatello ID 83209-8062
(208) 282-3155
e-mail to: extendedlearning@isu.edu
<http://www.isu.edu/conteduc>

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

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

Continuing Education and Training. More than 15,000 people participate annually in 400 activities.

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

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

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

CEU Program

The Continuing Education Unit is an internationally accepted method for quantifying the value of noncredit continuing education activities (defined as quality instruction that does not carry academic credit). Each contact hour in an approved workshop, inservice, conference session, short course or training program is recorded as 1/10 CEU. These do not accumulate for college credit. Noncredit continuing education programs that offer CEUs are most frequently sponsored by associations, agencies, educational institutions, business and industry for the benefit of members, registered participants, employees, etc. It communicates to participants the value that the sponsoring group places upon professional development, information updating, retraining and lifelong learning. There is a recording fee of \$20 per class to create a permanent transcript that is then available through the Idaho State University Registrar's Office upon written request.

New Knowledge Adventures and Friends for Learning

Under the direction of the former Elderhostel organization, now known as Exploritas, Idaho State University has developed these programs 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 semester at a time and all programs are open to them in Pocatello (New Knowledge Adventures) and Idaho Falls (Friends for Learning).

Conference 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. Website: <http://www.isu.edu/confsvcs>

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, telecommunication relay services, 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)

Pond Student Union, Room 215
921 S 8th Ave Stop 8125
Pocatello ID 83209-8125
(208) 282-3435

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

Athletics Department

Holt Arena
<http://isubengals.cstv.com/>

The Athletic Department at Idaho State University is a Division I (FCS) member of the National Collegiate Athletic Association (NCAA) and the Big Sky Conference. Men's sports offered are basketball, cross

country, football, tennis, and indoor and outdoor track and field. Women's sports offered are basketball, cross country, golf, soccer, softball, tennis, indoor and outdoor track and field, and volleyball. In addition, Idaho State University has extensive participation in a wide variety of club sports, 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.

Campus Recreation Department

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

The Campus Recreation Department is located in the Student Recreation Center south of Reed Gymnasium. The Recreation Center offers 100,000 sq. ft. of recreation space and houses indoor courts for tennis, racquetball, and basketball; weights, fitness machines, cardio areas and an indoor track. It also houses one of the northwest's largest indoor climbing walls. An addition completed in the summer of 2010 offers an airy and open environment for a daily workout. Intramural programs are also available through Campus Recreation with as many as 30 activities to choose from. Please contact Campus Recreation at 282-4854 or at the web site at www.isu.edu/camprec.

Career Center

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 occupa-

tions 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

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

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

Craft Shop

Pond Student Union, First Floor
921 S 8th Ave Stop 8119
(208) 282-3281
www.isu.edu/stunion/craftshop

The Craft Shop 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

Pond 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 semester, the Student Activities Board, Union Program Council, 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 Pond Student Union houses a Games Center with video games, billiards, and bowling. For the more relaxed crowd, television sets are located in the Bengal Café and the lower level of the Pond Student Union.

International Programs and Services

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

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

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

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

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

Janet C. Anderson Gender Resource Center

Graveley Hall, North Wing
921 S 8th Ave Stop 8141
Pocatello ID 83209-8141
(208) 282-2805
24-hour crisis line: (208) 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. Issues that concern us include defining masculinity, maintaining healthy relationships and addressing the culture of male violence, including violence against women. Group

members are involved in any or all of these activities: giving educational presentations, planning events, and hosting group discussions.

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

Additionally, we offer internship, practicum, and volunteer opportunities for Idaho State University students, faculty, and staff as well as educational presentations on related topics, including domestic violence, sexual assault, stalking, healthy relationships, HIV/AIDS (including prevention), diversity, and other topics.

The Anderson Center is open to all members of the Idaho State University community regardless of gender identification, sexual orientation, ethnic or cultural background, religion, abilities, or age--everyone is welcome!

Everyone who is a part of the Center, whether staff, intern, or volunteer, strives to ensure that all Center services and activities will be: accessible and available, provided in safe and comfortable surroundings, of high quality, and of interest to the Idaho State University community. The opportunities at the Center are limited only by the imaginations of those who choose to participate.

Leadership 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) 282-2794
fulljim@isu.edu
www.isu.edu/lead

Outdoor Adventure Center

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

Here is your ticket to adventure, fun and smiles! Students, faculty and staff are invited to participate in any or all of the Outdoor Adventure Center's activities. The Center offers common adventure based outings and classes such as canoeing, climbing, cross-country skiing, kayaking, rafting, backpacking, caving, mountain biking, horseback riding, mountaineering, orienteering, and camping. 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

Pond Student Union, Hypostyle Room 299
921 S 8th Ave Stop 8354
(208) 282-2297

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

Student Activities Board

Student Leadership and Involvement
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) 282-2330

The Student Health Center provides the entire range of medical office care as is provided at a hometown doctor's office. This includes everything from colds and flu to treatment of high blood pressure and diabetes. We care for broken bones, lacerations, abscesses, and other urgent care problems. Preventative health ser-

vices such as immunizations, nutrition counseling, and birth control are areas of particular interest.

All full-time fee paying students (12 credits or more) are eligible to see a care provider at the Student Health Center at no charge. (Student insurance is not required to utilize the Health Center.) Part-time students and spouses of full-time students are charged a clinic fee to see a care provider. The Student Health Center bills private insurance as well as student insurance when billable services such as laboratory tests, X-ray studies, special procedures, etc. are performed. Same day appointments are available as well as advance appointments. A walk-in clinic is held each day. A valid Bengal ID card is required to obtain services.

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

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.

Student Organizations & Greek Life

Involvement Center
Pond Student Union, First Floor
921 S 8th Ave Stop 8170
(208) 282-3451

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

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

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

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

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

Regulations for Fraternity and Sorority recruitments are determined by the National Panhellenic Conference and the fraternity organizations.

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

Students' Community Service Center (SCSC)

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

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

University Counseling and Testing Services

In Pocatello:
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/>

Counseling Service

The staff of the University Counseling and Testing Service are available to assist students who are encountering personal, social, and emotional difficulties while enrolled at Idaho State University. During an initial assessment process, the student and counselor discuss the student's needs and concerns and decide upon an appropriate counseling plan. Individual, couples, and group counseling are available. When appropriate, the counselor will assist the student with a referral. We can usually counsel students with concerns such as anxiety, depression, low self esteem, lack of motivation, eating problems, stress, grief, and interpersonal relations including couple and family problems.

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

Consultation and Crisis Intervention Services

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

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

Outreach Services

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

Testing Service

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

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,

All-University Academic Services

Administered by the Office of the Provost and Vice President for Academic Affairs

Student Success Center

Executive Director: Cynthia D. Hill, Ph.D.

Rendezvous Building, Room 323
921 S 8th Ave Stop 8010
Pocatello ID 83209-8010
(208) 282-3662

Center for Higher Education, Room 220
1784 Science Center Dr
Idaho Falls ID 83402
(208) 282-7925

The Student Success Center coordinates a variety of free advising, tutoring, academic success classes, the Service-Learning Program, the federally-funded TRiO Program, and the University Honors Program.

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 1101 College Learning Strategies 1 credit. Covers learning strategies and study techniques (notetaking), textbook study, test preparation, memory, time management, etc. which promote academic success. Especially recommended for new students and re-entry students. F, S, Su, W

ACAD 1102 First Year Seminar 1 credit. Provides an extended orientation to the University for new students. Utilizes presenters from

various campus support systems, collaborative learning activities, and written assignments which involve students in resources and activities on campus. F, S

ACAD 1103 College Learning Strategies for Mathematics 1 credit. Covers math anxiety, notetaking, homework, textbook study, learning styles, test preparation and problem solving. COREQ: Any MATH course. F, S

ACAD 1104 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 1110 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 2210 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 2220 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. May be repeated for a maximum of 4 credits. COREQ: Peer instructor in ACAD 102. F, S

ACAD 3310 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. PRE-REQ: Permission of instructor. Graded S/U. D

Central Academic Advising

JoAnn Hertz, Director
Museum Building, Room 307
921 S 8th Ave Stop 8054
(208) 282-3277

Central Academic Advising is a service available through the Office of Enrollment Planning and Academic Services. Its main purpose is to assist first-year, undecided, and admission agreement students in making academic decisions. Central Academic Advising provides information about campus resources, guidance in developing course schedules and degree plans, clarification of campus policies and procedures,

cardiotone, and toning. All classes are held at Idaho State University Reed Gym.

The Wellness Center also offers fitness assessments to Idaho State University students. This includes cardiovascular endurance, body composition, blood pressure, flexibility, abdominal strength and health risk appraisal. 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 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 and Health Care Administration at (208) 282-2729; office hours are 7:30 a.m. through 4 p.m., Monday through Friday.

The Veterans Sanctuary Program

The Veterans Sanctuary is a national-award-winning transition and support program for student veterans and current military members attending Idaho State University. The program, which began fall semester 2009, aims to make ISU one of the most "veteran friendly" campuses in the United States by simplifying access to services. The Sanctuary includes a team of staff and student representatives, many of whom are veterans themselves. Rather than directing our student veterans to a Website, we want to sit and talk with vets about their individual needs so we can provide the best support possible. If students are lost, or need to find a particular campus location, we will walk them there rather than handing them a map. We offer free tutoring, veterans-only sections of some general education classes to help with the transition to college, and much more. We also work closely with the ISU Armed Forces Veterans Club, the state's only student veterans' organization on a college campus. This fall in Pocatello, we will open the first veterans' residence hall on a college campus in the United States, ISU Veterans Hall at Nichols.

For more information, contact Program Coordinator Casey Santee at (208) 282-4298.

and support in developing effective time management strategies.

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

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 (ACAD 1101). 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.

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 1100 Introduction to American Culture and Language (3 credits, for a letter grade). See the description of ENGL 1100 Introduction to Academic Writing and Speaking for Non-Native Speakers of English (3 credits, graded Satisfactory/Unsatisfactory) in the

“English Courses” in the Department of English and Philosophy, also in the College of Arts and Sciences.

First Year Seminar (FYS)

The First Year Seminar course (see ACAD 1102, listed above), 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.

Mandatory Advising

The Mandatory Advising program is required for academic degree seeking freshman students for the first two semesters of attendance at Idaho State University and for transfer students for the first semester of attendance. Students subject to mandatory advising may complete the advising sessions online (see <http://www.isu.edu/advising/madvising.shtml>) or meet with an Advisor for this purpose.

Undergraduate international students may see the Director of International Programs Office for advising. Mandatory advising applies to all international students, including international graduate students. Moreover, all international students are required to attend an orientation to the University coordinated by the Director of International Programs and Services. International graduate students are also required to meet with an advisor from their major department.

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

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 Pocatello, Idaho Falls, and online to help students improve the quality of t

heir writing for undergraduate and graduate courses in all subjects. Tutors are available to work with students at any stage of the writing process, from generating ideas to revising full drafts. They assist with organization and development of ideas for particular audiences and purposes, as well as with issues of punctuation and usage.

TRiO Student Services

Museum Building, Room 434
921 S 8th Ave Stop 8345
Pocatello, ID 83209-8345
(208) 282-3242

TRiO Student Services is a multifaceted, federally funded student assistance program geared to preparing eligible students to enroll in and graduate from post-secondary education. In order to participate in any of the TRiO programs, potential participants must meet the following criteria:

- Two-thirds of participants must meet federal low-income guidelines AND be first-generation college students.
- Remaining one-third of participants may be low-income OR first-generation college students OR have a documented physical, psychological, or learning disability.
- Students must have a need for program services.

Note: TRiO eligibility criteria will vary with individual programs.

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

PRE-COLLEGE PROGRAMS

Educational Talent Search (ETS) works with eligible program participants who are in the 8th through 12th grades and have potential to be successful in college. Students receive tutoring, assistance with study skills, organizational skills, test taking strategies, and career exploration. They also attend field trips and cultural activities, and participate in community service projects and technology workshops. During their senior year they are also provided help with admission/financial aid forms and obtaining other information that will prepare them to enter the college of their choice.

Upward Bound (UB) assists eligible 9th through 12th grade students in preparing for the challenges of a postsecondary education. The program consists of an intense academic summer component and a follow-up component during the school year. The summer program is held on the Idaho State University campus. For eight weeks students are taught by certified high school teachers and receive credit toward high school graduation in most of the traditional academic disciplines including math, English, science, and foreign languages. Study skills, test taking strategies, and career exploration are incorporated into the summer curriculum and additional academic support services such as tutoring are provided by Tutor/Mentors. The academic year follow-up program is geared to supporting the curricular and academic support activities students experience during the summer. Regular tutoring and other academic enhancement services are provided to students throughout the school year.

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 leading to their completion of a baccalaureate degree.

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 sciences, and natural sciences. They are designed for students who are motivated to develop their critical and creative thinking in a more personalized atmosphere than may be expected in normal lower division courses. These courses are offered in small classes (25 maximum enrollment) by interested faculty, deal with broad and/or interdisciplinary issues, and confront some aspect of the human condition. Innovative teaching and assignments are encouraged, and interaction with faculty and class members is lively.

The University Honors Program curriculum fulfills many of the General Education Requirements: First year: goals 1, 6, 7, 10A, and 11. Second year: Goals 4 and 5; other goal courses may be offered.

Admission

Admission to the University Honors Program is competitive. Please check <http://www.isu.edu/honors> for admission requirements.

Transfer students from honors programs at other institutions are welcome to apply to the University Honors Program, and honors credits will be evaluated. Students who wish to enter the program in their sophomore or junior years should consult with the honors program director.

Student Progress

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

Interdisciplinary Seminars

University Honors Degree students are required to complete two upper division interdisciplinary seminar courses (HONS 391, 1 credit, a repeatable course) during the junior and senior years. In general, at least one Honors seminar will be offered each semester.

Honors Contract Courses

In addition to the interdisciplinary seminars, each University Honors student must complete a minimum of 6 credits of Honors Contract courses in the student's major or minor. Honors Contract courses are departmental courses offered under an "honors contract" between the student and instructor. An Honors Contract course requires that the student and instructor agree, on a case-by-case basis, to a set of requirements for the course. All honors contracts must be approved by the Honors Program Director. In general, 3000- and 4000-level courses are available for Honors Contract credit, as designated by each department.

Capstone Project or Thesis

Each University Honors Degree student is required to complete an honors project or thesis at the senior level in the department of his or her major. The capstone project (3-6 credits) requires the Honors student to prepare a project proposal for review by a departmental Honors Advisor. The project could be a research-based senior thesis or another appropriate project. The completed project is presented in a public forum and defended before a committee comprised of the Honors Advisor within the major department, another faculty member in the department, and the Director of the University Honors Program. Appropriate public venues for the presentation include but are not limited to: a departmental seminar, the Idaho State University Undergraduate Research Symposium, an honors regional or national conference, or a discipline specific conference.

Graduation from the 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
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This course meets Goal 8.

Third and Fourth Years

HONS 391	Honors Interdisciplinary Seminar (1 cr, repeated)	2 cr
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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 1101 Honors Humanities I 3 credits.
A writing-intensive interdisciplinary course examining relationships between the arts and letters from the Classical Age through the Enlightenment. With HONS 1102, 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 F

HONS 1102 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 1101, 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 1103 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. With HONS 104, satisfies Goals 10A and 11 of the General Education Requirements. F

HONS 1104 Honors Social Science II 3 credits.
A writing-intensive interdisciplinary course examining the relationships in the social sciences from the nineteenth century to the present. With HONS 103, satisfies Goals 10A and 11 of the General Education Requirements. S

HONS 2201 Honors Science I 4 credits. First of a two-course sequence. An interdisciplinary examination of the processes by which scientific knowledge is gained in biology, physics, chemistry, and geology and how that knowledge influences our world, especially human societies. Includes laboratory. With HONS 202, fulfills Goals 4 and 5 of the General Education Requirements. PREREQ: MATH 108 or equivalent. F

HONS 2202 Honors Science II 4 credits. Second course in the introduction to science for honors students. A continuation of the concepts developed in HONS 201. Includes laboratory. With HONS 201, fulfills Goals 4 and 5 of the General Education Requirements. PREREQ: MATH 108 or equivalent.

HONS 3391 Honors Seminar I 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 4493 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.

College of Arts and Sciences

(Vacant) 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" (in the Admissions portion of the General Information section of the Catalog).

Major Requirements

In addition to the general education component, all Bachelor of Arts and Bachelor of Science degree programs require a concentration in a departmental major of at least 24 credits, of which at least 16 credits must be in courses numbered 3000 and above. The particular course requirements of the departmental majors in the College of Arts and Sciences are outlined under the department headings in the catalog.

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

interviews to prepare students for the health professional programs application processes.

Pre-Health Advisor: Becky Connell

Committee Members:

Dr. Ralph Baergen
English and Philosophy

Ms. Cynthia Bunde
Physician Assistant Studies

Dr. Elizabeth Cartwright
Anthropology

Dr. Lyle Castle
Chemistry

Dr. Tony Cellucci
Psychology

Dr. Karl DeJesus
Chemistry

Dr. Barbara Frank
Biological Sciences

Dr. James Groome
Biological Sciences

Dr. Cynthia Hill
Economics

Dr. Jeffrey Meldrum
Biological Sciences

Dr. Alex Urfer
Physical Therapy

Dr. Derek Wright
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 1101, 1101L	Biology I, and Lab	4 cr
BIOL 1102, 1102L	Biology II, and Lab	4 cr
BIOL 2206	Cell Biology and Lab	4 cr
CHEM 1111, 1111L	General Chemistry I, and Lab	5 cr
CHEM 1112, 1112L	General Chemistry II, and Lab	4 cr
CHEM 3301	Organic Chemistry I	3 cr
CHEM 3302	Organic Chemistry II	3 cr
CHEM 3303	Organic Chemistry Laboratory I	1 cr
CHEM 3304	Organic Chemistry Laboratory II	1 cr
ENGL 1101	English Composition	3 cr
ENGL 1102	Critical Reading and Writing	3 cr
PHYS 1111	General Physics I	3 cr
PHYS 1112	General Physics II	3 cr

PHYS 1113-1114 General Physics Laboratory I and 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 4000 which are required by the zoology curriculum. Students are advised to consult with the Assistant Chair for Undergraduate Programs of the Department of Biological Sciences or the Pre-health Advisor early in their undergraduate programs if they plan to pursue this program option. Students should be aware that 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.

Dentistry

The Idaho State University courses listed above provide a core for pre-dental requirements of most dental schools. However, some dental schools have additional requirements. The most current admission requirements for each dental school are described on the schools' websites, which can be accessed through the American Dental Education Association website at www.adea.org, or by consulting the latest

edition of "ADEA Official Guide to Dental Schools," published by the American Dental Education Association, 1625 Massachusetts Avenue NW, Washington, D.C. 20036. A copy of this guide is available in the Pre-health Professions Advising Office. All dental applicants must take the Dental Admission Test (DAT), and have shadowed a practicing dentist prior to applying to the individual schools of dentistry.

Cooperative Program with the Creighton University School of Dentistry

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

Medicine

The undergraduate courses required by most medical schools 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, or by consulting the latest edition of "Medical School Admission Requirements, USA and Canada," published by the Association of American Medical Colleges, One Dupont Circle NW, Washington, D. C. 20036. 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 optometry schools are described on the schools' websites, which can be accessed through the Association of Schools and Colleges of Optometry (ASCO) website at www.opted.org, or by consulting the latest edition of "Schools and Colleges of Optometry Admission Requirements." This is an electronic publication available on the ASCO website. All optometry applicants must take the Optometry Admission Test (OAT). Several optometry schools are members of the Western Interstate Commission for Higher Education (WICHE) and will therefore give preference to applicants who are residents of WICHE states, such as Idaho. To be considered for the WICHE program, Idaho residents must apply to the participating optometry schools, and meet all other admission requirements. Additional information about the WICHE program is available in the Pre-health Professions Advising Office.

Osteopathic Medicine

Admission requirements and undergraduate prerequisite courses for schools of osteopathic medicine are nearly identical to those described under medicine. More information about osteopathic medicine and admission requirements for the individual schools of osteopathic medicine can be found at the American Association of Colleges of Osteopathic Medicine (AACOM) website at www.aacom.org or by consulting the Pre-health Advisor. All osteopathic medical applicants must take the Medical College Admission Test (MCAT), and have shadowed a practicing physician prior to applying to the individual schools of osteopathic medicine.

Podiatric Medicine

The undergraduate courses listed above are required by most podiatric medical schools. However, some podiatric medical schools may have additional requirements. The most current admission requirements for podiatric medical schools are described on the schools' websites, which can be accessed through the American Association of Colleges of Podiatric Medicine website at www.aacpm.org, or by consulting the latest edition of "Podiatric Medical Education," available from the American Association of Colleges of Podiatric Medicine, 1350 Piccard Drive, Suite 322, Rockville MD 20850. A copy of this publication is available in the Pre-health Professions Office. All podiatric medical applicants must take the Medical College Admission

Test (MCAT). In addition, most schools of podiatric medicine expect applicants to have shadowed a practicing podiatrist prior to applying to the individual schools of podiatry.

Veterinary Medicine

The undergraduate courses listed above provide some guidance for the pre-veterinary medicine student. However, significant differences in pre-veterinary requirements by the various schools of veterinary medicine require that students obtain a specific list of requirements for each school. The most current admission requirements for veterinary medicine schools are described on the schools' websites, which can be accessed through the Association of American Veterinary Medical Colleges (AAVMC): 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
- American Dental Education Association: www.adea.org

Medicine*Allopathic (M.D.)*

- Association of American Medical Colleges (AAMC): www.aamc.org

Osteopathic (D.O.)

- American Association of Colleges of Osteopathic Medicine (AACOM): www.aacom.org

Podiatric (D.P.M.)

- American Association of Colleges of Podiatric Medicine (AACPM): www.aacpm.org

Occupational Therapy

- American Occupational Therapy Association: www.aota.org

Optometry

- Association of Schools and Colleges of Optometry (ASCO): www.opted.org

Physical Therapy

- American Physical Therapy Association (APTA): www.apta.org

Physician Assistant

- American Academy of Physician Assistants: www.aapa.org

Veterinary Medicine

- Association of American Veterinary Medical Colleges (AAVMC): www.aavmc.org

Chiropractic

- Association of Chiropractic Colleges: www.chirocolleges.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 Loebs, 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 upper division Arts and Sciences courses are required, but not more than a total of 40 upper division 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.

Associate of Arts in General Studies

This degree requires completion of the following program:

All of the General Education Goals (10A and 10B)	37 - 53* cr
Additional lower division courses in the humanities	6 cr
Additional lower division	

courses in the social sciences	6 cr
Electives (lower division)	0 - 15 cr
TOTAL:	64 cr

*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.

American Studies Program

Director and Professor: Adkison (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.

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 2200 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)

AMST 2200	Introduction to American Studies	3 cr
AMST 4403	Senior Project	3 cr
ENGL 2277 or 2278	Survey of American Literature I or II	3 cr
HIST 1118	U.S. History and Culture	3 cr
POLS 1101	Introduction to American Government	3 cr

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 1103	Creative Process	3 cr
ART/MC 2210	History and Appreciation of Photography	3 cr
DANC 1105	Survey of Dance	3 cr
MUSC 1106	American Music	3 cr
THEA 1101	Appreciation of Drama	3 cr

2. Literature

ENGL 2211	Introduction to Literary Analysis	3 cr
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3. Language Studies

ANTH/ENGL/LANG 1107	Nature of Language	3 cr
ENGL 2280	Grammar and Usage	3 cr
ENGL 2281	Introduction to Language Studies	3 cr

4. Communication

MC 1119	Introduction to Mass Media	3 cr
COMM 2208	Group Communication	3 cr
COMM 2254	Organizational Communication	3 cr

5. History

HIST 2291	The Historian's Craft	3 cr
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6. Women Studies

W S 2201	Introduction to Women Studies	3 cr
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7. Social Sciences: Culture and Society

ANTH 2203	Introduction to Archaeology	3 cr
ANTH 2230	Introduction to Biological Anthropology	3 cr

ANTH 2250	Introduction to Sociocultural Anthropology	3 cr
ANTH/ENGL 2212	Introduction to Folklore/Oral Traditions	3 cr
SOC 2206	Sociological Methods	3 cr

8. Social Sciences: Economics and Politics

ECON 1100	Economic Issues	3 cr
ECON 2201	Principles of Macroeconomics	3 cr
ECON 2202	Principles of Microeconomics	3 cr
POLS 2202	Introduction to Politics	3 cr
POLS 2221	Introduction to International Relations	3 cr

Thematic, Special, or General Option (at least 24 cr each)

Choose an Option from A, B, or C below.

A. Thematic Option

Each of the tracks in the Thematic Option includes requirements for a Minor. Choose from the following 9 tracks:

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

Required Disciplinary Methods Courses:

ANTH/ENGL/LANG 1107	Nature of Language	3 cr
ENGL 2211	Introduction to Literary Analysis	3 cr

Required Course:

ENGL 3301	Writing About Literature	3 cr
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Plus four of the following:

ANTH/ENGL 3367	Language in the United States	3 cr
ANTH/ENGL 4453	American Indian Literature	3 cr
ENGL 2277 or 2278*	Survey of American Literature I or II*	3 cr
ENGL 3353	The West in American Literature	3 cr
ENGL 3356	Ethnicity in Literature	3 cr
ENGL 4480	Varieties of American English	3 cr

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

*(whichever is not taken for the American Studies Core)

Contextual Electives:

Choose three courses from the following list, with at least one course upper-division and no more than two courses from the same department:

ANTH 2238	Peoples and Cultures of the New World	3 cr
ANTH 2239	Latino Peoples and Cultures	3 cr
ANTH 4452	American Indian Verbal Arts	3 cr
ANTH/HIST 2258	Native American History*	3 cr
ANTH/POLS 4478	Federal Indian Law	3 cr
ANTH/POLS 4479	Tribal Government	3 cr
ART 4424	Twentieth Century Art	3 cr
HIST 2251	Latin America*	3 cr
HIST 2252	East Asian History*	3 cr
HIST 2254	Middle Eastern Civilization*	3 cr
HIST 2255	African History and Culture*	3 cr
HIST 3307	Early North America	3 cr
HIST 4435	Colonial Frontiers	3 cr

SOC 2248	in America and Africa	3 cr
SOC 2248	Social Diversity	3 cr
SOC 3366	The Community	3 cr

* Only one course from the HIST 25X sequence may be applied to the American Literature in Context Track.

American Cultures Track 2

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

Consultation with the Director of the American Indian Studies Program is required.

Required Courses:

ANTH 1100	General Anthropology	3 cr
ANTH 2238	People and Cultures of the New World	3 cr
ANTH 4466	Current Issues in Indian Country	3 cr
ANTH 4476	Seminar in American Indian Studies	3 cr
Plus 2 additional approved upper-division American Indian Studies courses		6 cr

Plus one of the following:

ANTH/HIST 2258	Native American History	3 cr
ANTH/POLS 4478	Federal Indian Law	3 cr
ANTH 4452	American Indian Verbal Arts	3 cr
ANTH 4454	Survey of American Indian Languages	3 cr
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:

ANTH/ENGL 4490	Topics in Folklore	3 cr
ENGL 3353	The West in American Literature	3 cr
ENGL 3356	Ethnicity in Literature	3 cr
HIST 2251	Latin America	3 cr
HIST 3307	Early North America	3 cr
HIST 4421	Federal Indian Relations	3 cr
HIST 4435	Colonial Frontiers in America and Africa	3 cr
SOC 2248	Social Diversity	3 cr
SOC 3366	The Community	3 cr

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 1107	Nature of Language	3 cr
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--for Communications/Rhetoric:

MC 1119	Introduction to Mass Media	3 cr
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Required Courses:

ANTH/ENGL 3367	Language in the United States	3 cr
ANTH 4454	Survey of American Indian Languages	3 cr
ENGL 2281	Introduction to Language Studies	3 cr
ENGL 4480	Varieties of American English	3 cr
One year of a foreign language in addition to the 8 credits of foreign language required under General Education Goal 10B		8 cr

Plus one of the following:

ANTH/ENGL/LANG 4455	Introduction to Phonetics	3 cr
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ENGL 4485	Linguistic Analysis	3 cr
PHIL 4410	Philosophy of Language	3 cr

Contextual Electives:

1. **Area Studies:** 9 credits, at least 3 upper-division, chosen from History, Anthropology, and English in a culture area of the student's choice and approved by the American Studies director and committee.

OR

2. **Communications/Rhetoric:** 9 credits chosen from:

COMM 4451	Recent Rhetorical Issues	3 cr
COMM 4442	American Rhetoric and Public Address	3 cr
MC 2290	American Broadcasting	3 cr
THEA 4420	American Theatre	3 cr

American Cultures Track 4**The American West (24 cr)**
(includes 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 2291	The Historian's Craft	3 cr
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Plus three of the following:

At least one must be HIST 1101 or 1102.

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

Plus two of the following:

HIST 4421	Federal Indian Relations	3 cr
HIST 4423	Idaho History	3 cr
HIST 4425	Women in the North American West	3 cr
HIST 4427	North American West	3 cr
GEOL/HIST/POLS 4471	Historical Geography of Idaho	3 cr

Contextual Electives

Choose three courses from the following; at least two must be upper-division:

ANTH 2238	Peoples and Cultures of the New World*	3 cr
ANTH 2239	Latino Peoples and Cultures	3 cr
ANTH/ENGL 4453	American Indian Literature	3 cr
ANTH/HIST 2258	Native American History	3 cr
ENGL 3353	The West in American Literature	3 cr
HIST 4435	Colonial Frontiers in America and Africa	3 cr

*(only those offerings focusing on western peoples)

American Cultures Track 5**Gender in America (24 cr)**
(includes a Minor in Women Studies)**Required Disciplinary Methods Course:**

WS 2201	Introduction to Women Studies	3 cr
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Required Course

WS 4401	Feminist Thought	3 cr
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Plus at least two of the following:

HIST 4425	Women in the North American West	3 cr
SOC 3321	Families in American Society	3 cr
WS 3311	American Women's Movements	3 cr

Plus two courses, totalling at least 6 credits, from the following:

ANTH 2215	Anthropology of Gender	3 cr
COMM 4440	Gender and Communication	3 cr
HE 4445	Human Sexuality and Health Education	2 cr
HIST 4437	Families in Former Times	3 cr
HIST 4439	Women in History	3 cr
SOC 2250	Women, Crime and Corrections	3 cr
WS 4459	Internship	1-6 cr
WS 4461	Independent Study	1-3 cr

OR
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 3328	Gender in Literature	3 cr
HIST 3307	Early North America	3 cr
HIST 3308	Industrialization and Reform in the United States	3 cr
HIST 3309	Modern United States	3 cr
HIST 4427	North American West	3 cr
PSYC 2250	Female and Male Roles	3 cr
SOC 2248	Social Diversity	3 cr

American Cultures Track 6**American Folk Cultures (24 cr)**
(includes a Minor in Folklore)**Required Disciplinary Methods Course:**

ANTH/ENGL 2212	Introduction to Folklore/ Oral Tradition	3 cr
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Choose 15 credits from:

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

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.

America in the World Track 1**America and World Affairs (24 cr)**
(includes a Minor in Political Science)**Required Disciplinary Methods Course:**

POLS 2202	Introduction to Politics	3 cr
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Required Courses:

POLS 2221	Introduction to International Relations	3 cr
POLS 3326	Recent American Foreign Policy	3 cr
POLS 3331	Comparative Politics: Framework for Analysis	3 cr

Plus two of the following:

POLS 4425	Topics in International Politics	3 cr
POLS 4433	Politics of Developing Nations	3 cr
POLS 4434	Terrorism and Political Violence	3 cr
POLS 4492	Seminar (when offered with title: Human Rights)	1-3 cr

Contextual Electives

Choose three of from the following, with no two in the same discipline:

ANTH 2239	Latino Peoples and Cultures	3 cr
ANTH 4423	Anthropology of International Health	3 cr
ECON 3334	International Economics	3 cr
ECON 4472	Comparative Economic Systems	3 cr
HIST 4435	Colonial Frontiers in America and Africa	3 cr
HIST 4460	The Global Hispanic Monarchy	3 cr
HIST 4474	Islam and Nationalism in the Modern World	3 cr
HIST 4429	Foreign Relations Since 19003	3 cr
HIST 4430	Global Environmental History	3 cr

America in the World Track 2**America in World History (24 cr)**
(includes a Minor in History)**Required Disciplinary Methods Course:**

HIST 2291	The Historian's Craft	3 cr
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Three of the following:

At least one must be HIST 101 or 102.

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

Plus two of the following:

HIST 3307	Early North America	3 cr
HIST 3308	Industrialization and Reform in the United States	3 cr
HIST 3309	Modern United States	3 cr
HIST 4429	Foreign Relations Since 19003	3 cr
HIST 4430	Global Environmental History	3 cr
HIST 4435	Colonial Frontiers in America and Africa	3 cr
HIST 4460	The Global Hispanic Monarchy	3 cr
HIST 4474	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 4423	Anthropology of International Health	3 cr
ART 4424	Twentieth Century Art	3 cr
ECON 3334	International Economics	3 cr
ECON 4472	Comparative Economic Systems	3 cr
POLS 3326	Recent American Foreign Policy	3 cr
POLS 3331	Comparative Politics: Framework for Analysis	3 cr
POLS 4406	Intergovernmental Relations	3 cr
POLS 4425	Topics in International Politics	3 cr
POLS 4433	Politics of Developing Nations	3 cr
POLS 4434	Terrorism and Political Violence	3 cr
POLS 4492	Seminar (when offered with title: Human Rights)	1-3 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 2250	Introduction to Sociocultural Anthropology	3 cr
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Required Courses:

ANTH 2239	Latino Peoples and Cultures	3 cr
HIST 2251	Latin America	3 cr
SPAN 2201,2202	Intermediate Spanish I and II	8 cr
OR		
SPAN 3301,3302	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 4424	Ethnomedicine of Latin America	3 cr
ANTH 4487	Ethnographic Field School, when offered in Mexico, Guatemala, and other Latin American countries	1-6 cr
ANTH 4489	Special Topics in American Indian Studies, when offered with title: Latin American Indigenous Resource Management	3 cr
HIST 4450	Golden Age Castile	3 cr
HIST 4460	The Global Hispanic Monarchy	3 cr
SPAN 3342	Survey of Latin American Literature and Civilization	3 cr
SPAN 4462	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 4453	American Indian Literature	3 cr
ANTH/POLS 4478	Federal Indian Law	3 cr
ANTH/POLS 4479	Tribal Governments	3 cr
ENGL 3353	The West in American Literature	3 cr
ENGL 3356	Ethnicity in Literature	3 cr
ENGL 3367	Language in the United States	3 cr
ENGL 4480	Varieties of American English	3 cr
HIST 3307	Early North America	3 cr
HIST 3308	Industrialization and Reform in the United States	3 cr
HIST 3309	Modern United States	3 cr
HIST 4421	Federal Indian Relations	3 cr
HIST 4425	Women in the North American West	3 cr
HIST 4427	North American West	3 cr
POLS 3326	Recent American Foreign Policy	3 cr
POLS 4401	Political Parties and Interest Groups	3 cr
POLS 4403	The Presidency	3 cr
POLS 4404	The Legislative Process	3 cr
POLS 4411	American Political Theory	3 cr
POLS 4442	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 4414	New World Archaeology	3 cr
ANTH 4452	American Indian Verbal Arts	3 cr
ANTH 4454	Survey of American Indian Languages	3 cr
ANTH 4466	Current Issues in Indian Country	3 cr
ANTH 4472	Native American Arts	3 cr
ANTH 4474	Special Topics in Indian Education	3 cr
ANTH 4489	Special Topics in American Indian Studies	3 cr

2. Two Courses from English and Fine Arts:

ANTH/ENGL 4453	American Indian Literature	3 cr
ART/MC 2210	History and Appreciation of Photography	3 cr
ART 4424	Twentieth Century Art	3 cr
COMM 4442	American Rhetoric and Public Address	3 cr
ENGL 3353	The West in American Literature	3 cr
ENGL 3356	Ethnicity in Literature	3 cr
ENGL 3367	Language in the United States	3 cr
ENGL 4480	Varieties of American English	3 cr
Upper-division ENGL Period or Genre Literature courses chosen from semester offerings with American emphasis (subject to review of American Studies director)		
MC 2290	American Broadcasting	3 cr
MUSC 1106	American Music	3 cr
THEA 4420	American Theatre History	3 cr

3. Two courses from History:

HIST 3307	Early North America	3 cr
HIST 3308	Industrialization and Reform in the United States	3 cr
HIST 3309	Modern United States	3 cr
HIST 3337	Archaeology and History of Southern Idaho	3 cr
HIST 4421	Federal Indian Relations	3 cr
HIST 4423	Idaho History	3 cr
HIST 4425	Women in the North American West	3 cr
HIST 4427	North American West	3 cr
HIST 4435	Colonial Frontiers in America and Africa	3 cr
HIST 4471	Historical Geography of Idaho	3 cr

4. Two courses from Political Science

ANTH/POLS 4478	Federal Indian Law	3 cr
ANTH/POLS 4479	Tribal Governments	3 cr
POLS 3308	State and Local Government	3 cr
POLS 3326	Recent American	3 cr

POLS 4401	Foreign Policy Political Parties and Interest Groups	3 cr
POLS 4403	The Presidency	3 cr
POLS 4404	The Legislative Process	3 cr
POLS 4411	American Political Theory	3 cr
POLS 4442	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 2200	Introduction to American Studies	3 cr
ENGL 2277 or 2278	Survey of American Literature I or II	3 cr
HIST 1118	U.S. History and Culture	3 cr
POLS 1101	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 1100 Introduction to American Language and Cultures 3 credits. Introduction to the forms, uses, and conventions of American English, with emphasis upon their cultural origins and functional varieties. Intended primarily for speakers of standard English as second language or second dialect. F, S

AMST 2200 Introduction to American Studies 3 credits. This course will introduce essential themes in American studies, will outline a basic canon of interdisciplinary knowledge, and will discuss methods with which aspects of American cultural life may be analyzed. Fulfills Goal 9 of the General Education Requirements. R1

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

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

AMST 4410 Internship 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

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 humankind the world over from the distant past to the present. Anthropology consists of subfields that specialize in the human past, human biology and evolution, language, society, and culture, and provides cross-cultural, environmental, international, and global perspectives on past and present human behavior. At Idaho State University, an important part of the anthropology mission is to apply anthropological concepts to the resolution of important social, cultural, and environmental problems of our times. The Department of Anthropology offers courses leading to the Bachelor of Arts degree and the Master of Arts or Master of Science degrees in Anthropology. For a full description of the M.A. and M.S. degrees, refer to the Graduate Catalog. The Anthropology major provides training in all four subdisciplines in the field, including archaeology, biological anthropology, anthropological linguistics, and sociocultural anthropology. The department also offers minors in Anthropology, American Indian Studies, Latino Studies, and Linguistics, and opportunities for specialization in archaeological science; ecological, medical, and applied anthropology; language preservation; biocomplexity; informatics; and oral history.

Undergraduate Learning Objectives And Outcomes

Program Objectives – Students who have completed an undergraduate major in Anthropology at Idaho State University should be able to:

1. Understand basic methods, concepts, alternative theories and approaches, and modes of explanation appropriate to each of the subfields of the discipline.

2. Read and understand anthropological theory at the level of Bachelor of Arts.
3. Understand the use of quantitative and qualitative analysis in anthropological research.
4. Understand a comparative approach to the human condition, both cross-culturally and chronologically.
5. Demonstrate technical writing skills at the level of Bachelor of Arts.

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

1. Apply knowledge of anthropological methods, 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:

ANTH 1107	The Nature of Language	3 cr
ANTH 2203	Introduction to Archaeology	3 cr
ANTH 2205	Introduction to Archaeology Laboratory	1 cr
ANTH 2230	Introduction to Biological Anthropology	3 cr
ANTH 2232	Introduction to Biological Anthropology Laboratory	1 cr
ANTH 2250	Introduction to Sociocultural Anthropology	3 cr
ANTH 2237	Peoples and Cultures of the Old World	3 cr
	OR	
ANTH 2238	Peoples and Cultures of the New World	3 cr
	OR	
ANTH 2239	Latino Peoples and Cultures	3 cr
	TOTAL:	17 cr

Required Upper Division Courses:

ANTH 4401	History and Theory of Sociocultural Anthropology	3 cr
ANTH 4403	Method and Theory in Archaeology	3 cr
ANTH 4430	Human Origins and Diversity	3 cr
ANTH 4450	Introduction to Socio-linguistic Anthropology	3 cr
	OR	
ANTH 4455	Linguistic Analysis I	3 cr
	OR	
ANTH 4458	Historical Linguistics	3 cr
ANTH 4492	Senior Seminar	3 cr
ANTH 4495	Department Colloquium	1 cr
	TOTAL:	16 cr
IN ADDITION:	Upper Division Anthropology Elective Courses	9 cr
ENGL 3307	Professional and Technical Writing	3 cr
MATH 3253	Introduction to Statistics	3 cr
	TOTAL:	15 cr

Minor in American Indian Studies

Required Courses

ANTH/HIST 2258	Native American History	3 cr
ANTH 1100	General Anthropology	3 cr
ANTH 2238	People and Cultures of the New World	3 cr
ANTH 4421	Federal Indian Relations	3 cr
ANTH 4466	Current Issues in Indian Country	3 cr
ANTH 4476	Seminar in American Indian Studies	3 cr
	TOTAL:	12 cr

Plus ONE of the following courses:

ANTH/HIST 2258	Native American History	3 cr
ANTH 4452	American Indian Verbal Arts	3 cr
ANTH 4454	Survey of American Indian Languages	3 cr
Approved American Indian Language course		3 cr
IN ADDITION:	Approved American Indian Studies courses	6 cr
	TOTAL:	21 cr

Minor in Anthropology

Required Courses

ANTH 1107	The Nature of Language	3 cr
ANTH 2203	Introduction to Archaeology	3 cr
ANTH 2205	Introduction to Archaeology Laboratory	1 cr
ANTH 2230	Introduction to Biological Anthropology	3 cr
ANTH 2232	Introduction to Biological Anthropology Laboratory	1 cr
ANTH 2250	Introduction to Sociocultural Anthropology	3 cr
IN ADDITION:	Upper Division Anthropology Courses	9 cr
	TOTAL:	23 cr

Minor in Latino Studies

Required Courses

ANTH 2250	Introduction to Sociocultural Anthropology	3 cr
ANTH 2239	Contemporary Latinos in the U.S.	3 cr
	OR	

ANTH 2239	Peoples of Mexico Through Film OR	3 cr
ANTH 2239	Culture South of the Border	3 cr
HIST 2251	Latin America	3 cr
One year intermediate Spanish:		
SPAN 2201-2202	Intermediate Spanish OR	8 cr
SPAN 3301-3302	Spanish Conversation and Composition OR	6 cr
Other with permission of Latino Studies Director		

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

(3 credits must be 4000 level or above):

ANTH 1108	Spanish for Health Care Providers	1 cr
ANTH 2239	Contemporary Latinos in the U.S.	3 cr
ANTH 2239	Peoples of Mexico Through Film	3 cr
ANTH 2239	Culture South of the Border	3 cr
ANTH 2239	Ancient Meso America	3 cr
ANTH 2239	Other approved classes	
ANTH 4424	Ethnomedicine of Latin America	3 cr
ANTH 4487	Ethnographic Fieldschool*	3-6 cr
ANTH 4489	Latin American Indigenous Resource management	3 cr
HIST 4450	Golden Age Castile	3 cr
HIST 4460	The Global Hispanic Monarchy	3 cr
SPAN 3342	Survey of Latin American Literature and Civilization	3 cr
SPAN 4462	Early Twentieth Century Spanish American Literature	3 cr

*When offered in Mexico, Guatemala and other Latin American countries

Minor in Linguistics

Required Courses

ANTH/LANG/ENGL 1107	Nature of Language	3 cr
ENGL 2281	Introduction to Language Studies	3 cr
ANTH/LANG 4455	Introduction to Phonetics OR	3 cr
ENGL 4485	Linguistic Analysis OR	
PHIL 4410	Philosophy of Language	3 cr
One year of a foreign language*		

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

ANTH/ENGL 3367	Language in the United States	3 cr
ANTH 4450	Introduction to Socio-linguistics	3 cr
ANTH 4452	Survey of American Indian Languages	3 cr
ANTH/LANG 4455	Introduction to Phonetics	3 cr
ANTH/LANG 4456	Introduction to Phonology and Morphology	3 cr
ANTH 4458	Historical Linguistics	3 cr
ANTH 4459	Linguistic Field Methods	3 cr
ANTH/LANG 4457	Survey of Indo-European Languages	3 cr
ANTH/ENGL/LANG 4484	Topics in Linguistics	3 cr
ENGL 2280	Grammar and Usage	3 cr
ENGL 4481	Advanced Grammar	3 cr
ENGL 4483	Varieties of American English	3 cr
ENGL 4485	Linguistic Analysis	3 cr

ENGL 4486	Old English	3 cr
ENGL 4487	History of the English Language	3 cr
LANG 4488	Comparative Philology	3 cr
PHIL 2201	Introduction to Logic	3 cr
PHIL 4410	Philosophy of Language	3 cr
* in addition to the 8 credit hours of foreign language required under General Education Goal 10B.		

Anthropology Courses

Only Juniors and Seniors may register for 4000-level courses without permission of the instructor.

ANTH 1100 General Anthropology 3 credits. Introduction to fields of anthropology: physical anthropology, archaeology, linguistics, and ethnology, and to biological and cultural development of humans. Satisfies Goal 12 of the General Education Requirements. F, S, Su

ANTH 1101 Elementary Shoshoni I 4 credits. Basic communication skills and grammar of Shoshoni and introduction to Shoshoni culture. Cross-listed as SHOS 1101. With ANTH/SHOS 1102, satisfies Goal 10B of the General Education Requirements. F

ANTH 1102 Elementary Shoshoni II 4 credits. Furthering basic communication skills and grammar of Shoshoni and introduction to Shoshoni culture. Cross-listed as SHOS 1102. With ANTH/SHOS 1101, satisfies Goal 10B of the General Education Requirements. S

ANTH 1107 Nature of Language 3 credits. General survey of structure and use of language. Topics include language origins, descriptive and historical linguistics, language and culture, and history of the English language. Cross-listed as ENGL 1107 and LANG 1107. S

ANTH 2201 Intermediate Shoshoni I 4 credits. Intermediate communication skills and grammar of Shoshoni. Deepens understanding of Shoshoni culture and builds on skills and knowledge gained in Elementary Shoshoni. Cross-listed as SHOS 2201. With ANTH/SHOS 2202, satisfies Goal 10B of the General Education Requirements. F

ANTH 2202 Intermediate Shoshoni II 4 credits. Intermediate communication skills and grammar of Shoshoni. Deepens understanding of Shoshoni culture and builds on skills and knowledge gained in Elementary Shoshoni. Cross-listed as SHOS 2202. With ANTH/SHOS 2201, satisfies Goal 10B of the General Education Requirements. S

ANTH 2203 Introduction to Archaeology 3 credits. Introduction to basic methods, data and concepts of archaeology. S

ANTH 2205 Introduction to Archaeology Laboratory 1 credit. Exercises and experiments introducing the methods and techniques of archaeology. COREQ: ANTH 2203. S

ANTH 2206 Indigenous Traditional Parenting 3 credits. Using the traditional knowledge of a Shoshoni language speaker, course is based in language and philosophy. Includes concepts of personhood, relations between parent and

child, and the philosophy and use of childcare artifacts such as cradleboards. F

ANTH 2210 Conversational Shoshoni 3 credits. Refresher in Shoshoni words and phrases for those with previous exposure to the language and culture. S

ANTH 2212 Introduction to Folklore/Oral Tradition 3 credits. Folklore genres and folk groups, including introductory experience in folklore fieldwork focused on study of a genre or group of genres within verbal, customary, or material culture. Cross-listed as ENGL 2212. R1

ANTH 2215 Anthropology of Gender 3 credits. Human behavior, social and biological differences in the context of various cultures and stratification systems. D

ANTH 2230 Introduction to Biological Anthropology 3 credits. Introduction to human biology, including human origins, evolution, human adaptation, and diversity. F

ANTH 2232 Introduction to Biological Anthropology Laboratory 1 credit. Introduction to methodologies and techniques in biological anthropology. COREQ: ANTH 2230. F

ANTH 2237 Peoples and Cultures of the Old World 3 credits. Examination of human social and cultural diversity from different parts of the Old World. Topics include social structure, ecology, religion, politics, and language. May be repeated for up to 6 credits. Satisfies Goal 10A of the General Education Requirements. D

ANTH 2238 Peoples and Cultures of the New World 3 credits. Examination of the human social and cultural diversity from different parts of the New World. Topics include social structure, ecology, religion, politics, and language. May be repeated for up to 6 credits. Satisfies Goal 10A of the General Education Requirements. F, S

ANTH 2239 Latino Peoples and Cultures 3 credits. Examination of the human, social and cultural diversity among Latino people in different regions of the world. Topics include ethnicity, health and healing, social structure, ecology, religion, politics, prehistory and language. May be repeated for up to 6 credits. Satisfies Goal 10A of the General Education Requirements. F, S

ANTH 2250 Introduction to Sociocultural Anthropology 3 credits. Explores cultural and biocultural behavior including cross cultural examination of enculturation, culture and personality, social organization, kinship and marriage, economics, politics, and ideology. Focus on cultural dynamics and contemporary issues in cultural anthropology. F

ANTH 2258 Native American History 3 credits. Assesses diversity of North American natives, their life and thought; European impact; federal policy; and natives' response to continual cultural and physical assault. Cross-listed as HIST 2258. D

ANTH 3301 Introduction to Shoshoni Folklore 3 credits. Survey of Shoshoni beliefs, customs, music, dance and various genres of oral tradition including tales, legends and myths.

Includes the material manifestations of Shoshoni culture, including arts and crafts, costuming and folk technology. R1

ANTH 3367 Language in the United States 3 credits. A survey of the languages of the United States (American Indian languages, immigrant languages, and ethnic and regional varieties of English) along with the social and political aspects of American language use. Cross-listed as ENGL 3367. PREREQ: ANTH/LANG/ENGL 1107. D

ANTH 4401 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 2250 or permission of instructor. S

ANTH 4402 Ecological Anthropology 3 credits. Interaction of human biocultural systems and environment. Relations of natural resources, technological inventories, social organization, cultural categories. Native resource management practices. PREREQ: ANTH 2203, ANTH 2250, ANTH 2230, BIOL 1100 or permission of instructor. D

ANTH 4403 Method and Theory in Archaeology 3 credits. History of the development of current methods and theory in archaeology and contemporary applications. PREREQ: ANTH 2203 or permission of instructor. F

ANTH 4404 Material Culture Analysis 3 credits. Methods and analyses used in archaeology and anthropology to understand the relationship between objects and culture. PREREQ: ANTH 2203 or permission of instructor. COREQ: ANTH 4405. D

ANTH 4405 Analytical Techniques Laboratory 1 credit. Analytical techniques laboratory to accompany ANTH 4404. Students will complete an assigned project in material culture analysis. PREREQ: ANTH 2203 or permission of instructor. COREQ: ANTH 4404. D

ANTH 4406 American Indian Health Issues 3 credits. An overview of health concerns, both current and past, of American Indian people, and the biological and sociocultural factors which influence health status. PREREQ: Permission of instructor. AF

ANTH 4407 Anthropology of Global Health 3 credits. How cultures define health and illness, and how these definitions ultimately influence the health status of individuals. PREREQ: Prior Anthropology course or permission of instructor. F

ANTH 4408 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 4409 Clinical Medical Anthropology 3 credits. Explores the culture of biomedicine and the beliefs of patients. Topics include doctor/patient communication, cultural competency, cultural construction of risk, critiques of high-tech medicine and the international pharmaceutical industry. S

ANTH 4410 Introduction to Cultural Resources Management 3 credits. Introduction

to CRM reviewing historic preservation and federal legislation as they pertain to archaeology; practical experience in site survey and recording. PREREQ: ANTH 2203 or permission of instructor. D, W

ANTH 4413 Old World Archaeology 3 credits. Prehistory of the Old World. Precise areal focus and periods may vary. Includes both theory and exposition. PREREQ: ANTH 2203 or permission of instructor. D

ANTH 4414 New World Archaeology 3 credits. Examination of the prehistory of the Americas with emphasis on the North American Continent. PREREQ: ANTH 2203 or permission of instructor. D

ANTH 4423 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 4424 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 4430 Human Origins and Diversity 3 credits. Examines human origins, adaptations and biological diversity within the context of evolutionary processes. PREREQ: ANTH 2230 or permission of instructor. S

ANTH 4432 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 2230 and ANTH 2232 or permission of instructor. D

ANTH 4433 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 2230 and ANTH 2232; or BIOL 1101 and BIOL 1102; or permission of instructor. AF

ANTH 4435 Survey of Fossil Primates 3 credits. Evolution and adaptations of primates from the earliest primates to the enigmatic giants of the Pleistocene. PREREQ: ANTH 2230, ANTH 2232; or BIOL 1101, and BIOL 1102; or permission of instructor. AF

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

ANTH 4449 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 2250 or permission of instructor. AF

ANTH 4450 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 4488. PREREQ: ANTH/ENGL/LANG 1107, ENGL 2280 or ENGL 2281, or permission of instructor. F

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

ANTH 4453 American Indian Literature 3 credits. Considers literary works by and about North American native people, especially in relationship to history, genre, and culture, including oral traditions. Cross-listed as ENGL 4453. PREREQ: Goal 1. R2

ANTH 4454 Survey of American Indian Languages 3 credits. History of scholarship, analysis and classification of American Indian languages with emphasis on the languages of a particular phylum or geographical area. PREREQ: ANTH/ENGL/LANG 1107 or permission of instructor. AF

ANTH 4455 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 4455. PREREQ: ANTH/ENGL/LANG 1107. D

ANTH 4456 Introduction to Phonology and Morphology 3 credits. Phonological theory and analysis; current theories in morphology. Phonological rules, representations, underlying forms, derivations, justifications of phonological analyses; morphological structure, derivational and inflectional morphology; relation of morphology to phonology. Cross-listed as LANG 4456. PREREQ: ANTH/ENGL/LANG 1107. D

ANTH 4457 Survey of Indo-European Languages 3 credits. Survey of Indo-European languages from ancient to modern times, their relationships to one another, and chief characteristics. Cross-listed as LANG 4457. PREREQ: completion of Goal 10B. D

ANTH 4458 Historical Linguistics 3 credits. The methods and theories of the historical study of language. The comparative method, internal reconstruction, linguistic change over time, genetic typology of languages, and applications to prehistory. PREREQ: ANTH/ENGL/LANG 1107. AS

ANTH 4459 Linguistic Field Methods 3 credits. Practical experience in linguistic analysis of a language using data elicited from a native speaker. May be repeated for up to 6 credits. PREREQ: ANTH 4456 or permission of instructor. D

ANTH 4463 Applied Statistics in Anthropology 3 credits. Practical applications of commonly used statistical analyses in anthropology. PREREQ: MATH 1153 or permission of instructor. AF

ANTH 4464 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 4463. AS

ANTH 4466 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 4472 Native American Arts 3 credits. Survey of Native American arts and industries, including prehistoric, ethnographic, and contemporary venues. PREREQ: ANTH 2238 and permission of instructor. D

ANTH 4474 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 4476 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 4478 Federal Indian Law 3 credits. Examination of tribal governments; their relationship with the federal government; sovereignty, jurisdictional conflicts over land and resources; and economic development. Cross-listed as POLS 4478. D

ANTH 4479 Tribal Governments 3 credits. Complex legal position of Indian tribes as self-governing entities; principles of inherent powers; governmental organization, lawmaking, justice, relation to state and federal government. Cross-listed as POLS 4479. D

ANTH 4480 Varieties of American English 3 credits. In-depth study of various dialects of American English, including historical evolution of different dialects, effects of migration on dialects, and influences of non-English immigrant languages on development of American English. Field-work studying the Snake River dialects of Idaho. Cross-listed as ENGL 4480. PREREQ: ANTH/LANG/ENGL 1107. D

ANTH 4481 Specializations in Anthropology 3 credits. Rotating specialized topics such as applied anthropology, proxemics, ethnology, religion, international development. See class schedule for titles. May be repeated for up to 6 credits. PREREQ: Upper Division status or permission of instructor. D

ANTH 4482 Independent Problems in Anthropology 1-3 credits. Investigation of an anthropological problem chosen by the student and approved by the staff. May be repeated for up to 6 credits. PREREQ: Permission of instructor. D

ANTH 4483 Field Research 3 credits. Practical experience in field research. May be repeated for up to 6 credits. PREREQ: Permission of instructor. D

ANTH 4484 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 4484 and

LANG 4484. PREREQ: ANTH/ENGL/LANG 1107 or ENGL 2280 or ENGL 2281. D

ANTH 4485 Anthropology of War and Violence 3 credits. Survey of war and violence from its evolutionary foundations through its modern representations. History and ethnography of violent conflict around the world. PREREQ: Any upper division social science course. AS

ANTH 4486 Archaeology Field School 1-6 credits. Practical field and laboratory training in archaeological excavation techniques and methods of analysis. May be repeated for up to 6 credits. PREREQ: ANTH 2203 or permission of instructor. Su

ANTH 4487 Ethnographic Field School 1-6 credits. Supervised fieldwork in cultural anthropology in a given ethnographic setting where students and faculty work on a specific set of field problems. May be repeated for up to 6 credits. PREREQ: ANTH 2250 and ANTH 4449 or permission of instructor. D

ANTH 4489 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 4490 Topics in Folklore 3 credits. Focused study of an issue in folkloristics or a particular genre of folklore, including history of the scholarship concerning that issue or genre. Rotating topics. May be repeated for up to 9 credits with different topics. Cross-listed as ENGL 4490. R1

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

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

ANTH 4493 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 4494 Visual Anthropology 3 credits. Documentary and ethnographic filmmaking techniques including story structure, interviewing, audio and lighting, camera handling, composition, POV, and editing. Anthropological critiques of visual representation. Students create their own short film for a final project. May be repeated for up to 6 credits. PREREQ: ANTH 1100 or ANTH 2250 or permission of instructor. F

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

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

Department of Art and Pre-Architecture

Chair and Professor: Kovacs
Professors: Evans, Martin, Warnock
Assistant Professor: Leeuwrik, 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 1100, 1103, 1104, 1105, and 1106). Students who do not have a 3.0 grade point average in these foundation courses may, with the approval of their advisor, appeal for admission as an art major by submitting a portfolio for faculty review. The student should consult his/her advisor for declaration of major forms.

The Department of Art 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 3385) must be taken in the same medium when being repeated to raise grade.

Prerequisites

Students who major in art must complete the foundation courses (1100, 1103, 1104, 1105, 1106) in sequence before enrolling in any 2000 level or above studio courses. Creative Process 1103 must be taken before enrolling in Creative Process 1104. Drawing 1105 must be taken before enrolling in 1106. The student should take these five courses during the freshman year. After completion and upon achieving a 3.0 in these foundation classes, the student may formally declare as an Art major. For Art majors, ART 1100 will be required prior to enrollment in 1101 and 1102. Non-majors may take studio courses/art history without the foundation prerequisites. Note that ART 3310 Professional Practice and Display requires at least 60 completed credits and is for declared art majors.

Senior Presentation

During the last semester of the senior year the student must enroll in Senior Presentation, ART 4494. As a requirement for graduation as an art major, the student must present an exhibit of work, participate in an oral review with faculty members, and write a statement that addresses his/her development and growth as an artist/scholar. Elementary and secondary art education majors should refer to the Teacher Education Section of this catalog. **Please note that ART 3334, Secondary Art Methods, will be offered only during the fall semester every third year.** Summer school graduates must exhibit during the spring semester preceding graduation. **At least 36 of the credits earned toward graduation must be in upper division courses (3000 or 4000 numbers) and sixteen of these must be in Art.**

Bachelor of Arts in Art

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

Required Courses

ART 1100	Survey of Art	3 cr
ART 1101	History of Western Art I	3 cr
ART 1102	History of Western Art II	3 cr
ART 1103	Creative Process	3 cr
ART 1104	Creative Process	3 cr
ART 1105	Drawing I	3 cr
ART 1106	Drawing II	3 cr
ART 4494	Senior Presentation	1 cr
IN ADDITION:	Art electives	27 cr
		TOTAL: 49 cr

Bachelor of Fine Arts in Art

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

Required Courses:

ART 1100	Survey of Art	3 cr
ART 1101	History of Western Art I	3 cr
ART 1102	History of Western Art II	3 cr
ART 1103	Creative Process	3 cr
ART 1104	Creative Process	3 cr
ART 1105	Drawing I	3 cr
ART 1106	Drawing II	3 cr
ART 2201	Intermediate Drawing	3 cr
ART 2231	Introduction to Printmaking	3 cr
ART 2241	Introduction to Painting and Composition	3 cr
ART 2251	Introduction to Metals/Jewelry	3 cr
ART 2261	Introduction to Weaving	3 cr
ART 2271	Introduction to Ceramics	3 cr
ART 2281	Introduction to Sculpture	3 cr
ART 3301	Anatomy Drawing and Painting	3 cr
ART 3310	Professional Practice and Display	3 cr
ART 4494	Senior Presentation	1 cr
IN ADDITION:	Upper-division electives:	
	Studio electives	18 cr
	Art history electives	6 cr
		TOTAL: 73 cr

Minor in Art History

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

Required Courses:

ART 1100	Survey of Art	3 cr
ART 1101	History of Western Art I	3 cr
ART 1102	History of Western Art II	3 cr
ART 3385	Individual Projects (Art History)	3 cr
ART 4422	World Arts	3 cr

Plus 2 of the following:

ART 4423	Nineteenth Century Art	3 cr
ART 4424	Twentieth Century Art	3 cr
ART 4425	Contemporary Art Forms	3 cr
ART 4426	Seminar in Art History	3 cr
		TOTAL: 21 cr

Minor in Studio

Required Courses:

ART 1100	Survey of Art	3 cr
ART 1101	History of Western Art I	3 cr
		OR

ART 1102	History of Western Art II	3 cr
ART 1103	Creative Process	3 cr
ART 1105	Drawing I	3 cr

Plus 3 of the following:

ART 2231	Introduction to Printmaking	3 cr
ART 2241	Introduction to Painting and Composition	3 cr
ART 2251	Introduction to Metals/Jewelry	3 cr
ART 2261	Introduction to Weaving	3 cr
ART 2271	Introduction to Ceramics	3 cr
ART 2281	Introduction to Sculpture	3 cr
		TOTAL: 21 cr

Associate of Arts in Art

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

All of the General Education Goals (10A and 10B)		
		37-53* cr
ART 1100	Survey of Art	3 cr
ART 1101	History of Western Art I	3 cr
ART 1102	History of Western Art II	3 cr
ART 1103	Creative Process	3 cr
ART 1104	Creative Process	3 cr
ART 1105	Drawing I	3 cr
ART 1106	Drawing II	3 cr

Choose a minimum of one of the following Art electives and additional classes to total 64 credits:

ART 2231	Printmaking	3 cr
ART 2241	Painting	3 cr
ART 2251	Metals/Jewelry	3 cr
ART 2261	Weaving	3 cr
ART 2271	Ceramics	3 cr
ART 2281	Sculpture	3 cr
		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.

Art Courses

ART 1100 Survey of Art 3 credits. A study of the elements of visual art, various media and techniques of artistic expression, with a brief historical overview. When appropriate, gallery tours and presentations by visiting artists will be included. Satisfies Goal 6 of the General Education Requirements. F, S, Su

ART 1101 History of Western Art I 3 credits. Study of the visual arts from prehistoric to Gothic times and the cultural influences on art forms. Satisfies Goal 6 of the General Education Requirements. F

ART 1102 History of Western Art II 3 credits. Study of the visual arts from the Renaissance to the modern era with comparisons of major movements. Satisfies Goal 6 of the General Education Requirements. S

ART 1103 Creative Process 3 credits. A foundation course that deals with the "vocabulary" of design and the basic elements of art through a series of exercises in both black and white and color and in two and three dimensions. F, S

ART 1104 Creative Process 3 credits. Use of design vocabulary in the solution of specific 2 and 3 dimensional visual problems. Emphasis

shifts to the thought process—the formulation of ideas and solutions and the implementation of concept and craft. PREREQ: ART 1103. F, S

ART 1105 Drawing I 3 credits. Introduction to the fundamental skills of drawing, including composition, proportion, light, gesture, and black and white media. Students will begin to explore technical and conceptual approaches to drawing. May cover still life, landscape, figure drawing. Investigate artists and stylistic periods. F, S

ART 1106 Drawing II 3 credits. Continuation of ART 1105; refine skills and further explore technical and conceptual approaches to drawing. Introduction to color. Continue investigating historical and contemporary artists. PREREQ: ART 1105. F, S

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

ART 2202 Intermediate Drawing 3 credits. Further exploration in drawing technique and theme. Also includes thorough experience with varieties of drawing media and papers, both traditional and contemporary. PREREQ: ART 2201. S

ART 2210 History and Appreciation of Photography 3 credits. Discovery of the photographic process and its evolution to present. Analysis of many recognized masters of photography. Cross-listed as MC 2210. Satisfies Goal 6 of the General Education Requirements. F, S

ART 2231 Introduction to Printmaking 3 credits. Introduction to one of several major print media—etching, lithography, relief, collograph, monotype. Emphasis is on the learning of various technical processes and their incorporation in the development of the student's imagery. F, S

ART 2241 Introduction to Painting and Composition 3 credits. Introduction to methods, materials, and basic concepts of painting. F, S

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

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

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

ART 2271 Introduction to Ceramics 3 credits. Techniques of forming ceramic art by coiling, slab construction, and throwing on the potter's wheel, with emphasis on form, glazing, and decorative techniques. F, S, Su

ART 2281 Introduction to Sculpture 3 credits. Introduction to various methods and materials of sculpture construction, including additive, subtractive, manipulative, and substitution techniques. F, S

ART 3301 Anatomy Drawing and Painting 3 credits. Course designed for intense explorations of human form using both drawing and painting media. Some studies in the historical position of the figure in art of the present and the past. PREREQ: ART 1105 and ART 1106 or permission of instructor. F

ART 3302 Advanced Anatomy Painting and Sculpture 3 credits. Further work with human form using two and three dimensional format. PREREQ: ART 3301 or permission of instructor. F

ART 3310 Professional Practice and Display 3 credits. Course will prepare the student to present work professionally, and to explore employment possibilities, grant writing, gallery maintenance, business practices, and survival skills. PREREQ: 60 credits and declared Art major. F

ART 3331 Intermediate Printmaking 3 credits. Individual work within the media of one's experience or introduction to a new print medium. Students will be exposed to new techniques and processes including those used in color printing. PREREQ: ART 2231. F, S

ART 3332 Intermediate Printmaking 3 credits. Individual work within the media of one's experience or introduction to a new print medium. Students will be exposed to new techniques and processes including those used in color printing. PREREQ: ART 3331. F, S

ART 3334 Secondary School Art Methods 3 credits. Practical techniques and philosophical approaches to teaching art in the middle and high schools. PREREQ: 12 hours of studio classes. S

ART 3341 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 2241. F, S

ART 3342 Intermediate Painting and Composition II 3 credits. Complete independent projects. Equal emphasis placed on conceptual and technical development. High level of work ethic and craftsmanship expected. Actively research historical and contemporary artists. PREREQ: ART 3341. F, S

ART 3343 Intermediate Watercolor 3 credits. Further experiments in opaque and transparent media, variety of supports and styles. One field trip required. PREREQ: ART 2243. D

ART 3351 Intermediate Metals 3 credits. Experimental work. Individual projects may include stone settings, enameling, angle raising, procedure for hinges, anodizing, repoussé and riveting. PREREQ: ART 2251. F, S

ART 3352 Intermediate Metals 3 credits. Experimental work. Individual projects may include stone settings, enameling, angle raising, procedure for hinges, anodizing, repoussé and riveting. PREREQ: ART 3351. F, S

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

ART 3362 Intermediate Weaving 3 credits each. Experimental work on and off loom, fiber structures and dyeing. PREREQ: ART 3361. F, S

ART 3371 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 2271. F, S, Su

ART 3372 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 3371. F, S, Su

ART 3381 Intermediate Sculpture 3 credits. Further explorations in imagery and development of skills in sculptural media. PREREQ: ART 2281. F, S

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

ART 3385 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 3391 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 4401 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 2202. F, S

ART 4418 Art of the Book 3 credits. Expands the traditional idea of book form with innovative structures and concepts. Textual and nontextual formats and methods for generating ideas for works are addressed. Traditional techniques for bookbinding will also be included. Cross-listed as MC 4418. S

ART 4422 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 4423 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 4424 Twentieth Century Art 3 credits. History of the visual arts from Expressionism to the present. S

ART 4425 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 4423 or ART 4424 or permission of instructor. D

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

ART 4431 Advanced Printmaking 3 credits. Advanced work in printmaking. Choice of medium. PREREQ: ART 3332. F, S

ART 4432 Advanced Printmaking 3 credits. Advanced work in printmaking. Choice of medium. PREREQ: ART 4431. F, S

ART 4441 Advanced Painting and Composition I 3 credits. Special projects, individual experimentation and independent thinking. Continued emphasis placed on conceptual and technical nature of work. High level of work ethic and craftsmanship expected. Frequent readings assigned. Continue artist research. PREREQ: ART 3342. F, S

ART 4442 Advanced Painting and Composition II 3 credits. Special projects, individual experimentation, and independent thinking. Develop a thorough understanding of conceptual and technical nature of work. High level of work ethic and craftsmanship expected. Frequent readings assigned. Continue artist research. PREREQ: ART 4441. F, S

ART 4451 Advanced Metals 3 credits. Experimental work. Individual projects may include plastics, electroplating, electroforming, advanced fabrication or raising techniques. PREREQ: ART 3352. F, S

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

ART 4461 Advanced Weaving 3 credits. Experimental work. Individual projects may include on-loom and off-loom techniques, dyeing processes, basketry, or multilayered fabrics. PREREQ: ART 3362. F, S

ART 4462 Advanced Weaving 3 credits. Experimental work. Individual projects may include on-loom and off-loom techniques, dyeing processes, basketry, or multilayered fabrics. PREREQ: ART 4461. F, S

ART 4471 Advanced Ceramics 3 credits. Individual projects may include ceramic sculpture, mosaics or experimental problems in form and techniques. PREREQ: ART 3371 or ART 3372. F, S, Su

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

ART 4473 Clay and Glaze Calculation 3 credits. Research in clay bodies and glaze calculation. Development of formulas for stoneware, whiteware and porcelain. Simple to complex glaze calculation. Historical use of clays and glazes. PREREQ: ART 2271 or permission of instructor. D

ART 4474 Kiln Construction 3 credits. Historical use and structure of all types of kilns. Design and construction principles of kilns, burner systems, and safety methodology. PREREQ: ART 3371 or permission of instructor. D

ART 4481 Advanced Sculpture 3 credits. Experimental work with an emphasis on scale and environmental problems. PREREQ: ART 3381. F, S

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

ART 4490 Experimental Studio 3 credits. Class work will be in two and three dimension, conceptual art, environmental art, performance and multimedia modes. PREREQ: Three semesters of studio or permission of instructor. D

ART 4491 Advanced Papermaking 3 credits. Further development of topics from ART 3391. PREREQ: ART 3391 or permission of instructor. F

ART 4494 Senior Presentation 1 credit. A retrospective exhibit of the student's best work. This includes techniques of professional presentation, posters and publicity. To be completed under advisor and/or director, Davis Gallery. F, S

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

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 1105, ART 1106, and ARCH 1111.

Required Courses:

ARCH 1111-1112	Graphic Communications	4 cr
ARCH 2255-2256	Basic Architectural Design	6 cr
ARCH 2266	Materials and Methods	3 cr
ART 1100	Survey of Art	3 cr
ART 1103	Creative Process	3 cr
ART 1104	Creative Process	3 cr
ART 1105	Drawing I	3 cr
ART 1106	Drawing II	3 cr
MATH 1143	College Algebra	3 cr
	OR	
MATH 1147	Precalculus	5 cr
MATH 1160	Applied Calculus	3 cr
PHYS 1111	General Physics I	3 cr
PHYS 1112	General Physics II	3 cr
PHYS 1113-1114	General Physics Laboratory	2 cr

Upon completion of ARCH 2255-2256, pre-architecture students are required to display a group exhibit of their work.

Architecture Courses

ARCH 1111 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 1112 Graphic Communication 2 credits. Continuation of ARCH 1111; practice with the methods used in the preparation of design and presentation drawing necessary in any design profession. PREREQ: ARCH 1111. F, S

ARCH 2204 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 2255 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 1112, ART 1103 and ART 1104. F, S

ARCH 2256 Basic Architectural Design 3 credits. Continuation of ARCH 2255. PREREQ: ARCH 2255. F, S

ARCH 2266 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: Scalrone
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
Assistant Professors: Baxter, Cretokos,
Evilia, Loxterman, Ma, Pfau McClellan
Research Assistant Professor: St. Hilaire
Technical Instructional Designer:
C. Bunde
Associate Lecturers: Crandall, Frank
Assistant Lecturers: Aho, Farrar, Harmon,
Shurley
Affiliate Faculty: Apel, Beardsley,
Beckmann, Belzer, Berger, Bleich,
Blew, R. Boeger, W. Boeger, Brandon,
Bryant, C. Bunde, Burch,
Carlson-Lammers, Connelly, Cook,
Cornell, Denton, Eisentrager, Foster,
Frank, Fujita, E. Galindo, Garrison,
Gill, Griswold, Ingram,
Jones-Howard, Lamintina, LaPatra,
Lee, Lenington, Macbeth, Matocq,
McGonigle, Newby, Ogden, Perkel,
Pierce, Porter, Poulson, Ptacek,
Raboy, Ray, Reed, Roberto,
Rosentreter, Runck, Schuerman,
Schwan, Scoville, Shell, L. Smith,
Stephenson, Stevens, Stewart,
Thompson, VerHoef, Watwood,
Weinberg, Wells, White, J. Young,
P. Young, Zager
Emeriti: Akersten, R. Anderson,
Bowmer, .D. Bunde, Farrell, Griffith,
Holte, House, Linder, J. McCune,
R. McCune, W. Minshall, F. Rose,
Seeley, Spall, Spiegel, Streubel,
Trost, Tullis, White

The Department of Biological Sciences offers the following undergraduate degrees:

Associate of Science in Biology
Bachelor of Arts in Biology
Bachelor of Science in Biochemistry*
Bachelor of Science in Biology
Bachelor of Science in Botany
Bachelor of Science in Clinical Laboratory Science
Bachelor of Science in Ecology
Bachelor of Science in Microbiology
Bachelor of Science in Zoology

*(Joint program with the Department of Chemistry.)

The B.S. in Biology program, with fewer required courses than the other B.S. majors, is designed to present the student selecting this major with considerable latitude in developing an individualized program.

It also has the flexibility of permitting a student to select courses to meet the State of Idaho requirements for teacher certification while completing a degree in the Department of Biological Sciences. The student is permitted 67 elective hours in the program. Twenty-seven (27) of these credits must be selected from biology with the remainder restricted only by university general requirements.

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 4481/4482, 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 4493, 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:

General Education Goals for the Bachelor of Science*		variable
BIOL 1101,1101L	Biology I, and Lab	4 cr
BIOL 1102,1102L	Biology II, and Lab	4 cr
BIOL 2209,2209L	General Ecology, and Lab	4 cr
BIOL 2206,2207	Cell Biology, and Lab	4 cr
OR		
BIOL 2221, 2221L	Introductory Microbiology, and Lab	4 cr
MATH 1147	College Algebra and Trigonometry	5 cr
MATH 1160***	Applied Calculus	3 cr
OR		
PHYS 1111, 1113	General Physics I, and Lab	5 cr

Either these four courses:

CHEM 1111, 1111L, and CHEM 1112, 1112L**	General Chemistry I and II, and Labs	9 cr
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OR these three courses:

CHEM 1101	Introduction to General Chemistry	3 cr
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CHEM 1102	Introduction to Organic and Biochemistry	3 cr
CHEM 1103	Introduction to Organic and Biochemistry Laboratory	1 cr
Electives to bring total to 64 cr		variable
TOTAL:		64 cr

Notes:

* 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 1111, 1111L and 1112, 1112L 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.

***MATH 1160 Applied Calculus is highly recommended. MATH 1160 is required for all B.S. and B.A. degrees in the biological sciences. Students may take MATH 1170 in place of MATH 1160. MATH 1160 has a prerequisite of MATH 1143. MATH 1170 has prerequisites of MATH 1143 and 1144. Prerequisites for both classes may be satisfied by the Mathematics placement exam. Please talk to your academic advisor.

Bachelor of Science in Biochemistry

Three Departments—Biological Sciences, Chemistry, and Biomedical and Pharmaceutical Sciences—jointly offer the B.S. degree in biochemistry. The curriculum is designed to prepare the student for graduate work in biochemistry and related fields, as well as for admission to medical, dental, or other health professional schools. The graduate also is prepared to go directly into research or industrial positions which require preparation only at the B.S. level.

The purpose of the B.S. in Biochemistry is to serve students who seek to develop a strong background in biochemistry and the supporting sciences of biology, chemistry and physics. Majors also gain experience in the broad areas of biochemistry, molecular biology, biotechnology, and medical and/or ecological applications of each. Majors gain experience that will prepare them to participate in research development, planning and implementation and to be competent to carry out standard biochemical and molecular biology techniques in the laboratory. The B.S. in Biochemistry prepares students to be competitive for positions in research, graduate schools, health profession schools, and in the biotechnology industry.

Core Requirements*

Students pursuing a Bachelor of Science degree must satisfy 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 1101, 1101L	Biology I, and Lab	4 cr
BIOL 1102, 1102L	Biology II, and Lab	4 cr
BIOL 2235, 2235L	General Microbiology	4 cr
BIOL 3358	Genetics	3 cr
BIOL 4437/CHEM 4438	Experimental Biochemistry	1 cr
BIOL 4444, 4444L	Cell and Molecular Biology, and Lab	5 cr
BIOL/CHEM 4445	Biochemistry I	3 cr
BIOL/CHEM 4447	Biochemistry II	3 cr
BIOL/CHEM 4448	Advanced Experimental Biochemistry	2 cr
BIOL/CHEM 4498	Seminar in Biochemistry	1 cr
CHEM 1111, 1111L	General Chemistry I, and Lab	5 cr
CHEM 1112, 1112L	General Chemistry II, and Lab	4 cr
CHEM 2232, 2234	Quantitative Analysis, and Lab	4 cr
CHEM 3301, 3303	Organic Chemistry I, and Lab	4 cr
CHEM 3302, 3304	Organic Chemistry II, and Lab	4 cr
CHEM 3341**	Topics in Physical Chemistry I	3 cr
CHEM 3342**	Topics in Physical Chemistry II	3 cr
MATH 1170	Calculus I	4 cr
MATH 1175	Calculus II	4 cr
PHYS 1111, 1113***	General Physics I, and Lab	4 cr
PHYS 1112, 1114***	General Physics II, and Lab	4 cr
Subtotal:		73 cr
General Education Requirements		24 cr
TOTAL:		97 cr

*Students must pass core courses with a grade of C- or better.

**May elect to take CHEM 3351 and 3352 instead of CHEM 3341 and 3342.

***PHYS 2211, 2212, 2213, 2214 may be taken to fulfill the Physics requirement in the core curriculum.

Track 1: Biological Chemistry (9 cr)

CHEM 2211, 2213	Inorganic Chemistry, and Lab	4 cr
CHEM 3331, 3334	Instrumental Analysis, and Lab	4 cr
CHEM 4492	Seminar	1 cr

Track 2: Biochemistry and Molecular Biology (8 cr)

BIOL 3303, 3303L	Animal, or Plant, or Microbial Physiology, and Lab	4 cr
BIOL 4461	Advanced Genetics	3 cr
BIOL 4492	Seminar	1 cr

Track 3: Physiological Biochemistry (8 cr)

BIOL 3302, 3302L	Anatomy and Physiology, and Lab	4 cr
PSCI 3301	Introduction to Pharmacology	3 cr
BIOL 4492	Seminar	1 cr

Electives

Students must take a minimum of 12 credits, with at least 3 credits in Biological Sciences (BIOL), 3 credits in Chemistry (CHEM), and 3 credits in Biomedical and Pharmaceutical Sciences (PSCI). Advanced or experimental courses are acceptable. These courses satisfy the electives requirement only if they are not required for a specific Biochemistry track.

BIOL 3301, 3301L	Anatomy and Physiology, and Lab	4 cr
BIOL 3302, 3302L	Anatomy and Physiology and Lab	4 cr

BIOL 3303, 3303L	Principles of Animal Physiology, and Lab	4 cr
BIOL 3324, 3324L	Developmental Biology and Lab	4 cr
BIOL 4404	Plant Physiology	4 cr
BIOL 4415, 4415L	Human Neurobiology, and Lab	5 cr
BIOL 4417	Organic Evolution	3 cr
BIOL 4433, 4433L	Microbial Physiology, and Lab	4 cr
BIOL 4434, 4434L	Microbial Diversity, and Lab	4 cr
BIOL 4443	Endocrinology	3 cr
BIOL 4449, 4449R / PHAR 9949, 9949R	Human Physiology, and Recitation	4 cr
BIOL 4451, 4451L	Immunology, and Lab	4 cr
BIOL 4456, 4456R / PHAR 9956, 9956R	Human Physiology II, and Recitation	4 cr
BIOL 4461	Advanced Genetics	3 cr
BIOL 4463, 4463L	Human Pathophysiology, and Lab	4 cr
BIOL 4473, 4473L	Applied and Environmental Microbiology, and Lab	4 cr
BIOL 4475	General Virology	3 cr
BIOL 4477 or 4478	Bacterial or Animal Virology Laboratory	1 cr
BIOL 4481 and/or 4482	Independent Problems (max 2 credits)	2 cr
BIOL 4488	Advanced Radiobiology	3 cr
CHEM 2211, 2213	Inorganic Chemistry, and Lab	4 cr
CHEM 3311 and/or 3312	Introduction to Research (max) 2 cr	2 cr
CHEM 3331, 3334	Instrumental Analysis, and Lab	4 cr
CHEM 3365, 3366	Synthetic Methods, and Lab	4 cr
CHEM 4407*	Inorganic Chemistry II	2 cr
CHEM 4433, 4437	Environmental Chemistry, and Lab	3 cr
CHEM 4453**	Modern Experimental Physical Chemistry**	3 cr
CHEM 4481 and/or 4482	Independent Problems (max)	2 cr
MATH 2240	Linear Algebra	3 cr
MATH 2275	Calculus III	4 cr
MATH 3360	Differential Equations	3 cr
PSCI 2205	Drugs in Society	2 cr
PSCI 3301	Introduction to Pharmacology	3 cr
PSCI 3308	Drug Discovery	3 cr
PSCI 3353	Introduction to Methods in Pharmaceutical Sciences	2 cr
PSCI 3368	Introduction to Toxicology	3 cr
PSCI 4402	Immunopharmacology	2 cr
PSCI 4403	Infectious Diseases and Natural Products	3 cr
PSCI 4407	Pharmacogenomics	2 cr
PSCI 4408	Medicinal Chemistry	3 cr
PSCI 4431	Cancer Biology	3 cr
PSCI 4434	Pharmacokinetics	3 cr
PSCI 4440	Fundamentals of Nanoscience	3 cr

*Prerequisites include CHEM 2211, 2211L, 3351, and 3352.

**Prerequisites include CHEM 3334, 3351, and 3352.

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 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 1101,1101L Biology I, and Lab	4 cr
BIOL 1102,1102L Biology II, and Lab	4 cr
BIOL 2206,2207 Cell Biology, and Lab	4 cr
BIOL 2209,2209L General Ecology, and Lab	4 cr
BIOL 3358 Genetics	3 cr
BIOL 4417 Organic Evolution	3 cr
BIOL 4491 or 4492 Seminar	1 cr
Additional upper division course work in Biological Sciences,	28 cr
which must include at least 6 credits in Botany (BIOL 4404, 4405, 4406, 4408, 4409, or 4412) and at least 6 credits in Zoology (BIOL 3310, 3314, 3324, 4419, 4420, 4423, 4426, 4427, 4429, 4431, 4435, 4438, 4440, 4441, 4443, 4449, 4456, 4459, 4470, 4486, or 4495)	
CHEM 1111,1111L General Chemistry I, and Lab 5 cr	
CHEM 1112,1112L General Chemistry II, and Lab 4 cr	
MATH 1160 Applied Calculus (see note 5) 3 cr	
TOTAL:	64 cr

Notes:

- Students pursuing a Bachelor of Arts degree must satisfy all of the General Education goals.
- Students who plan to apply to graduate or professional programs in the biological or medical sciences are strongly advised to take CHEM 1111, 1111L and CHEM 1112, 1112L, a full year of Organic Chemistry (add CHEM 3302, 3304), and a full year of Physics (add PHYS 1112, 1114). These classes are required by many graduate and professional programs.
- 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.
- 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 the University Bulletin for requirements in the College of Education.
- Students may take MATH 1170 in place of MATH 1160. MATH 1160 has a prerequisite of MATH 1143. MATH 1170 has prerequisites of MATH 1143 and 1144. Prerequisites for both classes can be satisfied by the Mathematics placement exam.
- Up to 8 credits of Organic Chemistry may be counted towards required upper division credits in Biological Sciences.
- A maximum of 8 credits of BIOL 4481/4482, Independent Problems, may be applied to this degree program.

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 1101,1101L Biology I, and Lab	4 cr
BIOL 1102,1102L Biology II, and Lab	4 cr
BIOL 2206,2207 Cell Biology, and Lab	4 cr
BIOL 2209,2209L General Ecology, and Lab	4 cr
BIOL 2235,2235L General Microbiology, and Lab	4 cr
BIOL 3358 Genetics	3 cr
BIOL 4417 Organic Evolution	3 cr
BIOL 4491,4492 Seminars	2 cr
Additional upper division courses in Biological Sciences,	21 cr
which must include at least 6 credits in Botany: (BIOL 4404, 4405, 4406, 4408, 4409, or 4412) and at least 6 credits in Zoology: (BIOL 3310, 3314, 3324, 4419, 4420, 4423, 4426, 4427, 4429, 4431, 4435, 4438, 4440, 4441, 4443, 4449, 4456, 4459, 4470, 4486, or 4495)	
CHEM 1111,1111L General Chemistry I, and Lab 5 cr	
CHEM 1112,1112L General Chemistry II, and Lab 4 cr	
CHEM 3301,3303 Organic Chemistry I, and Lab 4 cr	
MATH 1160 Applied Calculus (see note 5) 3 cr	
MATH 3350 Statistical Methods (see note 5) 3 cr	
BIOL 3316 Biometry Laboratory	1 cr
PHYS 1111,1113 General Physics I, and Lab	4 cr
TOTAL:	73 cr

Notes:

- 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.
- 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 3302, 3304) and a full year of Physics (add PHYS 1112, 1114). These classes are required by many graduate and professional programs.
- Biology electives must include upper division course work in both botany and zoology. 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.
- 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 1170 in place of MATH 1160. MATH 1160 has a prerequisite of MATH 1143. MATH 1170 has prerequisites of MATH 1143 and 1144. Prerequisites for both classes can be satisfied by the Mathematics placement exam. The requirement for MATH 3350 and BIOL 3316 may be satisfied by taking MGT 2216 and MGT 2217. MATH 1153 does not satisfy this requirement.

6. CHEM 3302/3304 may be counted towards required upper division credits in Biological Sciences.

7. A maximum of 8 credits of BIOL 4481/4482, 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 advance training in specific fields of study to provide experiences that are professionally relevant. The B.S. in botany major is recommended to students who plan careers related to the biology of plants, including areas like plant conservation, developmental biology, ecology, evolutionary biology, horticulture, physiology, and systematics. The Botany degree prepares students for direct employment with public agencies and private companies, or for entry into graduate school.

1. Courses in Biological Sciences

BIOL 1101,1101L Biology I and Lab	4 cr
BIOL 1102,1102L Biology II and Lab	4 cr
BIOL 2206,2207 Cell Biology, and Lab	4 cr
BIOL 2209,2209L General Ecology, and Lab	4 cr
BIOL 3358 Genetics	3 cr
BIOL 4404,4404L Elements of Plant Physiology, and Lab	4 cr
BIOL 4406,4406L Plant Diversity and Evolution, and Lab	4 cr
BIOL 4408,4408L Plant Ecology, and Lab	3 cr
BIOL 4412,4412L Systematic Botany, and Lab	4 cr
BIOL 4417 Organic Evolution	3 cr
BIOL 4491,4492 Seminars	2 cr

Plus at least 6 credits from the following upper division Botany electives:

BIOL 3313 Plants and Human Prospects	3 cr
BIOL 4405,4405L Plant Form and Function, and Lab	3 cr
BIOL 4416,4416L Population and Community Ecology, and Lab	3 cr
BIOL 4442,4442L Plant/Animal Interactions, and Lab	3 cr
BIOL 4489 Field Ecology	3 cr
BIOL 4481/4482 Independent Problems	1-6 cr
BIOL 4493 Senior Thesis	1-4 cr

2. Courses in Mathematics and Statistics*

BIOL 3316 Biometry Laboratory	1 cr
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MATH 1160	Applied Calculus	3 cr
MATH 3350	Statistical Methods	3 cr

3. Courses in Chemistry and Physics**

CHEM 1111,1111L	General Chemistry I, and Lab	5 cr
CHEM 1112,1112L	General Chemistry II, and Lab	4 cr
CHEM 3301, 3303	Organic Chemistry I, and Lab	4 cr
PHYS 1111, 1113	General Physics I, and Lab	4 cr

Notes:

* Students may take MATH 1170 in place of MATH 1160. MATH 1160 has a prerequisite of MATH 1143. MATH 1170 has a prerequisite of MATH 1143 and 1144. Prerequisite requirements may be satisfied by the Mathematics placement exam.

**Students planning to apply to graduate programs are advised to take CHEM 3302, 3304 or BIOL 4432, AND PHYS 1112, 1114.

BIOL 4406,4406L	Plant Diversity and Evolution, and Lab	4 cr
BIOL 4412,4412L	Systematic Botany, and Lab	4 cr
BIOL 4426,4426L	Herpetology, and Lab	3 cr
BIOL 4427,4427L	Ichthyology, and Lab	3 cr
BIOL 4431,4431L	General Entomology, and Lab	3 cr
BIOL 4435	Vertebrate Paleontology	4 cr
BIOL 4438	Ornithology	3 cr
BIOL 4441,4441L	Mammalogy, and Lab	3 cr
BIOL 4495	Ethology	3 cr

4. Required Quantitative Skills

Courses †

BIOL 3316	Biometry Laboratory	1 cr
MATH 3350	Statistical Methods	3 cr
PHYS 1111,1113	General Physics I, and Lab	4 cr

Plus one of the following courses:

GEOL 4403,4403L	Introduction to GIS	3 cr
MATH 1175	Calculus II (must have MATH 170)	4 cr
MATH 2240	Linear Algebra	3 cr
MATH 2287	Foundations of Mathematics	3 cr
PHYS 1112	General Physics II	3 cr

5. Required Supporting Sciences

Courses**,***,§

CHEM 1111,1111L	General Chemistry I, and Lab	5 cr
CHEM 1112,1112L	General Chemistry II, and Lab	4 cr
CHEM 3301,3303	Organic Chemistry I, and Lab	4 cr
MATH 1160	Applied Calculus	3 cr
	OR	
MATH 1170	Calculus I	4 cr

Plus one of the following courses:

BIOL 4432	Biochemistry (1 semester class)	3 cr
BIOL 4445	Biochemistry I	3 cr
BIOL 4447	Biochemistry II	3 cr
CHEM 3302,3304	Organic Chemistry II, and Lab	4 cr
GEOL 1101,1101L	Physical Geology, and Lab	4 cr
GEOL 4402	Geomorphology	4 cr
GEOL 4406	Environmental Geology	3 cr
GEOL 4409	Remote Sensing	3 cr
GEOL 4415	Quaternary Geology	3 cr
GEOL 4420	Principles of Geochemistry	3 cr
GEOL 4421	Structural Geology	4 cr
GEOL 4430	Principles of Hydrogeology	3 cr
GEOL 4445	Principles of Geophysics	4 cr
GEOL 4452	Sedimentation–Stratigraphy	3 cr
MATH 1175	Calculus II	4 cr
MATH 2240	Linear Algebra	3 cr
MATH 2287	Foundations of Mathematics	3 cr
PHYS 1112	General Physics II	3 cr
PHYS 4412	Environmental Health Physics	3 cr

Notes:

* It is recommended that additional credits be taken in BIOL 4481-4482, Independent Problems, or BIOL 4493, Senior Thesis, in the area of ecology. A maximum of 8 credits of BIOL 4481/4482 may be applied to this degree program. ECON 2201 and 2202 are highly recommended (only 3 credits apply toward 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 1170 in place of MATH 1160. MATH 1160 has a prerequisite of MATH 1143. MATH 1170 has prerequisites of MATH 1143 and 1144. Prerequisites for both classes can be satisfied by the Mathematics placement exam. The requirement for MATH 3350 and BIOL 3316 may be met by MGT 2216 and MGT 2217. MATH 1153 does not satisfy this requirement.

† Credits for BIOL 4481, 4482, 4493 or 4499 can be substituted for courses in categories 2, 3, and 4, subject to approval by the Assistant Chair for Undergraduate Programs.

A maximum of 8 credits of BIOL 4481/4482, Independent Problems, may be applied to this degree program.

Bachelor of Science in Microbiology

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, 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. Students must also satisfy the core requirements listed below, the requirements for one of the microbiology tracks, and 6 credits of elective courses in Microbiology. All graduates of this program will earn a B.S. in Microbiology, irrespective of which track is selected.

Courses in Biological Sciences

BIOL 1101,1101L	Biology I, and Lab	4 cr
BIOL 1102,1102L	Biology II, and Lab	4 cr
BIOL 2235,2235L	General Microbiology, and Lab	4 cr
BIOL 3358	Genetics	3 cr
BIOL 4432†	Biochemistry†	3 cr
	OR	

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:

BIOL 1101,1101L	Biology I, and Lab	4 cr
BIOL 1102,1102L	Biology II, and Lab	4 cr
BIOL 2206, 2207	Cell Biology, and Lab	4 cr
BIOL 3358	Genetics	3 cr
BIOL 4417	Organic Evolution	3 cr
BIOL 4491 or 4492	Senior Seminar	1 cr

2. Required Ecology Courses*, †

BIOL 1192	Ecology Seminar	1 cr
BIOL 2209,2209L	General Ecology, and Lab	4 cr
BIOL 4418	Ecological Topics	1-3 cr
BIOL 4489	Field Ecology	3 cr
BIOL 4496	Ecology Senior Seminar	1 cr

Plus two of the following courses:

BIOL 3337	Conservation of Natural Resources	3 cr
BIOL 4408,4408L	Plant Ecology, and Lab	3 cr
BIOL 4416,4416L	Population and Community Ecology, and Lab	3 cr
BIOL 4442	Plant/Animal Interactions	3 cr
BIOL 4459	Fish Ecology	3 cr
BIOL 4462	Freshwater Ecology	3 cr
BIOL 4476,4476L	Ecology of Water Pollution, and Lab	3 cr

3. Organismal Biology (Take two of the following courses)†

BIOL 3303,3303L	Principles of Animal Physiology, and Lab	4 cr
BIOL 3310,3310L	Invertebrate Zoology, and Lab	4 cr
BIOL 4404,4404L	Plant Physiology, and Lab	4 cr
BIOL 4405,4405L	Plant Form and Function, and Lab	3 cr

BIOL 4445	Biochemistry I	3 cr
BIOL 4433,4433L	Microbial Physiology, and Lab	4 cr
BIOL 4434,4434L	Microbial Diversity, and Lab	4 cr
BIOL 4437/CHEM 4438	Experimental Biochemistry	1 cr
BIOL 4444,4444L	Cell and Molecular Biology, and Lab	5 cr
BIOL 4451,4451L	Immunology, and Lab	4 cr
BIOL 4498	Seminar in Biochemistry	1 cr
BIOL 4494	Seminar in Microbiology	1 cr

Courses in Chemistry

CHEM 1111,1111L	General Chemistry I, and Lab	5 cr
CHEM 1112,1112L	General Chemistry II, and Lab	4 cr
CHEM 2232,2234	Quantitative Analysis, and Lab	4 cr
CHEM 3301,3303	Organic Chemistry I, and Lab	4 cr
CHEM 3302,3304	Organic Chemistry II, and Lab	4 cr

Courses in Mathematics*

MATH 1160	Brief Calculus	3 cr
	OR	
MATH 1170	Calculus I	4 cr

Courses in Physics

PHYS 1111,1113	General Physics I, and Lab	4 cr
PHYS 1112,1114	General Physics II, and Lab	4 cr

MICROBIOLOGY TRACK 1:

Molecular Microbiology and Microbial Biochemistry, for students interested in:

- molecular microbiology
- microbial biochemistry
- industrial microbiology
- environmental microbiology

BIOL/CHEM 4447†	Biochemistry II†	3 cr
BIOL/CHEM 4448	Advanced Experimental Biochemistry	2 cr
BIOL:4461	Advanced Genetics	3 cr
BIOL 4473, 4473L	Applied and Environmental Microbiology, and Lab	4 cr

MICROBIOLOGY TRACK 2:

Medical Microbiology/Pre-Health Professions, for students interested in:

- medical microbiology
- immunology
- the health professions

BIOL 4454	Advanced Immunology	3 cr
BIOL 4455, 4455L	Pathogenic Microbiology, and Lab	5 cr
BIOL 4475	General Virology	3 cr
BIOL 4477 or 4478	Bacterial or Animal Virology Lab	1 cr

Electives:

In addition to the core courses and the courses in either Track 1 or Track 2, students must choose a minimum of 6 credits from the following course list. Courses taken to satisfy the track requirements will not count toward the electives requirement.

BIOL 4454	Advanced Immunology	3 cr
BIOL/CHEM 4448	Advanced Experimental Biochemistry	2 cr
BIOL 4455, 4455L	Pathogenic Microbiology, and Lab	5 cr
BIOL:4461	Advanced Genetics	3 cr
BIOL 4466	Medical Mycology	3 cr
BIOL 4473, 4473L	Applied and Environmental Microbiology, and Lab	4 cr
BIOL 4475	General Virology	3 cr
BIOL 4477 or 4478	Bacterial or Animal Virology Lab	1 cr
BIOL 4481 and/or 4482	Independent Problems	(max) 3 cr

Notes:

*Additional courses in Mathematics that are highly recommended for students planning to attend graduate

school are MATH 1175 (prerequisite is MATH 1170), 2275, 3330, or 3360.

†In order to satisfy the Biochemistry course requirement, students in Track 1 must take BIOL/CHEM 4445 (Biochemistry I) and BIOL/CHEM 4447 (Biochemistry II) instead of BIOL 4432. Students will not receive credit for both BIOL 4432 and the BIOL/CHEM 4445/4447 sequence.

Bachelor of Science in Zoology

The purpose of the B.S. in Zoology is to serve students who have a broad interest in zoology and who seek to develop a strong background in supporting disciplines. Majors gain substantial exposure to concepts in math and the physical sciences, broad exposure to cell biology, genetics, anatomy, physiology, and animal diversity, and the opportunity to develop strengths in specific disciplines. This degree fosters knowledge and understanding of major concepts in the discipline as well as the processes of scientific investigation. The B.S. in Zoology prepares students to pursue graduate education, to satisfy the admission requirement for health related professional schools, and to develop investigative skills.

Required Courses*,**

BIOL 1101,1101L	Biology I, and Lab	4 cr
BIOL 1102,1102L	Biology II, and Lab	4 cr
BIOL 2206,2207	Cell Biology, and Lab	4 cr
BIOL 2209,2209L	General Ecology, and Lab	4 cr
BIOL 3303,3303L	Principles of Animal Physiology, and Lab	4 cr
BIOL 3310,3310L	Invertebrate Zoology, and Lab	4 cr
BIOL 3314,3314L	Comparative Vertebrate Anatomy, and Lab	4 cr
	OR	
BIOL 3324,3324L	Developmental Biology, and Lab	4 cr
BIOL 3316	Biometry Laboratory	1 cr
BIOL 4417	Organic Evolution	3 cr
BIOL 3358	Genetics	3 cr
BIOL 4491,4492	Seminars	2 cr
CHEM 1111, 1111L	General Chemistry I, and Lab	5 cr
CHEM 1112, 1112L	General Chemistry II, and Lab	4 cr
CHEM 3301,3303	Organic Chemistry I, and Lab	4 cr
CHEM 3302,3304	Organic Chemistry II, and Lab	4 cr
MATH 1147	Precalculus	3 cr
MATH 1160	Applied Calculus	3 cr
MATH 3350	Statistical Methods***	3 cr
PHYS 1111,1113	General Physics I, and Lab	4 cr
PHYS 1112,1114	General Physics II, and Lab	4 cr
Electives (upper-division zoology)		6 cr
	TOTAL:	78 cr

Notes:

*The requirement for BIOL 3303 may be satisfied by taking BIOL 3301 and 3302, Anatomy and Physiology.

**Students may take MATH 1170 in place of MATH 1160. MATH 1160 has a prerequisite of MATH 1143. MATH 1170 has prerequisites of MATH 1143 and 1144. Prerequisites for both classes can be satisfied by the Mathematics placement exam.

***The requirement for MATH 3350 and BIOL 3316 may be satisfied by taking MGT 2216 and MGT 2217. MATH 1153 does not satisfy this requirement.

Students pursuing a Bachelor of Science degree program must satisfy 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.

Minors in Biological Sciences

Minor in Biology

The Biology Minor is available only for majors outside of the Biological Sciences.

BIOL 1101,1101L	Biology I, and Lab	4 cr
BIOL 1102,1102L	Biology II, and Lab	4 cr
BIOL 2221,2221L	Introductory Microbiology, and Lab	4 cr
BIOL 2206,2207	Cell Biology, and Lab	4 cr
BIOL 2209,2209L	General Ecology, and Lab	4 cr
BIOL 3358	Genetics	3 cr
BIOL 4417	Organic Evolution	3 cr
Upper division Biology courses*		3-4 cr
	TOTAL:	29-30 cr

*BIOL 4481-4482, BIOL 4491-4492, and BIOL 4494 may not be used without prior approval of the departmental chair or assistant chair.

Minor in Botany

BIOL 1101,1101L	Biology I, and Lab	4 cr
BIOL 1102,1102L	Biology II, and Lab	4 cr
BIOL 2206,2207	Cell Biology, and Lab	4 cr
BIOL 2209,2209L	General Ecology, and Lab	4 cr
BIOL 3358	Genetics	3 cr
BIOL 4417	Organic Evolution	3 cr
Upper division Botany courses*		7-8 cr
	TOTAL:	28-30 cr

*BIOL 4481-4482 and BIOL 4491-4492 may not be used without prior approval of the departmental chair or assistant chair.

Minor in Ecology

BIOL 1101,1101L	Biology I, and Lab	4 cr
BIOL 1102,1102L	Biology II, and Lab	4 cr
BIOL 1192	Ecology Seminar	1 cr
BIOL 2209,2209L	General Ecology and Lab	4 cr

Any combination of the following courses to total 12 credits:

BIOL 3320	Physiological Ecology	3 cr
BIOL 3337	Conservation of Natural Resources	3 cr
BIOL 4408,4408L	Plant Ecology, and Lab	3 cr
BIOL 4416,4416L	Community Ecology, and Lab	3 cr
BIOL 4418	Ecological Topics	2 cr
BIOL 4452	Population Ecology	3 cr
BIOL 4459	Fish Ecology	3 cr
BIOL 4462,4462L	Fresh Water Ecology, and Lab	3 cr
BIOL 4476,4476L	Ecology of Water Pollution, and Lab	3 cr
BIOL 4489	Field Ecology	3 cr
<i>(BIOL 4481-4482 and BIOL 4491-4492 may not be used without prior approval of the departmental chair or assistant chair.)</i>		

Minor in Microbiology

BIOL 2235,2235L	General Microbiology and Lab	4 cr
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Any combination of the following courses to total 14 credits:

BIOL 3358	Genetics	3 cr
BIOL 4432	Biochemistry	3 cr
BIOL 4433,4433L	Microbial Physiology, and Lab	4 cr

BIOL 4434,4434L Microbial Diversity, and Lab	4 cr
BIOL 4437/CHEM 4438 Experimental Biochemistry	1 cr
BIOL 4444,4444L Molecular Biology, and Lab	4 cr
BIOL 4451,4451L Immunology, and Lab	4 cr
BIOL 4455,4455L Pathogenic Microbiology, and Lab	5 cr
BIOL 4461 Advanced Genetics	3 cr
BIOL 4475 General Virology	3 cr
BIOL 4477 Bacterial Virology Laboratory	1 cr
BIOL 4478 Animal Virology Laboratory	1 cr
<i>*BIOL 4481/4482, BIOL 4491/4492, and BIOL 4494 may not be used without prior approval of the departmental chair or assistant chair.</i>	

Minor in Zoology

BIOL 1101,1101L Biology I, and Lab	4 cr
BIOL 1102,1102L Biology II, and Lab	4 cr
BIOL 2206,2207 Cell Biology, and Lab	4 cr
BIOL 2209,2209L General Ecology, and Lab	4 cr
BIOL 3358 Genetics	3 cr
BIOL 4417 Organic Evolution	3 cr
Upper division Zoology courses*	7-8 cr
TOTAL: 29-30 cr	

**BIOL 4481-4482 and BIOL 4491-4492 may not be used without prior approval of the departmental chair or assistant chair.*

Clinical Laboratory Science Program

Description of the Program

Clinical Laboratory Scientists perform, develop, evaluate, correlate and assure validity of laboratory information; direct and supervise clinical laboratory resources and operations; and collaborate in the diagnosis and treatment of patients. Clinical Laboratory Scientists practice in a variety of settings including hospitals, private laboratories, research and development laboratories, public health laboratories, and regulatory agencies, and also find positions in health care education and management.

Accreditation

The Clinical Laboratory Science program is accredited by:

National Accrediting Agency for Clinical Laboratory Sciences
5600 N. River Rd., Ste. 720
Rosemont, IL 60018-5119

Degree Alternatives

The CLS Program at Idaho State University offers two degree alternatives at the baccalaureate level:

1. B.S. in Clinical Laboratory Science;

2. A second B.S. in CLS for students who have completed degree requirements in related disciplines from accredited institutions and take the 38 credit professional block of CLS courses.

Admission Criteria

Admissions are competitive. The deadline for entrance to the CLS professional block in the Fall semester is May 1. At that time, up to 20 students will be selected. The qualified alternates, along with any late applicants, will be evaluated on August 1 for inclusion in the class if additional seats become available. Progression in the program is dependent upon successful academic progress as determined by CLS faculty evaluation in December and May of the program year. Application materials, including criteria for selection and progression, are available from the Department of Biomedical and Pharmaceutical Sciences and may be downloaded from the CLS website (isu.edu/cls).

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 4411N).

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 4411N (Clinical Experience) is offered in live lecture/lab classes and via WEB CT (electronic delivery) in both Pocatello and Meridian. With permission of the program director, the professional block can be taken on-line. 4411N (Clinical Experience) is arranged through participating hospitals and clinics throughout Idaho and adjacent states.

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 Biomedical and Pharmaceutical 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 4411 Series to total 33 credits (additional credits of Experience for a total of 38 required for eligibility to sit for registry exams).

BIOL 4411Q	Introduction to Clinical Laboratory Science	2 cr
BIOL 4411P	Phlebotomy, Urinalysis and Waived Testing	2 cr
BIOL 4411F	Clinical Hematology	3 cr
BIOL 4411J	Clinical Chemistry	3 cr
BIOL 4411G	Critical Analysis of Laboratory Values	3 cr
BIOL 4411K	Molecular Biology Laboratory Methods	3 cr
BIOL 4411D	Clinical Microbiology I	3 cr
BIOL 4411E	Clinical Microbiology II	3 cr
BIOL 4411M	Research	1-3 cr
	OR	
BIOL 6648	Graduate Research	1-3 cr
BIOL 4411S	Laboratory Analysis and Management	3 cr
BIOL 4411V	Immunology and Transfusion Medicine	3 cr
BIOL 4411I	Clinical Immunology	3 cr
BIOL 4411N	Transfusion Medicine II Clinical Experience	3 cr 1-6 cr

Bachelor of Science in Clinical Laboratory Science

The B.S. in Clinical Laboratory Science (CLS) prepares students as Clinical Laboratory Scientists or Medical Technologists and for graduate level programs in CLS or related disciplines. Students develop a strong background in the broad areas of microbiology, molecular biology, biotechnology, and their medical and/or clinical applications. Majors gain the ability to carry out standard microbiological, mo-

lecular biological and clinical techniques in the laboratory and to participate in research development, planning, and implementation. The B.S. in CLS prepares students to have a reasonable expectation of passing a national qualifying exam for the medical technology profession and prepares students to be qualified to work at the professional level in a variety of settings.

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, and 8, and three of Goals 9, 10a/10b, 11 or 12.

2. Required Science and Math Courses:

Chemistry:
CHEM 1111, 1111L, and CHEM 1112, 1112L
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 1101, 1101L, 1102, 1102L
Biology I and II, and Labs 8 cr
AND
BIOL 2206, 2207 Cell Biology, and Lab 4 cr

Mathematics:
MATH 1143 College Algebra 3 cr
MATH 1160 Applied Calculus 3 cr
OR
MATH 1153 Introduction to Statistics 3 cr

Genetics:
BIOL 3358 Genetics 3 cr

Cell Function:
BIOL 2206, 2207 Cell Biology, and Lab 4 cr
OR
BIOL 4433 Microbial Physiology 4 cr

Pathology:
BIOL 4463 Human Pathophysiology 4 cr
OR
BIOL 3305 Introduction to Pathobiology 3 cr
AND

Immunology:
BIOL 4451, 4451L Immunology and Lab cr

Other:
BIOL 2235 General Microbiology 4 cr
AND
Human Anatomy and Physiology courses to total 8 credits.

Seminar (2 credits, chosen from the following):
BIOL 4491 or 4492 Seminar 1 cr
BIOL 4494 Seminar in Microbiology 1 cr

3. Required Clinical Courses (Professional Block)

4. 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

BIOL 1100 Concepts Biology: Human Concerns 4 credits. Considers biological issues related to human environment, population, inheritance, and basic concepts of resource conservation. Historical, contemporary and future implications of these issues are discussed. Lectures, laboratories. COREQ: BIOL 1100L. With BIOL 1100L, satisfies Goal 4 of the General Education Requirements. F, S

BIOL 1100L Concepts Biology: Human Concerns Lab 0 credits. Assignments to apply principles from BIOL 1100. F, S

BIOL 1101 Biology I 4 credits. Major concepts in biology with an emphasis on the acquisition of new knowledge, cell structure and function, principles of inheritance, and evolution. This course is for students majoring in the biological sciences. Lectures, laboratories. COREQ: BIOL 1101L. With BIOL 1101L, satisfies Goal 4 of the General Education Requirements. F, S

BIOL 1101L Biology I Lab 0 credits. Assignments to apply principles from BIOL 1101. F, S

BIOL 1102 Biology II 4 credits. Major concepts in biology with an emphasis on the development of diversity, plant and animal structure and function, ecology, and behavior. This course is for students majoring in the biological sciences. Lectures, laboratories. PREREQ: BIOL 1101. COREQ: BIOL 1102L. F, S

BIOL 1102L Biology II Lab 0 credits. Assignments to apply principles from BIOL 1102. F, S

BIOL 1192 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 2206 Cell Biology 3 credits. Study of cell structure and function, and experimental techniques used to study cells. Topics include cellular chemistry, expression of genetic information, protein sorting, reproduction, the cytoskeleton, signaling and cancer. PREREQ: BIOL 1101, BIOL 1102, CHEM 1111, and CHEM 1111L. PREREQ OR COREQ: CHEM 1112 and CHEM 1112L. COREQ: BIOL 2207 for majors requiring BIOL 2207. F, S

BIOL 2207 Cell Biology Laboratory 1 credit. Experiments applying selected concepts from BIOL 2206. PREREQ: BIOL 1101 and BIOL 1102; one year of college chemistry or permission of instructor. PREREQ OR COREQ: BIOL 2206. F, S

BIOL 2209 General Ecology 4 credits. Organisms in relation to their environment. Field trips. PREREQ: BIOL 1101 and BIOL 1102. COREQ: BIOL 2209L. F, S

BIOL 2209L General Ecology Lab 0 credit. F, S

BIOL 2213 Fall Flora 2 credits. For teachers and others who wish to become acquainted with Idaho plants. Common names are emphasized. Common cultivated and native plants are collected and identified. F

BIOL 2214 Spring Flora 2 credits. For those who wish to become acquainted with the common names and habitat of edible, poisonous, native, and cultivated springtime plants of southeast Idaho. Identification and collection techniques are emphasized. S

BIOL 2221 Introductory Microbiology 3 credits. Essential principles of microbiology and an introduction to various applications of economic importance. No credit if taken after BIOL 2235. PREREQ: CHEM 1101, or CHEM 1111 and CHEM 1111L; BIOL 1101. COREQ: BIOL 2221L. F, S

BIOL 2221L Introductory Microbiology Laboratory 1 credit. PREREQ or COREQ: BIOL 2221. F, S

BIOL 2230 Bioethics 3 credits. Examination of recent advances in biology and medicine in relation to basic ethical theories and traditional value systems. Focuses on human reproduction, genetic engineering, medical care, humans as experimental subjects, environmental issues, and death and dying. D

BIOL 2235 General Microbiology 3 credits. Comparative taxonomy, cytology, physiology, genetics, immunology, and ecology of microorganisms, and a survey of important applications. This course is a corequisite for BIOL 2235L. May be repeated upon completion of BIOL 2235L. PREREQ: BIOL 1101 and CHEM 3301. COREQ: BIOL 2235L. F, S

BIOL 2235L General Microbiology Lab 1 credit. Laboratory exercises covering comparative taxonomy, cytology, physiology, genetics, immunology, and ecology of microorganisms. PREREQ: BIOL 1101 and CHEM 3301. COREQ: BIOL 2235. F, S

BIOL 3301 Anatomy and Physiology 4 credits. Structures and functions of integumentary, skeletal, muscular, and nervous systems. PREREQ: BIOL 1101. COREQ: BIOL 3301L. F

BIOL 3301L Anatomy and Physiology Lab 0 credit. F

BIOL 3302 Anatomy and Physiology 4 credits. Structures and functions of circulatory, respiratory, urinary, digestive, endocrine, and reproductive systems. PREREQ: BIOL 1101. COREQ: BIOL 3302L. S

BIOL 3302L Anatomy and Physiology Lab 0 credit. S

BIOL 3303 Principles of Animal Physiology 4 credits. Compares homeostatic processes including ionic and osmotic regulation, nerve and muscle physiology, circulation, and respiration. PREREQ: BIOL 1101 and 1102, and one year of college chemistry. COREQ: BIOL 3303L. S

BIOL3303L Animal Physiology Lab 0 credit. S

BIOL 3305 Introduction to Pathobiology 3 credits. Concepts of pathobiology, to include causes, common mechanisms and manifestations of human disease. Patterns of pathogenesis as related to physiological mechanisms are examined. PREREQ: BIOL 3301 and BIOL 3302. F

BIOL 3307 Radiobiology 2 credits. Online course. Survey of the effects of ionizing radiation on living matter at the subcellular, cellular, and organismal levels. PREREQ: BIOL 1101, PHYS 1111, and PHYS 1112. S

BIOL 3310 Invertebrate Zoology 4 credits. General study of invertebrate animals with laboratory work on representatives of the invertebrate phyla. Field trips. PREREQ: BIOL 1101 and BIOL 1102. COREQ: BIOL 3310L. S

BIOL 3310L Invertebrate Zoology Lab 0 credit. S

BIOL3314 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. PREREQ: BIOL 1101 and BIOL 1102. COREQ: BIOL 3314L. F

BIOL3314L Vertebrate Anatomy Lab 0 credit. F

BIOL 3315 Introduction to Biometry 3 credits. Concepts of experimental design and microcomputer application of basic statistical techniques to analysis of biological data. PREREQ: BIOL 1101 and BIOL 1102. COREQ: BIOL 3315L. F, S

BIOL 3316 Biometry Laboratory 1 credit. Statistical analysis and presentation of data for the biological sciences. This course, which complements MATH 3350, focuses on manipulation, presentation, and analysis of data sets. COREQ: MATH 3350. F, AS

BIOL 3324 Developmental Biology 4 credits. Fundamental principles and concepts of embryological development. Selected model systems will be studied to illustrate basic concepts in development. BIOL 1101 and BIOL 1102. COREQ: BIOL 3324L. S

BIOL 3324L Developmental Biology Lab 0 credit. S

BIOL3337 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 2209 or permission of instructor. S

BIOL3358 Genetics 3 credits. Basic principles of heredity, variation, and gene expression among eukaryotes, prokaryotes, and viruses. PREREQ: BIOL 2206 or BIOL 2235. F, S

BIOL 4400 Oral Histology and Embryology 3 credits. The microanatomy and formative processes of the teeth and their surrounding structures. COREQ: BIOL 4400L. S

BIOL4400L Oral Histology and Embryology Lab 0 credit. S

BIOL 4404 Plant Physiology 4 credits. Study of plant physiological processes including water relations, mineral nutrition, photosynthesis, respiration, translocation of photosynthate, secondary compounds and phytohormones. PREREQ: BIOL 1101, BIOL 1102 and one year of college chemistry. COREQ: BIOL 4404L. AS

BIOL 4404 Plant Physiology Lab 0 credit. AS

BIOL4405 Plant Form and Function 3 credits. Integrated studies of anatomical and physiological adaptations of plants to their natural environment. Data collection and analysis will be emphasized. PREREQ: BIOL 1102. COREQ: BIOL 4405L. AF

BIOL 4405L Plant Form and Function Lab 0 credit. AF

BIOL 4406 Plant Diversity and Evolution 4 credits. Study of the reproduction, structure, development, evolution, and classification of the fungi, algae, bryophytes, and vascular plants. Lectures, laboratories. PREREQ: BIOL 1101 AND 1102. COREQ: BIOL 4406L. AF

BIOL 4406L Plant Diversity and Evolution Lab 0 credit. AF

BIOL 4408 Plant Ecology 3 credits. Major factors limiting plant growth and distribution with emphasis on adaptation and response at the individual, population, and community levels. PREREQ: BIOL 1101 and BIOL 1102. COREQ: BIOL 4408L. AF

BIOL 4408L Plant Ecology Lab 0 credit. AF

BIOL4411D Clinical Microbiology I3 credits. Study and identification of medically important bacteria, viruses, fungi, chlamydiae, rickettsiae, and parasites as applicable to laboratory and infection control settings. PREREQ: BIOL 2235 or BIOL 2221 or equivalent and permission of instructor or acceptance into CLS Program. F

BIOL4411E Clinical Microbiology II 3 credits. Advanced topics in clinical microbiology, including application of laboratory techniques to the identification and evaluation of medically important pathogens, and correlations with disease states. PREREQ: BIOL4411D, permission of instructor or acceptance into CLS Program; admitted to CLS Internship. F, S

BIOL 4411F Clinical Hematology 3 credits. Theoretical and applied aspects of clinical hematology and hemostasis with emphasis on recognition and correlation of abnormal laboratory observations with pathological conditions. Graduate students will prepare, conduct and evaluate case study sessions. PREREQ: Permission of instructor or acceptance into CLS Program. F

BIOL 4411G Critical Analysis of Laboratory Values 3 credits. Evaluation of clinical laboratory values with emphasis on advanced methods, specialized statistics, algorithm building, and clinical correlations. PREREQ: Permission of the instructor or acceptance into CLS Program. S

BIOL 4411I 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 4411V, permission of instructor, or acceptance into CLS Program; admitted to CLS Internship. F, S

BIOL 4411J Clinical Chemistry 3 credits. Theoretical and applied aspects of 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 4411K 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. S

BIOL 4411M 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

BIOL4411N 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 4411P 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 4411Q 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 4411S Laboratory Analysis and Management 3 credits. Advanced principals of current quality control, personnel, financial and regulatory issues, laboratory information systems, management and education. Student presentations will be required. Students taking the course for graduate credit will develop, complete and present a project. PREREQ: Permission of instructor or acceptance into CLS Program. F

BIOL 4411V Immunology and Transfusion Medicine I 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 4412 Systematic Botany 4 credits. Study of classification and evolution of flowering plants; techniques of phylogeny reconstruction based on molecular and morphological characters. Collection/identification of local flora. Field trips. PREREQ: BIOL 1101 and BIOL 1102. COREQ: BIOL 4412L. S

BIOL 4412L Systematic Botany Lab 0 credit. S

BIOL 4413 Biology Teaching Methods 3 credits. Designed to help biology teachers plan, teach and evaluate teaching activities. Includes practical experience in a diversity of methods used in science classrooms, and in resources that enhance professional development. Required for secondary teaching majors in biology. PREREQ: 16 credit hours of biology and EDUC 3302, or permission of instructor. F

BIOL 4415 Human Neurobiology 4 credits. Cellular-to-organismal structure and function of the human central nervous system (CNS), and CNS pathologies. PREREQ: permission of instructor. S

BIOL 4415L Human Neurobiology Lab 1 credit. Detailed examination of the gross anatomy and pathways of the human central nervous system. PREREQ: or permission of instructor. S

BIOL 4416 Population 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 2209. COREQ: BIOL 4416L. AF

BIOL 4416L Population and Community Ecology Lab 0 credit. AF

BIOL 4417 Organic Evolution 3 credits. An integrated study of evolution as a unifying concept in biology. An examination of patterns and processes that affect the origin and diversification of species through time. PREREQ: BIOL 3358. F, S

BIOL 4418 Ecological Topics 1 credit. Flexible use of seminars, lectures, and laboratory/field work dealing with current issues in ecology. Topic/emphasis varies. May be repeated for up to 3 credits. PREREQ: BIOL 2209 or permission of instructor. F, S

BIOL 4419 Mammalian Histology 4 credits. Study of animal tissues, including structural and functional characteristics of tissues and organs. PREREQ: BIOL 2206, or BIOL 3303, or BIOL 3301 and BIOL 3302. COREQ: BIOL 4419L. F

BIOL 4419L Mammalian Histology Lab 0 credit. F

BIOL 4420 Musculo-Skeletal Anatomy 2 credits. Study of human body structure emphasizing muscular system and its relationship to axial and appendicular skeleton. Focus is on extremities, thorax, and pelvis with applications toward normal, diseased and rehabilitative functions. PREREQ: BIOL 3301 and BIOL 3302. AS

BIOL 4423 General Parasitology 3 credits. Study of parasitic symbioses of animals, plants and other organisms focusing on concepts, principles, and consequences of such interactions and the coevolutionary processes by which they are created. PREREQ: BIOL 1101 and BIOL 1102. F

BIOL 4426 Herpetology 3 credits. The biology of amphibians and reptiles: lecture topics include evolutionary history, functional morphology, physiological ecology, biogeography, reproductive, and population ecology. Laboratories and field trips cover systematic, natural history, and collecting/sampling techniques. PREREQ: BIOL 2209. COREQ: BIOL 4426L. AS

BIOL 4426L Herpetology Lab 0 credit. AS

BIOL 4427 Ichthyology 3 credits. The biology of fishes: lecture topics include evolutionary history, functional morphology, physiological ecology, and biogeography. Laboratory and weekend field trips cover identification, natural history and collecting techniques. Emphasis on Idaho species. PREREQ: BIOL 2209. COREQ: BIOL 4427L. AF

BIOL 4427L Ichthyology Lab 0 credit. AF

BIOL 4428 Medical Parasitology and Entomology 3 credits. Study of animal parasites, with an emphasis on protists, helminths and arthropods affecting human health and welfare by their presence or indirectly via pathogens they transmit. PREREQ: BIOL 1101 and BIOL 1102. COREQ: BIOL 4428L. AF

BIOL 4428L Medical Parasitology and Entomology 0 credit. AF

BIOL 4429 Regional Anatomy and Histology 4 credits. Regional approach to gross human anatomy emphasizing the use of prosected materials and microscopic anatomy. Designed primarily for students in the Physician Assistant Program. PREREQ: BIOL 2301, BIOL 2302. COREQ: BIOL 4429L. F

BIOL 4429L Regional Anatomy and Histology Lab 0 credit. F

BIOL 4431 General Entomology 3 credits. Structure, development, classification, and life histories of insects, including ecological, economic and management considerations. An insect collection may be required. Field trips. PREREQ: BIOL 1101 and BIOL 1102. COREQ: BIOL 4431L. AF

BIOL 4431L General Entomology Lab 0 credit. AF

BIOL 4432 Biochemistry 3 credits. Comprehensive discussion/presentation of structure, function and metabolism of biological macromolecules and their constituents, including energetics, regulation, and molecular biology, with emphasis on critical analysis of biochemical issues. PREREQ: BIOL 1101 and CHEM 2301. F, S

BIOL 4433 Microbial Physiology 3 credits. Comparative physiology of microorganisms, including structure/function, metabolic diversity, enzymatic mechanisms of microbial metabolism, and physiology of extreme organisms. May be repeated upon completion of BIOL 4433L. PREREQ: BIOL 2235 and BIOL 2235L; BIOL 4432 or BIOL 4445. F

BIOL 4433L Microbial Physiology Laboratory 1 credit. Laboratory exercises in comparative physiology of microorganisms. COREQ: BIOL 4433. F

BIOL 4434 Microbial Diversity 3 credits. Factors influencing the enrichment, cultivation, and isolation of prokaryotes from various metabolic groups and environments. May be repeated upon completion of BIOL 4434L. PREREQ: BIOL 2235, BIOL 2235L, BIOL 4433, and BIOL 4433L; BIOL 4432 or BIOL 4445. S

BIOL 4434L Microbial Diversity Lab 1 credit. Enrichment, cultivation and isolation of prokaryotes from various metabolic groups and environments. COREQ: BIOL 4434. S

BIOL 4435 Vertebrate Paleontology 4 credits. Phylogenetic history of the vertebrates outlined in the light of morphology, classification, evolution, paleoecology, and the significance of fossils. Field trips. Cross-listed as GEOL 4435. PREREQ: GEOL 4431 or BIOL 3314 or equivalent. F

BIOL 4437 Experimental Biochemistry 1 credit. Laboratory course including both qualitative and quantitative experiments. Cross-listed as CHEM 4438. PREREQ or COREQ: BIOL 4432 or BIOL/CHEM 4445. F, S

BIOL 4438 Ornithology 3 credits. Study of the origin, evolution, structure, habits, adaptations, distribution, and classification of birds. Field trips. PREREQ: BIOL 1101 and BIOL 1102. S

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

BIOL 4440 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 4450. COREQ: BIOL 4440L. F

BIOL 4440L Human Gross Anatomy Lab 0 credit. F

BIOL 4441 Mammalogy 3 credits. General study of mammals including classification, identification, habits, ecology, economics, and techniques of study, with emphasis on North American forms. Field trips. PREREQ: BIOL 2209. COREQ: BIOL 4441L. AF

BIOL 4441L Mammalogy Lab 0 credit. AF

BIOL 4442 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 2209. AF

BIOL 4443 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 3303. AS

BIOL 4444 Cell and Molecular Biology 3 credits. Fundamental principles of cell structure, function and molecular biology: DNA replication, repair, and recombination, transcriptional and post-transcriptional regulation of gene expression, RNA metabolism, protein synthesis, targeting and turnover, post-translational modifications, signal transduction, regulation of the cell division cycle, and molecular genetics of development. May be repeated upon completion of BIOL 4444L. PREREQ: BIOL 3358 and CHEM 3302. F

BIOL 4444L Cell and Molecular Biology Lab 1 credit. Laboratory techniques in cell and molecular biology, including cloning, PCR and DNA sequencing. COREQ: BIOL 4444. F

BIOL 4445 Biochemistry I 3 credits. Introduction to basic aspects of biochemical systems, including fundamental chemical and physical properties of biomolecules. Enzymology, including allosterism, metabolic regulation, bioenergetics, and carbohydrate metabolism. Cross-listed as CHEM 4445. PREREQ: BIOL 1101 and CHEM 3301. F

BIOL 4446 Selected Topics in Physiology 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 4447 Biochemistry II 3 credits. Functional continuation of 4445. Lipid, amino acid,

and nucleotide metabolism. Emphasis is on regulation of metabolism, metabolic dysfunctions, biochemical mechanisms of hormone action, biochemical genetics, protein synthesis, and metabolic consequences of genetic defects. Cross-listed as CHEM 4447. PREREQ: BIOL/CHEM 4445. S

BIOL 4448 Advanced Experimental Biochemistry 2 credits. Advanced laboratory projects designed to emphasize techniques of qualitative and quantitative biochemical analysis. Cross-listed as CHEM 4448. PREREQ: BIOL 4437/CHEM 4438. COREQ: BIOL/CHEM 4447. S

BIOL 4449 Human Physiology I 4 credits. First of a two semester sequence. Physiology of the nervous, muscular, and circulatory systems. Cross-listed as PHAR 9949. PREREQ: BIOL 1101. F

BIOL 4450 Head and Neck Anatomy 3 credits. Comprehensive presentation of the anatomy of the head and neck as it applies to the practice of dentistry. COREQ: BIOL 44450L. S

BIOL 4450L Head and Neck Anatomy Lab 0 credit. S

BIOL 4451 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 2221 and BIOL 2221L, or BIOL 2235 and BIOL 2235L. F

BIOL 4451L Immunology Laboratory 1 credit. Selected laboratory experiments to accompany Immunology BIOL 4451. PREREQ or COREQ: BIOL 4451. Open to non-majors by special permission. F

BIOL 4454 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 4451 and permission of instructor. F

BIOL 4455 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 2221 and BIOL 2221L, or BIOL 2235 and BIOL 2235L. S

BIOL 4455L 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 4455. S

BIOL 4456 Human Physiology II 4 credits. Physiology of the respiratory, renal, gastrointestinal, and endocrine systems. Includes studies of acid-base balance. Cross-listed as PHAR 9956. PREREQ: BIOL 4449 or equivalent. S

BIOL 4459 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 2209, BIOL 3315, BIOL 4427 recommended. COREQ: BIOL 4459L. AF

BIOL 4459L Fish Ecology Laboratory 0 credits. Assignments to apply principles from BIOL 4459. COREQ: BIOL 4459. AF

BIOL 4460 Neuroscience 4 credits. Comprehensive presentation of the anatomy of the central nervous system, the brain and spinal cord. Combined lecture and laboratory demonstration. PREREQ: permission of instructor. S

BIOL 4461 Advanced Genetics 3 credits. Detailed and critical consideration of selected genetic topics with emphasis on recent advances. PREREQ: BIOL 3358. S

BIOL 4462 Freshwater Ecology 3 credits. Study of the interaction of physical and biotic factors in aquatic ecosystems. Field trips. PREREQ: BIOL 2209. COREQ: BIOL 4462L. AF

BIOL 4462L Freshwater Ecology Lab 0 credit. AF

BIOL 4463 Human Pathophysiology 4 credits. The study of basic process underlying diseases, with an emphasis on correlating anatomical, functional, and biochemical alterations with clinical manifestations. PREREQ: BIOL 3301 and BIOL 3302, or permission of instructor. COREQ: BIOL 4463L. F, W

BIOL 4463 Human Pathophysiology Lab 0 credit.

BIOL 4464 Lectures in Human Physiology 4 credits. Physiology of the nervous, muscular, circulatory, respiratory, and excretory systems. PREREQ: BIOL 3301, BIOL 3302, and one year of college chemistry. F

BIOL 4466 Medical Mycology 3 credits. Lecture/laboratory course addressing medically important fungi. Taxonomy, clinical disease, pathogenesis, immunological diagnosis and laboratory identification of contaminants, opportunists, superficial, cutaneous, subcutaneous and systemic mycoses. PREREQ: BIOL 2221 OR BIOL 2235. S

BIOL 4469 Special Topics in Microbiology 1-4 credits. Study of selected topics in microbiology. Course contents will vary with topics selected. May be repeated with departmental approval for non-repetitive course content. PREREQ: Permission of instructor. F, S

BIOL 4470 Cross-Sectional Anatomy 2 credits. Applied regional anatomy as viewed in sectional planes, emphasizing topographic relationships of organs and surface anatomy, with interpretation of correlated CT and MRI imaging. PREREQ: BIOL 3301 and BIOL 3302. S

BIOL 4471 Fundamentals of Biological Imaging 3 credits. Introduction to optical microscopy with an emphasis on optical image formation, documentation, interpretation and digital image analysis relevant to experimental applications in the biological sciences. Lecture and laboratory with independent research component. ES

BIOL 4472 Clinical Physiology 2 credits. A survey of selected organ systems with clinical correlations of pathophysiological states. PREREQ: BIOL 4464. S

BIOL 4473 Applied and Environmental Microbiology 3 credits. Concepts in applied microbiology and microbial ecology, including fermentation, biotechnology, and ecophysiology. May be repeated upon completion of BIOL 4473L. PREREQ: BIOL 2235, 2235L. BIOL 4473L. AS

BIOL 4473L Applied Environmental Microbiology Lab 1 credit. Laboratory exercises in applied and environmental microbiology. COREQ: BIOL 4473. AS

BIOL 4474 Human Anatomy (Occupational Therapy/Physical Therapy) 5 credits. Applied regional anatomy emphasizing the development, histology and gross anatomy of the musculoskeletal, peripheral nervous, and cardiopulmonary systems. Includes laboratory with cadaver dissection. PREREQ: Permission of instructor. COREQ: BIOL 4474L. F

BIOL 4474L OT/PT Human Anatomy Lab 0 credit. F

BIOL 4475 General Virology 3 credits. Introduction to the general principles of virology through consideration of structure, genetics, replication and biochemistry of animal and bacterial viruses. PREREQ: completion of 90 credits. F

BIOL 4476 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 4462 or permission of instructor. COREQ: BIOL 4476L. AS

BIOL 4476L Ecology of Water Pollution Lab 0 credit. AS

BIOL 4477 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 4475. S

BIOL 4478 Animal Virology Laboratory 1 credit. Introduces tissue culture methods and other techniques employed in the study of animal viruses. PREREQ OR COREQ: BIOL 4475. F

BIOL 4479 Survey of Electron Microscopy 2 credits. Introduction to the potentialities, theory, techniques, and limitations of electron microscopy. The field will be surveyed as a whole, but primary emphasis will be on biological applications. PREREQ: permission of instructor. F

BIOL 4481 Independent Problems 1-4 credits. Individual problems will be assigned to students on the basis of interest and previous preparation. May be repeated. PREREQ: A minimum of two courses in biological sciences and permission of the instructor. F

BIOL 4482 Independent Problems 1-4 credits. Individual problems will be assigned to students on the basis of interest and previous preparation. May be repeated. PREREQ: A minimum of two courses in biological sciences and permission of the instructor. S

BIOL 4486 Human Systemic Physiology 5 credits. One-semester lecture/laboratory human physiology course emphasizing the function and regulation of the muscular, skeletal, circulatory, respiratory, urinary, reproductive, and immune systems. PREREQ: CHEM 1111, CHEM 1111L, CHEM 1112, and CHEM 1112L; BIOL 3301 and BIOL 3302 or equivalent. COREQ: BIOL 4486L. F

BIOL 4486L Human Systemic Physiology Lab 0 credit. F

BIOL 4488 Advanced Radiobiology 3 credits. An advanced-level class covering aspects of molecular radiobiology, teratogenesis, oncogenesis, and acute radiation illnesses. It also considers nonstochastic radiation effects and the epidemiology of radiation exposures. Cross-listed as PHYS 4488. PREREQ: permission of instructor. AF

BIOL 4489 Field Ecology 4 credits. An intensive field study of at least one biogeographical region to increase student's knowledge of, and skill with, field sampling techniques, field-study design, data collection and analysis, and report preparation. Lectures, laboratories. PREREQ: BIOL 2209 and a course in statistics. S

BIOL 4491 Seminar 1 credit. Review of current research and literature in the general fields of biological science. PREREQ: Senior standing or permission of department. F, S, Su

BIOL 4492 Seminar 1 credit. Review of current research and literature in the general fields of biological science. PREREQ: Senior standing or permission of department. F, S, Su

BIOL 4493 Senior Thesis 1-4 credits. This is a course supervised by a committee of at least two faculty members, approved by the department chair. The thesis topic may be interdisciplinary, with four credits conferred by one or more departments. PREREQ: Senior status; permission of department. F, S

BIOL 4494 Seminar in Microbiology 1 credit. Presentation of written and oral review of library research in microbiology and molecular biology by students for discussion with faculty and fellow students. May be repeated for up to 2 credits. F, S, Su

BIOL 4495 Ethology 3 credits. Behavior of animals and the evolutionary mechanisms which dictate behavioral patterns. PREREQ: Upper division or graduate status. AF

BIOL 4496 Ecology Senior Seminar 1 credit. Review of current research in ecology and related areas. Attendance at departmental seminars and written summaries of the seminars required. PREREQ: Senior status and Ecology major or permission of department. F, S

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

BIOL 4498 Seminar in Biochemistry 1 credit. Review of current research and literature in the field of biochemistry. Cross-listed as CHEM 4498. PREREQ: senior standing or permission of department. F, S

Department of Chemistry

Chair and Professor: Holman (Organic)
Professors: Castle (Organic), De Jesus (Organic), Kalivas (Analytical), Rodriguez (Physical), J. Rosentreter (Analytical)

Associate Professors: Goss (Physical), Holland (Inorganic), Pak (Organic)
Assistant Professors: Bennett (Inorganic), Davis (Organic)

Associate Lecturers: Omar, R. Rosentreter
Assistant Lecturer: Jolley, Quarder
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 can be admitted into the program at the beginning of their junior year.

Course work to be used as a prerequisite for a chemistry class must have been taken within the most recent 5 year period, unless the student obtains permission of the instructor. 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 intervening time, or that the student has been able

to remain current in the topics covered in the course. Evidence that the older course work is still appropriate must be approved by the department chairperson.

Bachelor of Arts in Chemistry

As 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

CHEM 1111, 1111L	General Chemistry I, and Lab	5 cr
CHEM 1112, 1112L	General Chemistry II, and Lab	4 cr
MATH 1170	Calculus I	4 cr
	OR	
MATH 1160	Applied Calculus	3 cr

Second Year

CHEM 2211	Inorganic Chemistry I	3 cr
CHEM 2213	Inorganic Chemistry I Lab	1 cr
CHEM 2232	Quantitative Analysis	2 cr
CHEM 2234	Quantitative Analysis Lab	2 cr
CHEM 3301	Organic Chemistry I	3 cr
CHEM 3302	Organic Chemistry II	3 cr
CHEM 3303	Organic Chemistry Lab I	1 cr
CHEM 3304	Organic Chemistry Lab II	1 cr
CHEM 3391	Seminar	1 cr
PHYS 1111, 1112, 1113, 1114	General Physics I and II and Labs	8 cr
	OR	
PHYS 2211-2212, 2213, 2214	Engineering Physics	10 cr

Third Year

BIOL 4432	Biochemistry	3 cr
	OR	
BIOL 4445, 4447	Biochemistry I and II	6 cr
CHEM 3341, 3342	Topics in Physical Chemistry	6 cr
	OR	
CHEM 3351-3352	Physical Chemistry	6 cr

Plus 8 additional upper-division (3000-4000 level) credits in chemistry, approved by the department and not to include CHEM 4491. No more than 2 credits of CHEM 3311 and 2 credits in 4481-4482 may be used to satisfy these electives. If BIOL 4445 and 4447 sequence is taken, 3 credits may be used to satisfy elective credits. No more than 40 credits in chemistry will count toward graduation in this program.

Students pursuing a Bachelor of Arts in Chemistry should complete ENGL 1101 and COMM 1101 (Goal 2 of the General Education Requirements) during the freshman year and ENGL 1102 (Goal 1) should be passed by, or during, the sophomore year. Goal 3 should be fulfilled by MATH 1160 or 1170 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 profession 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.

BIOL 1101, 1101L	Biology I, and Lab	4 cr
BIOL 1102, 1102L	Biology II, and Lab	4 cr
BIOL 2235, 2235L	General Microbiology	4 cr
BIOL 3358	Genetics	3 cr
BIOL 4437/CHEM 4438	Experimental Biochemistry	1 cr
BIOL 4444, 4444L	Cell and Molecular Biology, and Lab	5 cr
BIOL/CHEM 4445	Biochemistry I	3 cr
BIOL/CHEM 4447	Biochemistry II	3 cr
BIOL/CHEM 4448	Advanced Experimental Biochemistry	2 cr
BIOL/CHEM 4498	Seminar in Biochemistry	1 cr
CHEM 1111, 1111L	General Chemistry I, and Lab	5 cr
CHEM 1112, 1112L	General Chemistry II, and Lab	4 cr
CHEM 2232, 2234	Quantitative Analysis, and Lab	4 cr
CHEM 3301, 3303	Organic Chemistry I, and Lab	4 cr
CHEM 3302, 3304	Organic Chemistry II, and Lab	4 cr
CHEM 3341**	Topics in Physical Chemistry I	3 cr

CHEM 3342**	Topics in Physical Chemistry II	3 cr
MATH 1170	Calculus I	4 cr
MATH 1175	Calculus II	4 cr
PHYS 1111, 1113***	General Physics I, and Lab	4 cr
PHYS 1112, 1114***	General Physics II, and Lab	4 cr
	Subtotal:	73 cr
	General Education Requirements	24 cr
	TOTAL:	97 cr

*Students must pass core courses with a grade of C- or better.

**May elect to take CHEM 3351 and 3352 instead of CHEM 3341 and 3342.

***PHYS 2211, 2212, 2213, 2214 may be taken to fulfill the Physics requirement in the core curriculum.

Track 1: Biological Chemistry (9 cr)

CHEM 2211, 2213	Inorganic Chemistry, and Lab	3 cr
CHEM 3331, 3334	Instrumental Analysis, and Lab	4 cr
CHEM 4491	Seminar	1 cr

Track 2: Biochemistry and Molecular Biology (8 cr)

BIOL 3303, 3303L; 4404, 4404L; or 4433, 4433L	Animal, or Plant, or Microbial Physiology, and Lab	4 cr
BIOL 4461	Advanced Genetics	3 cr
BIOL 4492	Seminar	1 cr

Track 3: Physiological Biochemistry (8 cr)

BIOL 3302, 3302L	Anatomy and Physiology, and Lab	4 cr
PSCI 3301	Introduction to Pharmacology	3 cr
BIOL 4492	Seminar	1 cr

Electives

Students must take a minimum of 12 credits, with at least 3 credits in Biological Sciences (BIOL), 3 credits in Chemistry (CHEM), and 3 credits in Biomedical and Pharmaceutical Sciences (PSCI). Advanced or experimental courses are acceptable. These courses satisfy the electives requirement only if they are not required for a specific Biochemistry track.

BIOL 3301, 3301L	Anatomy and Physiology, and Lab	4 cr
BIOL 3302, 3302L	Anatomy and Physiology, and Lab	4 cr
BIOL 3303, 3303L	Principles of Animal Physiology, and Lab	4 cr
BIOL 3324, 3324L	Developmental Biology, and Lab	4 cr
BIOL 4404, 4404L	Plant Physiology, and Lab	4 cr
BIOL 4411K	Molecular Biology Laboratory Methods	3 cr
BIOL 4415, 4415L	Human Neurobiology, and Lab	5 cr
BIOL 4417	Organic Evolution	3 cr
BIOL 4433, 4433L	Microbial Physiology, and Lab	4 cr
BIOL 4434, 4434L	Microbial Diversity, and Lab	4 cr
BIOL 4443	Endocrinology	3 cr
BIOL 4449, 4449R / PHAR 9949, 9949R	Human Physiology, and Recitation	4 cr
BIOL 4451, 4451L	Immunology, and Lab	4 cr
BIOL 4456, 4456R / PHAR 9956, 9956R	Human Physiology II, and Recitation	4 cr
BIOL 4461	Advanced Genetics	3 cr
BIOL 4463, 4463L	Human Pathophysiology, and Lab	4 cr
BIOL 4473, 4473L	Applied and Environmental Microbiology, and Lab	4 cr
BIOL 4475	General Virology	3 cr
BIOL 4477 or 4478	Bacterial or Animal Virology Laboratory	1 cr
BIOL 4481 and/or 4482	Independent Problems (max 2 credits)	2 cr
BIOL 4488	Advanced Radiobiology	3 cr

CHEM 2211, 2213 Inorganic Chemistry, and Lab 4 cr
CHEM 3311 and/or 3312 Introduction to Research
(max) 2 cr

CHEM 3331, 3334 Instrumental Analysis, and Lab 4 cr
CHEM 3365, 3366 Synthetic Methods, and Lab 4 cr
CHEM 4407* Inorganic Chemistry II 2 cr
CHEM 4433, 4437 Environmental Chemistry,
and Lab 3 cr

CHEM 4453** Modern Experimental
Physical Chemistry** 3 cr

CHEM 4481 and/or 4482 Independent Problems
(max) 2 cr

MATH 2240 Linear Algebra 3 cr
MATH 2275 Calculus III 4 cr
MATH 3360 Differential Equations 3 cr
PSCI 2205 Drugs in Society 2 cr
PSCI 3301 Introduction to Pharmacology 3 cr
PSCI 3308 Drug Discovery 3 cr
PSCI 3353 Introduction to Methods in
Pharmaceutical Sciences 2 cr

PSCI 3368 Introduction to Toxicology 3 cr
PSCI 4402 Immunopharmacology 2 cr
PSCI 4403 Infectious Diseases
and Natural Products 3 cr

PSCI 4407 Pharmacogenomics 2 cr
PSCI 4408 Medicinal Chemistry 3 cr
PSCI 4431 Cancer Biology 3 cr
PSCI 4434 Pharmacokinetics 3 cr
PSCI 4440 Fundamentals of Nanoscience 3 cr

*Prerequisites include CHEM 2211, 2213, 3351, and
3352.

**Prerequisites include CHEM 3334, 3351, and 3352.

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 1111, 1111L General Chemistry I, and Lab 5 cr
CHEM 1112, 1112L General Chemistry II, and Lab 4 cr
MATH 1170 Calculus I 4 cr
MATH 1175 Calculus II 4 cr

Second Year

CHEM 2211 Inorganic Chemistry I 3 cr
CHEM 2213 Inorganic Chemistry I Lab 1 cr
CHEM 2232 Quantitative Analysis 2 cr
CHEM 2234 Quantitative Analysis Lab 2 cr
CHEM 3301 Organic Chemistry I 3 cr
CHEM 3302 Organic Chemistry II 3 cr
CHEM 3303 Organic Chemistry Lab I 1 cr
CHEM 3304 Organic Chemistry Lab II 1 cr
PHYS 2211-2212 Engineering Physics 8 cr
PHYS 2213-2214 Engineering Physics Lab 2 cr

Third Year

CHEM 3331 Instrumental Analysis 2 cr
CHEM 3334 Instrumental Analysis Lab 2 cr
CHEM 3351-3352 Physical Chemistry 6 cr

Fourth Year

BIOL 4432 Biochemistry 3 cr
CHEM 3365 Synthetic Methods 2 cr
CHEM 3366 Synthetic Methods Lab 2 cr

CHEM 4453 Modern Experimental
Physical Chemistry 2 cr
CHEM 4481-4482 Independent Problems 3 cr
CHEM 4491 Seminar 1 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 1111, 1111L General Chemistry I, and Lab 5 cr
CHEM 1112, 1112L General Chemistry II, and Lab 4 cr
CHEM 2211 Inorganic Chemistry I 3 cr
CHEM 2213 Inorganic Chemistry I Lab 1 cr
CHEM 2232 Quantitative Analysis 2 cr
CHEM 2234 Quantitative Analysis
Laboratory 2 cr
CHEM 3301-3302 Organic Chemistry I and II 6 cr
CHEM 3303-3304 Organic Chemistry
Laboratory I and II 2 cr
MATH 1170 Calculus I 4 cr
MATH 1175 Calculus II 4 cr
PHYS 2212-212 Engineering Physics 8 cr
PHYS 2213-2214 Engineering Physics
Laboratory 2 cr

Application for admission must be made to the Chemistry Department.

Overview of B.S./M.S. Program

Year 1 in the B.S./M.S. Program (Junior Year): During the first semester each student is expected to select three faculty members to serve as an advisory committee subject to the approval of the Department Chair. In the second semester, each student will form a planned program of study with a research advisor, write a research overview of a chosen project, and apply and be admitted to the Graduate School. The student must score at or above the 35th percentile in two areas of aptitude (Verbal, Quantitative, and Analytical) of the Graduate Record Exam. The student is expected to begin his/her research no later than the beginning of the summer semester. Thereafter, individual sections of the research paper will be required as the student progresses through the program.

Year 2 in the B.S./M.S. Program (Senior Year) and year 3 (Graduate standing): To remain in the program a student must maintain a minimum GPA of 3.0 from date of admission and must earn a grade of C- or better in all 6000-level courses. The students' committees will assess student standing annually, and will recommend that students who are not making adequate progress discontinue

the program. Students are required to have completed all general education requirements by the end of their second year in the combined B.S./M.S. program.

Suggested Schedule in B.S./M.S. Program

First Year (Junior year)

Fall/Spring

CHEM 3331* Instrumental Analysis 2 cr
CHEM 3334* Instrumental Analysis
Laboratory 2 cr
CHEM 3351* Physical Chemistry 3 cr
CHEM 3352* Physical Chemistry 3 cr
MATH 3360 Differential Equations 3 cr
Electives 11 cr

TOTAL: 24 cr

* Must be completed by the end of the junior year.

Summer

CHEM 4485 Senior Research 6 cr

Second Year (Senior year)

Fall/Spring

BIOL 4432 Biochemistry 3 cr
CHEM 3365 Synthetic Methods 2 cr
CHEM 3366 Synthetic Methods Lab 2 cr
CHEM 4407 Inorganic Chemistry II 2 cr
CHEM 4453 Modern Experimental
Physical Chemistry 2 cr
CHEM 4485 Senior Research 2 cr
CHEM 4491 Seminar 1 cr
CHEM 6609 Advanced Inorganic
Chemistry 3 cr
CHEM 6655 Advanced Physical Chemistry 3 cr
Electives 8 cr

TOTAL: 28 cr

Summer

CHEM 6635 Master's Research 6 cr

Third Year (Graduate standing)

Fall/Spring

CHEM 6630 Advanced Analytical
Chemistry 3 cr
CHEM 6671 Advanced Organic Chemistry 3 cr
CHEM 6601 Seminar 2 cr
CHEM 6635 Master's Research 4 cr
Electives 13 cr

TOTAL: 25 cr

Teaching Major in Chemistry

Students wishing to pursue a Teaching Major in Chemistry should make an appointment to meet with the Department Chair.

Minor in Chemistry

Required courses:

CHEM 1111, 1111L General Chemistry I, and Lab 5 cr
CHEM 1112, 1112L General Chemistry II, and Lab 4 cr
CHEM 2211 Inorganic Chemistry I 3 cr
CHEM 2213 Inorganic Chemistry I Lab 1 cr
CHEM 2232 Quantitative Analysis 2 cr
CHEM 2234 Quantitative Analysis Lab 2 cr
CHEM 3301 Organic Chemistry I 3 cr
CHEM 3302 Organic Chemistry II 3 cr
CHEM 3303 Organic Chemistry Lab I 1 cr
CHEM 3304 Organic Chemistry Lab II 1 cr

Approved upper-division electives in chemistry (excluding CHEM 4400, CHEM 4481-4482, and CHEM 4491) 4 cr
TOTAL: 29 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*		variable
CHEM 1102	Introduction to Organic and Biochemistry	3 cr
CHEM 1103	Introduction to General, Organic and Biochemistry Lab	1 cr
CHEM 1111, 1111L	General Chemistry I, and Lab	5 cr
CHEM 1112, 1112L	General Chemistry II, and Lab	4 cr
CHEM 2232	Quantitative Analysis	2 cr
CHEM 2234	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 1100 Architecture of Matter 4 credits. How scientific thought has produced chemical models of the structure of the material world, and the ethical and social consequences of its applications. Recommended for students not majoring in the natural sciences. Satisfies Goal 5 of the General Education Requirements. S

CHEM 1101 Introduction to General Chemistry 3 credits. Atomic structure, chemical calculations, solutions, acid-base reactions and equilibrium. May not be used as a prerequisite to other courses in chemistry except CHEM 1102. PREREQ: MATH 1108 or equivalent. F, S

CHEM 1102 Introduction to Organic and Biochemistry 3 credits. Descriptive organic and biochemistry with emphasis on organic compounds of biological importance. May not be used as a prerequisite to other courses in chemistry. PREREQ: CHEM 1101 or CHEM 1111 and CHEM 1111L. COREQ: CHEM 1103. F, S

CHEM 1103 Introduction to General, Organic and Biochemistry Laboratory 1 credit. Laboratory course introducing fundamental measurement techniques, methods and materials used in general, organic and biochemistry. PREREQ: CHEM 1101 or CHEM 1111 and CHEM 1111L. COREQ: CHEM 1102. F, S

CHEM 1111 General Chemistry I 4 credits. Introductory course for students in scientific and technical fields; structure and reactivity of elements and compounds, stoichiometry, states of matter, solutions, and chemical periodicity. May be repeated upon completion of CHEM 1111L. PREREQ: MATH 1143 or MATH 1147 or equivalent. F, S

CHEM 1111L General Chemistry I Lab 1 credit. Laboratory course to accompany General Chemistry I. PREREQ OR COREQ: CHEM 1111. F, S

CHEM 1112 General Chemistry II 3 credits. Introduction to kinetics, equilibrium, electrochemistry, and nuclear chemistry. May be repeated upon completion of CHEM 1112L. PREREQ: CHEM 1111 and CHEM 1111L or equivalent and MATH 1143 or MATH 1147 or equivalent. F, S

CHEM 1112L General Chemistry II Lab 1 credit. Laboratory course to accompany General Chemistry II. PREREQ OR COREQ: CHEM 1112. F, S

CHEM 2211 Inorganic Chemistry I 3 credits. An introduction to the chemistry of the elements, including: molecular and solid-state structure, aqueous chemistry (acid/base, solubility, and redox phenomena), and coordination chemistry (ligand field theory, and reaction mechanisms). Selected topics in materials, bioinorganic, and/or environmental inorganic chemistry will be surveyed. PREREQ: CHEM 1112 and CHEM 1112L or permission of instructor. COREQ: CHEM 2213. F

CHEM 2213 Inorganic Chemistry I Laboratory 1 credit. Qualitative and quantitative inorganic chemistry, including: precipitation, acid/base and reduction/oxidation reactions in aqueous media, preparation and isolation of inorganic compounds, characterization techniques for inorganic compounds (e.g. magnetic susceptibility measurements, electrochemistry, UV-vis). COREQ: CHEM 2211 or permission of instructor. F

CHEM 2232 Quantitative Analysis 2 credits. Theoretical foundations of quantitative analysis including an introduction to statistical analysis of chemical data generated from gravimetric, volumetric and colorimetric methods. PREREQ: CHEM 1112, CHEM 1112L and MATH 1160 or MATH 1170. S

CHEM 2234 Quantitative Analysis Laboratory 2 credits. Laboratory experiments in gravimetric, volumetric, and colorimetric analysis. PREREQ: CHEM 1112 and CHEM 1112L. COREQ: CHEM 2232 or permission of instructor. S

CHEM 3301 Organic Chemistry I 3 credits. The fundamentals of organic chemistry are examined through nomenclature, structure, physical and chemical properties, reaction mechanisms, spectroscopy and principal synthetic methods. PREREQ: CHEM 1112 and CHEM 1112L or permission of instructor. F

CHEM 3302 Organic Chemistry II 3 credits. A continuation of CHEM 301. The further study of the preparation, reactions, properties, reaction mechanisms and spectroscopy of organic compounds. PREREQ: CHEM 3301 or permission of instructor. S

CHEM 3303 Organic Chemistry Laboratory I 1 credit. Introductory laboratory work in organic chemistry. Study and development of elementary techniques and their application to the preparation, isolation and characterization of simple organic compounds. COREQ: CHEM 3301 or permission of instructor. F

CHEM 3304 Organic Chemistry Laboratory II 1 credit. Further experience in the fundamental operations of organic chemistry laboratory work including the preparation and analysis of typical compounds. PREREQ:

CHEM 3303. COREQ: CHEM 3302 or permission of instructor. S

CHEM 3311-3312 Introduction to Research 1-2 credits each. Directed library and laboratory research. Courses may be repeated for up to 6 credits. F, S

CHEM 3331 Instrumental Analysis 2 credits. Advanced quantitative analysis dealing chiefly with quantitative applications of instrumental methods. PREREQ: CHEM 2232 and CHEM 2234 or permission of instructor. F

CHEM 3334 Instrumental Analysis Laboratory 2 credits. Laboratory course giving experience in fundamental operations of modern instrumental methods of analysis. PREREQ: CHEM 2234 and CHEM 3331 or permission of instructor. S

CHEM 3341 Topics in Physical Chemistry 3 credits. Topics in physical chemistry with application to biological systems are covered. Molecular structure, thermodynamics of gases and solutions, reaction rates and mechanisms, basic quantum mechanics, and spectroscopic principles are covered in this first course of a two semester sequence. PREREQ: CHEM 1112 and CHEM 1112L, MATH 1160 or MATH 1170, PHYS 1112 or PHYS 2212, or permission of instructor. F, S

CHEM 3342 Topics in Physical Chemistry 3 credits. Topics in physical chemistry with application to biological systems are covered. Molecular structure, thermodynamics of gases and solutions, reaction rates and mechanisms, basic quantum mechanics, and spectroscopic principles are covered in this two semester sequence. PREREQ: CHEM 3341, or permission of instructor. F, S

CHEM 3351 Physical Chemistry 3 credits. The fundamental principles of physical chemistry; thermodynamics, reaction kinetics, molecular structure, quantum theory, spectroscopy, and solution chemistry. PREREQ: CHEM 1112, CHEM 1112L, MATH 1175, and PHYS 2212, or permission of instructor. F

CHEM 3352 Physical Chemistry 3 credits. The fundamental principles of physical chemistry; thermodynamics, reaction kinetics, molecular structure, quantum theory, spectroscopy, and solution chemistry. PREREQ: CHEM 3351. S

CHEM 3365 Synthetic Methods 2 credits. Practical aspects of chemical synthesis: preparation, purification, and spectral interpretation for organic and inorganic molecules. PREREQ: CHEM 2111 and CHEM 2304. F

CHEM 3366 Synthetic Methods Laboratory 2 credits. Advanced laboratory methods for preparation of organic and inorganic molecules: synthetic techniques, air-sensitive methods, purification techniques, and characterization methods. PREREQ: CHEM 3365. S

CHEM 3391 Seminar 1 credit. A formal introduction to scientific presentations including a short student presentation on selected library or laboratory research. PREREQ: CHEM 3301, 3303 or permission of instructor. R1

CHEM 4400 Practicum in Physical Science 2 credits. Practical problems associated with equipping, setting up and operating laboratories in chemistry. PREREQ: permission of department Chair. D

CHEM 4407 Inorganic Chemistry II 2 credits. Structure and reactivity of inorganic compounds including coordination compounds; acid-base chemistry and nonaqueous solvent systems; organometallic chemistry and other special topics of current interest. PREREQ: CHEM 2211 and CHEM 3352, or permission of instructor. F

CHEM 4433 Environmental Chemistry 2 credits. Application of chemical principles and calculations to investigate environmental issues. Natural systems, environmental degradation and protection, and the methodology of chemical detection and monitoring. PREREQ: CHEM 2232 and CHEM 2234 or permission of instructor. F

CHEM 4437 Environmental Chemistry Laboratory 1 credit. Utilizes both structured and self-designed field and classroom experiments to emphasize principles of environmental chemistry. COREQ: CHEM 4433 or permission of instructor. F

CHEM 4438 Experimental Biochemistry 1 credit. Laboratory course including both qualitative and quantitative experiments. Cross-listed as BIOL 4437. PREREQ OR COREQ: BIOL 4432 or BIOL/CHEM 4445. F, S

CHEM 4445 Biochemistry I 3 credits. Introduction to basic aspects of biochemical systems, including fundamental chemical and physical properties of biomolecules. Enzymology, including allosterism, metabolic regulation, bioenergetics, and carbohydrate metabolism. Cross-listed as BIOL 4445. PREREQ: BIOL 1101 and CHEM 3301. F

CHEM 4447 Biochemistry II 3 credits. Functional continuation of 4445. Lipid, amino acid, and nucleotide metabolism. Emphasis is on regulation of metabolism, metabolic dysfunctions, biochemical mechanisms of hormone action, biochemical genetics, protein synthesis, and metabolic consequences of genetic defects. Cross-listed as BIOL 4447. PREREQ: BIOL/CHEM 4445. S

CHEM 4448 Advanced Experimental Biochemistry 2 credits. Advanced laboratory projects designed to emphasize techniques of qualitative and quantitative biochemical analysis. Cross-listed as BIOL 4448. PREREQ: BIOL 4437/CHEM 4438. COREQ: BIOL 4447. S

CHEM 4453 Modern Experimental Physical Chemistry 2 credits. Magnetic, optical and electrical properties of materials, calorimetry, voltammetry, optical and laser spectroscopic techniques. PREREQ: CHEM 3334 and CHEM 3352. F

CHEM 4481 Independent Problems in Chemistry 1-4 credits. Directed library and laboratory research. Courses 4481 and 4482 may be repeated for up to 6 credits. PREREQ: CHEM 3352. F

CHEM 4482 Independent Problems in Chemistry 1-4 credits. Directed library and laboratory research. Courses 4481 and 4482 may be repeated for up to 6 credits. PREREQ: CHEM 3352. S

CHEM 4485 Senior Research 1-4 credits. The student will be introduced to research techniques, development of manipulative skills, instrumental methods, laboratory notebook keeping, data interpretation and library research. PREREQ: Acceptance into the B.S./M.S. program. May be repeated for up to 8 credits. D

CHEM 4491 Seminar 1 credit. A formal introduction to the chemical literature including electronic methods of literature searching. A detailed treatment of methods for presenting scientific seminars including a full-length student presentation on selected library or laboratory research. COREQ: CHEM 4481, 4482, 4485, or permission of instructor. F, S

CHEM 4498 Seminar in Biochemistry 1 credit. Review of current research and literature in the field of biochemistry. Cross-listed as BIOL 4498. PREREQ: senior standing or permission of department. F, S

Department of Communication and Rhetorical Studies

Chair and Professor: DiSanza
Professors: Gribas, Legge, Loeb
Associate Professor: Partlow-Lefevre
Associate Lecturer: Robinson
Lecturers: Broadhead, Corrigan,
Czerepinski, Dixon, 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.

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 2201	Business and Professional Speaking	3 cr
COMM 2208	Group Communication	3 cr
COMM 3305	Argumentation and Debate	3 cr
COMM 3308	Persuasion	3 cr
COMM 4408	Communication Theory	3 cr
COMM 4436	Rhetorical Criticism	3 cr
COMM 4437	Rhetorical Theory	3 cr
COMM 4441	Interpersonal Communication	3 cr

Required Organizational Communication Emphasis Courses:

COMM 2254	Organizational Communication	3 cr
COMM 4452	Conflict Management	3 cr
COMM 4454	Management Communication	3 cr

Organizational Communication Emphasis Electives:

(Must take 12 credits from the following:)

COMM 3313	Internship	1-6 cr
COMM 3355	Nonverbal Communication	3 cr
COMM 4440	Gender and Communication	3 cr
COMM 4442	American Rhetoric and Public Address	3 cr
COMM 4447	Rhetoric of Hitler and Churchill	3 cr
COMM 4451	Recent Rhetorical Issues	3 cr
		TOTAL: 45 cr

Emphasis in Rhetorical Studies

Required Major Core Courses:

COMM 2201	Business and Professional Speaking	3 cr
COMM 2208	Group Communication	3 cr
COMM 3305	Argumentation and Debate	3 cr
COMM 3308	Persuasion	3 cr
COMM 4408	Communication Theory	3 cr
COMM 4436	Rhetorical Criticism	3 cr
COMM 4437	Rhetorical Theory	3 cr
COMM 4441	Interpersonal Communication	3 cr

Required Rhetorical Studies Emphasis Courses:

COMM 4442	American Rhetoric and Public Address	3 cr
COMM 4447	Rhetoric of Hitler and Churchill	3 cr
COMM 4451	Recent Rhetorical Issues	3 cr

Rhetorical Studies Electives (Must take 12 credits from the following:)

COMM 2254	Organizational Communication	3 cr
COMM 3313	Internship	1-6 cr
COMM 3355	Nonverbal Communication	3 cr
COMM 4440	Gender and Communication	3 cr
COMM 4452	Conflict Management	3 cr
COMM 4454	Management Communication	3 cr
		TOTAL: 45 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 1101	Principles of Speech	3 cr
COMM 2201	Business and Professional Speaking	3 cr
COMM 2208	Group Communication	3 cr
THEA 1118	Oral Interpretation: Textual Analysis	3 cr
THEA 1131	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 mathematics.

Minor in Organizational Communication

Required Minor Core Courses:

COMM 3305	Argumentation and Debate	3 cr
COMM 3308	Persuasion	3 cr
COMM 4441	Interpersonal Communication	3 cr

Required Organizational Communication Minor Courses:

COMM 2254	Organizational Communication	3 cr
COMM 4454	Management Communication	3 cr

Organizational Communication Minor Electives:

(Must take 6 credits from the following):		
COMM 2201	Business and Professional Speaking	3 cr
COMM 2208	Group Communication	3 cr
COMM 3313	Internship	1-3 cr
COMM 3355	Nonverbal Communication	3 cr
COMM 4408	Communication Theory	3 cr
COMM 4452	Conflict Management	3 cr
		TOTAL: 21 cr

Minor in Rhetorical Studies

Required Minor Core Courses:

COMM 3305	Argumentation and Debate	3 cr
COMM 3308	Persuasion	3 cr
COMM 4441	Interpersonal Communication	3 cr

Required Rhetorical Studies Minor Courses:

COMM 4436	Rhetorical Criticism	3 cr
COMM 4437	Rhetorical Theory	3 cr

Rhetorical Studies Minor Electives:

(Must take 6 credits from the following):		
COMM 2201	Business and Professional Speaking	3 cr
COMM 3313	Internship	1-3 cr
COMM 4408	Communication Theory	3 cr
COMM 4442	American Rhetoric and Public Address	3 cr
COMM 4447	Rhetoric of Hitler and Churchill	3 cr
COMM 4451	Recent Rhetorical Issues	3 cr
		TOTAL: 21 cr

Communication and Rhetorical Studies Courses

COMM 1101 Principles of Speech 3 credits. Basic course in oral communication that emphasizes the theory and practice of informative speaking, logical argumentation, persuasion, small group discussion, and interpersonal communication. Designed to explain the humanistic nature of human communication and to improve a student's ability to express ideas orally. Satisfies Goal 2 of the General Education Requirements. F, S

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

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

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

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

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

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

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

COMM 3313 Internship 1-6 credits. Department approval required. Directed field experience with an approved agency. Learning contract required. May be repeated for up to 6 credits. PREREQ: Permission of instructor and department. F, S

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

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

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

COMM 4408 Communication Theory 3 credits. Examines models of social science and how these contribute to the development of communication theory. Examines a variety of communication theories in interpersonal, small group, organizational contexts. Focus on history of theory development in communication. S

COMM 4436 Rhetorical Criticism 3 credits. Study and application of various theories and methods of rhetorical criticism including Aristotelian and Burkeian principles. PREREQ: COMM 4437 or permission of instructor. S

COMM 4437 Rhetorical Theory 3 credits. Principal rhetorical theories from the Greeks through the 18th century and contemporary American theorists. Writings of Plato, Aristotle, Cicero, Quintilian, Campbell, Blair, Whately, and Burke are stressed. F

COMM 4440 Gender and Communication 3 credits. Course examines communication arenas from a perspective that focuses on gender and includes study of similarities and differences in female/male patterns. Topics include non-verbal, organizational, language, family and friendship. S

COMM 4441 Interpersonal Communication 3 credits. Largely theoretical course, drawing from research in social sciences as well as speech. Focuses on communication variables associated with interpersonal communication including awareness of self/others, nature/functions of language, nonverbal behavior, norms, and roles. F

COMM 4442 American Rhetoric and Public Address 3 credits. Has a dual purpose: to study the impact of rhetoric (oral and written persu-

sion) on major events in American history; to examine great speakers and rhetorical documents in their historical context. S

COMM 4447 Rhetoric of Hitler and Churchill 3 credits. Rhetorical theory and practice of these influential leaders and the impact of their persuasion. Topics include Hitler's oratory, Nazi propaganda, and Churchill's World War II speeches. F

COMM 4451 Recent Rhetorical Issues 3 credits. Study of the rhetoric of contemporary issues such as the Vietnam War, the Black Revolution, and other current political and social topics, including the rhetoric of ongoing election campaigns. F

COMM 4452 Conflict Management 3 credits. Examines the dynamics of everyday conflicts across a variety of settings, from personal to organizational. Principles of conflict, similar across all communicative contexts, are emphasized. Theory and its application are given equal importance. F

COMM 4454 Management Communication 3 credits. Examines the communication goals and functions unique to organizational managers and leaders. Topics studied include socialization and training, leader-member relationships, incentive-based systems of motivation, employee identification and commitment, and organizational development. S

COMM 4491 Independent Research Projects 1-3 credits. Under the supervision of professors in the various areas of communication, students will prepare reports and carry out projects designed to promote professional growth. May be repeated for up to 6 credits. PREREQ: Permission of instructor and department. F, S

Department of Economics

Acting Chair and Professor: Stowe
Professors: Benson, Hill, Stegner, Tokle
Associate Professor: Green
Visiting Assistant Professor: Yik
Emeritus Faculty: Hofman

Program Goals

The goal of the Department of Economics is to help students prepare for a career requiring a bachelor's degree in economics and for graduate study. In order for a student to be successful in these pursuits, the following skills must be obtained:

1. Learn how economists interpret and apply economic data to understand and predict economic events.
2. Develop an ability to objectively and critically identify and analyze economic issues.

3. Acquire an understanding of the theory and technical analysis required for graduate study.

One way or another, economic forces affect every individual, and thus an understanding of economics helps individuals cope with and adapt to the rapidly changing global marketplace. Most issues discussed at local, domestic, and international 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.

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 2201-2202	Principles of Macro- and Microeconomics	6 cr
ECON 3301	Macroeconomic Theory	3 cr
ECON 3302	Microeconomic Theory	3 cr
ECON 3306	History of Economic Doctrines	3 cr
ECON 3384	Mathematics for Economics	3 cr
ECON 4474	Current Economic Problems	3 cr
ECON 4485	Econometrics	3 cr
MATH 1170	Calculus I	4 cr
MATH 1153	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 2201-2202	Principles of Macro- and Microeconomics	6 cr
ECON 3301	Macroeconomic Theory	3 cr
ECON 3302	Microeconomic Theory	3 cr
ECON 4474	Current Economic Problems	3 cr
ECON 4485	Econometrics	3 cr
MATH 1160	Applied Calculus	3 cr
	OR	
MATH 1170	Calculus I	4 cr
MATH 1153	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 1103.

Required Courses

ECON 2201	Principles of Macroeconomics	3 cr
ECON 2202	Principles of Microeconomics	3 cr
ECON 3301	Macroeconomic Theory	3 cr

ECON 3302	Microeconomic Theory	3 cr
ECON 4474	Current Economic Problems	3 cr
ECON 4482	Internship*	1-9 cr
ECON 4485	Econometrics	3 cr
ENGL 4401	Advanced Composition	3 cr
PHIL 2201	Introduction to Logic	3 cr
MATH 1160	Applied Calculus	3 cr
	OR	
MATH 1170	Calculus I	4 cr
MATH 1153	Introduction to Statistics	3 cr

Plus 18 credits chosen from the following:

ANTH 4478	Federal Indian Law	3 cr
ANTH 4479	Tribal Governments	3 cr
ENGL 4410	Writing Internship (max 3 credits)	3 cr
HCA 3375	Health Law and Bioethics	3 cr
MC 4440	Media Law and Ethics	3 cr
MGT 4461	Business Law	3 cr
MGT 4480	Labor and Employment Law	3 cr
PHIL 4450	Ethical Theory	3 cr
POLS 3342	American Legal Systems	3 cr
POLS 3345	Jurisprudence and Legal Systems	3 cr
POLS 4442	Constitutional Law	3 cr
POLS 4443	Constitutional Law	3 cr
PSYC 4463	Clinical Psychology and the Law	3 cr

Plus 12 additional hours of upper division economics courses (excluding additional ECON 4482 credits)

* Internship must be with a member of the legal profession.

Economics Minor

Required Courses:

ECON 2201-2202	Principles of Macro- and Microeconomics	6 cr
ECON 3301	Macroeconomic Theory	3 cr
ECON 3302	Microeconomic Theory	3 cr
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 1100, ECON 2201, ECON 2202.

ECON 1100 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 2201 and 2202 have been taken. Satisfies Goal 11 of the General Education Requirements. F, S, Su

ECON 2201 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 2202 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 3301 Macroeconomic Theory 3 credits. Techniques of measuring aggregate economic activity including theories of gen-

eral equilibrium. PREREQ: ECON 2201 and ECON 2202. F

ECON 3302 Microeconomic Theory 3 credits. Theory of partial equilibrium, including economics of the firm, price theory, competition, monopoly, and linear processes. PREREQ: ECON 2201 and ECON 2202. S

ECON 3303 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 2201 and ECON 2202. F

ECON 3306 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 2201 and ECON 2202. S

ECON 3323 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 2201 and ECON 2202. F

ECON 3331 Money and Banking 3 credits. Principles of money, credit, and government controls of monetary institutions. History and organization of the money and banking systems of the United States. PREREQ: ECON 2201 and ECON 2202. F

ECON 3334 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 2201 and ECON 2202. S

ECON 3338 Public Finance 3 credits. Study of government revenues, expenditures, and debt management, including an analysis of the effects of these governmental activities on the American economy. PREREQ: ECON 2201 and ECON 2202. F

ECON 3341 Labor Economics 3 credits. History of the American labor movement and the structure and functioning of the labor market. PREREQ: ECON 2201 and ECON 2202. D

ECON 3351 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 2201 and ECON 2202. D

ECON 3352 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 are examined. PREREQ: ECON 2201 and ECON 2202. S

ECON 3362 Theory of Interest 3 credits. Interest rate concepts applied to solving time value of money problems such as: valuation of bonds and annuities (level, arithmetic increasing/decreasing, geometric increasing/decreasing), loan

amortization, capital budgeting, portfolio returns (dollar-weighted and time-weighted) and portfolio management (immunization). Introduction to financial instruments, including derivatives, and the no-arbitrage concept. Suitable for students pursuing a career in actuary, insurance or risk management. PREREQ: ECON 2201, ECON 2202; MATH 1160 or MATH 1170; and MATH 1153 or MGT 2216. F

ECON 3384 Mathematics for Economics 3 credits. Introductory study of mathematical methods that are frequently used in economics. Includes their application to basic economic theory. PREREQ: ECON 2201 and ECON 2202 or permission of instructor. S

ECON 4404 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 2201 and ECON 2202. F

ECON 4409 Industrial Organization 3 credits. Industrial organization extends the theory of the firm to examine firms' strategic behavior, including methods to differentiate products and aggressive pricing schemes, and the government's response to these activities. PREREQ: ECON 2201 and ECON 2202. D

ECON 4411 Political Economy 3 credits. A critical introduction to the relationship between economic institutions and social analysis. The social implications of different views on economic concepts, such as the division of labor, capital, and value, are investigated from a classical, neoclassical and an institutional perspective. PREREQ: ECON 2201 and ECON 2202. D

ECON 4433 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 2201 and ECON 2202. D

ECON 4439 State and Local Finance 3 credits. Study of taxation, borrowing and spending by state, city, county and other local governments. Taxing and spending patterns are evaluated and compared by states. PREREQ: ECON 2201 and ECON 2202. D

ECON 4472 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 2201 and ECON 2202. D

ECON 4474 Senior Seminar 3 credits. Discussion-driven capstone class that integrates selected topics in economics. Students will be required to do economic research, and write on and discuss current economic issues. PREREQ: At least senior standing. S

ECON 4482 Internship 1-9 credits. Directed student internship in economic organizations and businesses involving supervised work experience. The internship must be approved by the chair of the department. May be repeated for up to 9 credits. F, S, Su

ECON 4485 Econometrics 3 credits. 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 2201, ECON 2202, and MATH 1153. F

ECON 4481 Independent Studies 1-3 credits. Individuals will be assigned independent problems for research under the supervision of a departmental faculty member. May be repeated for up to 6 credits. F, S, Su

ECON 4491 Seminar 1-3 credits. F

ECON 4492 Seminar 1-3 credits. S

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

Department of English and Philosophy

Chair and Professor: M. Johnson
Director of Philosophy and Professor:
Wahl

Director of Graduate Studies and
Associate Professor: Winston
Director of Composition and Associate
Professor: Hellwig

Professors: B. Attebery, J. Attebery,
Baergen, Levenson, Schmidt,
Swetnam, Westphal

Associate Professors: S. Adkison,
Engbretsen, A. Johnson, Klein,
Launspach, Montgomery, Skidmore,
Whitaker

Assistant Professors: Goslee, Petit,
Shutters, Wolter

Visiting Assistant Professor: Pelletti
Senior Lecturers: Flanigan, Norton,
Pfister

Associate Lecturers: Dodd, Donovan,
Hall, S. Johnson, Lattin, McCurdy,
Reedy, Schultz Hurst

Assistant Lecturers: Blair, Eckert
Visiting Assistant Lecturer: Hardy
Adjunct Faculty: J.H. Levenson, Morris
Emeriti: Cantrill, Goldbeck, Huck,
Jacob, Jensen, Kijinski, K. King,
W. King, Mullin, Myers, Schow,
Smith, Tate, D. Walsh, M. E. Walsh

The Department of English and Philosophy offers broad curricula in two humanistic disciplines. English studies include courses that treat the nature of language, courses that explore human experience as represented in imaginative literature, and courses that develop general and specialized writing skills. The philosophy curriculum examines such topics as the nature of reality and being,

the ways that knowledge is acquired, and the bases for ethical choices.

These curricula serve two broad purposes: 1) they contribute to the general education, the personal enrichment and fulfillment, of students in all disciplines, and 2) they lead to degrees with majors or minors. Specifically, the department offers the A.A., B.A., M.A., and Ph.D. in English, and the B.A. in philosophy. (Full descriptions of the graduate degree programs in English may be found in the Graduate Catalog.)

Equipped with an undergraduate degree in either English or philosophy, students are prepared to enter graduate degree programs, to pursue training in such professions as medicine, law, or religion, or to embark upon a great variety of careers in government/business/industry that demand broad, liberal arts perspectives and strong observational, fact-finding, analytical, and communication skills. Additionally, English majors (with proper certification) are well prepared for careers in secondary education.

English Program

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

As such, the Department has articulated the following goals and student learning outcomes for students at the undergraduate level.

Mission and Goals

Undergraduate English programs in the Department of English and Philosophy provide students wishing to pursue a liberal arts education training in the study of language, literature, writing, and culture. Such training will provide students with strong communication skills, an ability to gather information and use it critically, an understanding of the function of language within the culture, and a historical and critical understanding of the role literature plays within the human experience.

Student Learning Outcomes

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

Philosophy Program

The Philosophy Program offers courses on the history of philosophy, philosophical issues, and the cognitive skills required in philosophy. These offer students a deeper understanding of our past and our place in the world, as well as helping them to develop analytic and writing skills that are valuable in all disciplines. Students take either Introduction to Philosophy (PHIL 1101) or Introduction to Ethics (PHIL 1103) to 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.
6. Students will be aware of the larger historical and intellectual context of the problem addressed.
7. Students will be aware of the broader implications of the position embraced.

**Bachelor of Arts
In English**

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 0090, 1101, 1102, 1103, 1105).

Option 1—General**Category I—Literature
(27 credits)****Required:**

ENGL 2211	Introduction to Literary Analysis	3 cr
ENGL 4491	Senior Seminar	3 cr

**Plus two courses from the following,
one of which must be from 2267/2268
or 2277/2278:**

ENGL 2257	Survey of World Literature I	3 cr
ENGL 2258	Survey of World Literature II	3 cr
ENGL 2267	Survey of English Literature I	3 cr
ENGL 2268	Survey of English Literature II	3 cr
ENGL 2277	Survey of American Literature I	3 cr
ENGL 2278	Survey of American Literature II	3 cr

Plus one course from the following:

ENGL 3321	Genre Studies in Drama	3 cr
ENGL 3322	Genre Studies in Poetry	3 cr
ENGL 3323	Genre Studies in Prose Fiction	3 cr
ENGL 3324	Genre Studies in Prose Non-Fiction	3 cr
ENGL 3327	Special Topics in Genre	3 cr

Plus two courses from the following:

ENGL 4461	Classical Literature	3 cr
ENGL 4462	Medieval Literature	3 cr
ENGL 4463	Renaissance Literature	3 cr
ENGL 4464	Seventeenth-Century Literature	3 cr
ENGL 4465	Eighteenth-Century Literature	3 cr
ENGL 4466	Early Nineteenth-Century Literature	3 cr
ENGL 4467	Late Nineteenth-Century Literature	3 cr
ENGL 4468	Early Twentieth-Century Literature	3 cr
ENGL 4469	Contemporary Literature	3 cr

Plus one course from the following:

ENGL 4472	Proseminar in a Major Literary Figure	3 cr
ENGL 4473	Chaucer	3 cr
ENGL 4474	Milton	3 cr
ENGL 4476	Shakespeare	3 cr

Plus one course from the following:

ENGL 3328	Gender in Literature	3 cr
ENGL 3356	Ethnicity in Literature	3 cr
ENGL 4470	Post-Colonial Literature	3 cr
ENGL 4489	American Indian Literature	3 cr

**Category II—Language
Studies (6 credits)****Required:**

ENGL 2280	Grammar and Usage OR	3 cr
ENGL 2281	Introduction to Language Studies	3 cr

Plus one course from the following:

ENGL 4480	Varieties of American English	3 cr
ENGL 4481	Studies in Grammar	3 cr
ENGL 4485	Linguistic Analysis	3 cr
ENGL 4486	Old English	3 cr
ENGL 4487	History of the English Language	3 cr

**Category III—Writing
(3 credits)****Required:**

ENGL 3301	Writing About Literature	3 cr
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**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 2280	Grammar and Usage OR	3 cr
ENGL 2281	Introduction to Language Studies	3 cr
ENGL 3301	Writing About Literature	3 cr
ENGL 3307	Professional and Technical Writing	3 cr
ENGL 3308	Business Communications	3 cr
ENGL 4401	Advanced Composition and Prose Analysis	3 cr
ENGL 4410	Writing Internship	3 cr
PHIL 2201	Introduction to Logic	3 cr

Plus one course from the following:

ENGL 2206	Creative Writing Workshop	3 cr
ENGL 3306	Creative Writing Workshop	3 cr
ENGL 4406	Advanced Creative Writing Workshop	3 cr

Plus three courses from the following:

ENGL 4410	Writing Internship (3 further credits)	3 cr
MC 2215	Graphic Design OR	3 cr
MC 4415	Advanced Graphic Design	3 cr
MC 2241	Introduction to Public Relations	3 cr
MC 2230	Introduction to Photography OR	3 cr
MC 4410	Advanced Photography	3 cr
MC 3325	Editing for Print Media	4 cr
MC 3327	Magazine Article Writing	3 cr
MC 3355	Advertising Copywriting	3 cr
MC 4445	Editorial Writing	3 cr
COMM 4437	Rhetorical Theory	3 cr

**Category II—Literature
(12 credits)****Required:**

ENGL 2211	Introduction to Literary Analysis	3 cr
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Plus one course from the following:

ENGL 2257	Survey of World Literature I	3 cr
ENGL 2267	Survey of English Literature I	3 cr
ENGL 2277	Survey of American Literature I	3 cr

Plus one course from the following:

ENGL 2258	Survey of World Literature II	3 cr
ENGL 2268	Survey of English Literature II	3 cr
ENGL 2278	Survey of American Literature II	3 cr

Plus one course from the following:

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

PROFESSIONAL WRITING ENGLISH MAJOR TOTAL:		45 cr
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**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 2206	Creative Writing Workshop	3 cr
ENGL 2280	Grammar and Usage OR	3 cr
ENGL 2281	Introduction to Language Studies	3 cr
ENGL 3301	Writing About Literature	3 cr
ENGL 3306	Creative Writing Workshop	3 cr
ENGL 4401	Advanced Composition and Prose Analysis	3 cr
ENGL 4406	Advanced Creative Writing Workshop	3 cr
ENGL 4448	Senior Creative Project	3 cr

Plus one course from the following:

ENGL 3307	Professional and Technical Writing	3 cr
ENGL 3308	Business Communications	3 cr

Plus one course from the following:

ENGL 4480	Varieties of American English	3 cr
ENGL 4481	Studies in Grammar	3 cr
ENGL 4485	Linguistic Analysis	3 cr
ENGL 4487	History of the English Language	3 cr

**Plus two courses (at least one upper
division) from the following:**

ART 4422	World Arts OR	3 cr
ART 4423	Nineteenth Century Art OR	3 cr
ART 4424	Twentieth Century Art OR	3 cr
ART 4425	Contemporary Art Forms	3 cr
ENGL 3305	Art of the Film II	3 cr
ENGL 2212	Introduction to Folklore OR	3 cr
ENGL 4490	Folklore OR	3 cr
ENGL 4492	Folklore and Literature	3 cr
MC 2215	Graphic Design OR	3 cr
MC 415	Advanced Graphic Design	3 cr
MC 2230	Introduction to Photography OR	3 cr
MC 4410	Advanced Photography	3 cr
MC 3300	Television Production	3 cr
MC 3327	Magazine Article Writing	3 cr
THEA 2251	Beginning Acting OR	3 cr
THEA 2252	Intermediate Acting	3 cr

**Category II—Literature
(12 credits)****Required:**

ENGL 2211	Introduction to Literary Analysis	3 cr
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Plus one course from the following:

ENGL 2257	Survey of World Literature I	3 cr
ENGL 2267	Survey of English Literature I	3 cr
ENGL 2277	Survey of American Literature I	3 cr

Plus one course from the following:

ENGL 2258	Survey of World Literature II	3 cr
ENGL 2268	Survey of English Literature II	3 cr
ENGL 2278	Survey of American Literature II	3 cr

Plus one course from the following:

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

CREATIVE WRITING ENGLISH MAJOR TOTAL:		45 cr
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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.

**Prerequisites and
Standards**

To enroll in 2000-level English courses, students must have satisfied Goal 1 (ENGL 1101 and 1102).

To enroll in 3000-level literature courses, students must have completed either English 2211 or a 2000-level literature survey course (ENGL 2257/8, 2267/8, 2277/8).

To enroll in 4000-level courses, students must have completed all 2000-level English requirements (ENGL 2211, 2280/1, and two English literature survey courses) and have junior or senior standing.

To graduate as an English major or minor, students must maintain at least a 2.25 grade point average in courses within the English curriculum.

Some courses may have additional prerequisites.

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 0090, 1101, 1102, and 1105—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 3301 or ENGL 3307.

Minor in English: Writing

Twenty-one hours of credit in English, including ENGL 2280 or 2281; 3301, and 4487, plus four other courses, of which at least two must be upper-division, from among the following courses: ENGL 1107, 2206, 3306, 3307, 4401, 4406, 4481, 4485, PHIL 2201.

**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 2206, 3306, or 4406; twelve (12) credits must be earned in upper-division courses, three (3) of

which must be from ENGL 4448 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)

		37-53* cr
ENGL 1101	English Composition	3 cr
ENGL 1102	Critical Reading and Writing	3 cr
ENGL 2211	Introduction to Literary Analysis	3 cr
ENGL 2280	Grammar and Usage OR	3 cr
ENGL 2281	Introduction to Language Studies	3 cr

Choose three courses from:

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

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 Courses

ENGL 0090 Basic Writing 0 credits (3 credit equivalent). For students not meeting ENGL 1101 placement requirements. Prepares students for ENGL 1101 by addressing fundamentals

at sentence, paragraph, and essay levels, with emphasis on student's own writing. Graded S/U. F, S, Su

ENGL 1100 Introduction to Academic Writing and Speaking for Non-Native Speakers of English 3 credits. Explores culture-based academic expectations and conventions in communication. Graded S/U. PREREQ: ISU Admission; 500+ TOEFL or permission. F, S

ENGL 1101 English Composition 3 credits. Course in which students read, analyze and write expository essays for a variety of purposes consistent with expectations for college-level writing in standard edited English. F, S, Su, W

ENGL 1102 Critical Reading and Writing 3 credits. Writing essays based on readings. Focus on critical reading; research methods; gathering, evaluating, analyzing, and synthesizing ideas and evidence; documentation. Satisfies Goal 1 of the General Education Requirements when passed with at least a C- grade. PREREQ: ENGL 1101 or equivalent. F, S, Su

ENGL 1107 Nature of Language 3 credits. General survey of structure and use of language. Topics include language origins, descriptive and historical linguistics, language and culture, and history of the English language. Cross-listed as ANTH 1107 and LANG 1107. S

ENGL 1110 Introduction to Literature 3 credits. Introduction to the critical reading of various literary genres, with attention to the interpretation and evaluation of representative texts. Satisfies Goal 7 of the General Education Requirements. F, S, Su

ENGL 1115 Major Themes in Literature 3 credits. Introduction to literature through the study of one or more major themes that cross historical and cultural boundaries. May be repeated for up to 6 credits with different content. Satisfies Goal 7 of the General Education Requirements. F, S

ENGL 1126 Art of Film I 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 2206 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. R1

ENGL 2211 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. PREREQ: English 1102 or equivalent. F, S

ENGL 2212 Introduction to Folklore/Oral Tradition 3 credits. Folklore genres and folk groups, including introductory experience in folklore fieldwork focused on study of a genre or group of genres within verbal, customary, or material culture. Cross-listed as ANTH 2212. R1

ENGL 2257 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 2258 Survey of World Literature II (17th Century to Present) 3 credits. Examination of major works and authors in historical perspective, with emphasis upon literary and cultural backgrounds. Satisfies Goal 7 of the General Education Requirements. R1

ENGL 2267 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 2268 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 2277 Survey of American Literature I (Beginnings to 1860) 3 credits. Examination of major works and authors in historical perspective with emphasis upon literary and cultural backgrounds. R1

ENGL 2278 Survey of American Literature II (1860 to present) 3 credits. Examination of major works and authors in historical perspective with emphasis upon literary and cultural backgrounds. R1

ENGL 2280 Grammar and Usage 3 credits. Introduction to the grammar of standard written English. The course is designed to give students an improved knowledge of grammar in order to improve usage and writing skills at both the sentence and paragraph level. S

ENGL 2281 Introduction to Language Studies 3 credits. Introduction to basic concepts and models for the study of English phonology, morphology, syntax, and lexis. F, S

ENGL 3301 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 2211. F, S

ENGL 3305 Art of the Film II 3 credits. In-depth investigation of cinematic art with focus on one or more of the following: genre, historical development, aesthetics, criticism, social impact, and artists. Screening of representative films. PREREQ: ENGL 1126 or permission. D

ENGL 3306 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 2206 or equivalent. R1

ENGL 3307 Professional and Technical Writing 3 credits. An intensive course covering skills and conventions pertinent to writing in the professions, including technical writing. Applications in disciplines or subjects of interest to the individual student. Especially

appropriate for science, engineering, and pre-professional majors. PREREQ: 45 credits and ENGL 1102. F, S

ENGL 3308 Business Communications 3 credits. An advanced course in conventions of business communications, emphasizing purpose and audience. Focus on style, semantics, research skills, format, persuasion, and critical analysis and synthesis of data. PREREQ: 60 credits and ENGL 1102. F, S, Su

ENGL3321 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

ENGL3322 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 3323 Genre Studies in Prose Fiction 3 credits. Comparative studies of varying forms and conventions in selected prose fiction, with attention to their origins, evolution, and theoretical basis. R2

ENGL 3324 Genre Studies in 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

ENGL3327 Special Topics in Genre 3 credits. Focused study of a generic tradition modified by thematic or historical contexts, with emphasis on topics not regularly treated in ENGL 3321-3324. D

ENGL 3328 Gender in Literature 3 credits. Considers the role of gender in literature, including issues of authorship, reader communities, and literary representations of women and men. R2

ENGL 3341 Bible as Literature 3 credits. Study of various types of literature found in the Bible, with a view of attaining greater knowledge of and appreciation for this aspect of the literary heritage. R2

ENGL 3348 Independent Problems 1-3 credits. Consultation course for upperclassmen interested in problems in language and literature not adequately covered by regular offerings. PREREQ: Permission of the Department. D

ENGL3353 The West in American Literature 3 credits. Survey of the literature of Western America since 1800. D

ENGL3356 Ethnicity in Literature 3 credits. Study of the construction of ethnicity in literature, with attention to specific concerns relevant to one or more ethnic groups. R2

ENGL 3367 Language in the United States 3 credits. A survey of the languages of the United States (American Indian languages, immigrant languages, and ethnic and regional varieties of English) along with the social and political aspects of American language use. Cross-listed as ANTH 3367. PREREQ: ANTH/LANG/ENGL 1107. D

ENGL 4401 Advanced Composition 3 credits. An advanced course in which students develop an independent style in writing such types of essays as the personal, biographical,

argumentative, and critical. May contain prose analysis. PREREQ: ENGL 3301, ENGL 3307 or ENGL 3308. R2

ENGL 4406 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 3306 or permission of instructor. R1

ENGL 4409 Literary Magazine Production 3 credits. Hands-on experience in literary magazine production: editing, proofreading, and design. Strategies for screening and selecting stories, poems, and reviews. Consideration of the role of the small press in national literary culture. S

ENGL 4410 Writing Internship 1-6 credits. On-the-job writing experience in business, industry, or government settings. May be repeated for up to 6 credits. PREREQ: 90 credits and ENGL 3301, ENGL 3307, or ENGL 3308. Graded S/U. F, S

ENGL 4431 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 4433 Methods: Teaching English 3 credits. Study of the objectives and methods of teaching literature and composition in secondary schools. Ideally taken semester before student teaching. PREREQ: GOAL 1, ENGL 2211 and ENGL2281, plus 3 additional hours of English. F

ENGL 4440 Philosophy and Literature 3 credits. Reflections on the relation between poetic and speculative discourse. Topics include forms of consciousness, temporality and narrative, metaphysics of genre. Cross-listed as PHIL 4440. R2

ENGL4448 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 4453 American Indian Literature 3 credits. Considers literary works by and about North American native people, especially in relationship to history, genre, and culture, including oral traditions. Cross-listed as ANTH 4453. PREREQ: Goal 1. R2

ENGL 4455 Studies in National Literatures 3 credits. Studies in important literatures and cultures not otherwise covered in the curriculum. May include literatures in translation and literature written in English outside of America and the British Isles. Cross-listed as CMLT 4415. May be repeated for up to 6 credits with different content. R3

ENGL4456 Comparative Literature 3 credits. The analysis of ideas, problems, and techniques common to important writers of various national literatures. R3

ENGL 4461 Classical Literature 3 credits. Study of the major literature of the classical Greek and Roman periods, especially in relationship to its cultural backgrounds. R3

ENGL 4462 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

ENGL4463 Renaissance Literature 3 credits. Study of the major literature of the Renaissance and its background, with emphasis upon the development of English literature. R2

ENGL4464 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 4465 Eighteenth-Century Literature 3 credits. Study of the major literature of the eighteenth century and its background, with emphasis upon the development of English, American or other literature of the period. R2

ENGL 4466 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

ENGL4467 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

ENGL4468 Early Twentieth-Century Literature 3 credits. Study of the major literature of the early twentieth century and its background, with emphasis upon English, American or other literature of the period. R2

ENGL 4469 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 4470 Post-Colonial Literature 3 credits. Study of post-colonial literary texts, with attention to the role of literature in history, political resistance, and social movements of one or more colonized cultures. R2

ENGL 4472 Proseminar in a Major Literary Figure 3 credits. Intensive study in a single major author other than Chaucer, Milton, and Shakespeare, demanding some independent study and small group participation. R1

ENGL4473 Chaucer 3 credits. Intensive study of selected works of Chaucer. D

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

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

ENGL 4477 Shakespeare in Performance 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 4480 Varieties of American English 3 credits. In-depth study of various dialects of American English, including historical evolution of different dialects, effects of migration on dialects, and influences of non-English immigrant languages on development of American English. Field-work studying the Snake River dialects of Idaho. Cross-listed as ANTH 4480.

PREREQ: ANTH/ENGL/LANG 1107 or ENGL 2280 or ENGL 2281. D

ENGL 4481 Studies In Grammar 3 credits. Focus on the study of transformational-generative grammar and its application to sentence level problems. PREREQ: ENGL 2280. R2

ENGL 4484 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 4484 and LANG 4484. PREREQ: ANTH/ENGL/LANG 1107 or ENGL 2280 or ENGL 2281. D

ENGL 4485 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 2281. R2

ENGL 4486 Old English 3 credits. Intensive study of the Old English language, with attention to its intrinsic structure and its relation to Middle and Modern English. R2

ENGL 4487 History of the English Language 3 credits. Study of the linguistic and socio-political changes and developments in the English language. R2

ENGL 4488 Introduction to Sociolinguistics 3 credits. Study of the patterned covariation of language and society, social dialects and social styles in language; problems of bilingualism, multilingualism, creoles and language uses. Cross-listed as ANTH 4450. PREREQ: ANTH 1107, ENGL 2280 or ENGL 2281, or permission of instructor. F

ENGL 4490 Topics in Folklore 3 credits. Focused study of an issue in folkloristics or a particular genre of folklore, including history of the scholarship concerning that issue or genre. Rotating topics. May be repeated up to 9 credits with different topics. Cross-listed as ANTH 4490. R1

ENGL 4491 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 3301 and 6 additional hours of upper-division English. F, S

ENGL 4492 Folklore and Literature 3 credits. Study of cross-influences between oral and written literatures. Emphasis may be on a written genre that imitates and draws upon oral genres, a movement or period in which oral tradition strongly influences written forms, or a particular writer who incorporates motifs and storytelling patterns from folklore. Rotating topics. May be repeated for up to 9 credits. R2

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

Bachelor of Arts in Philosophy

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

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

Option 1 - Traditional Major

Required courses:

PHIL 2201	Introduction to Logic	3 cr
PHIL 3305	History of Philosophy: Greek Reason and Christian Faith	3 cr
PHIL 3315	History of Philosophy: Rationalism and Empiricism	3 cr
PHIL 4450	Ethical Theory	3 cr
PHIL 4460	Theory of Knowledge	3 cr
PHIL 4492	Senior Tutorial	3 cr

Plus 12 additional hours of philosophy electives.

Option 2 - Pre-law Emphasis

Required courses:

PHIL 2201	Introduction to Logic	3 cr
PHIL 3305	History of Philosophy: Greek Reason and Christian Faith	3 cr
PHIL 3353	Philosophy of Law	3 cr
PHIL 4450	Ethical Theory	3 cr
PHIL 4460	Theory of Knowledge	3 cr
PHIL 4492	Senior Tutorial	3 cr

Plus one course from the following:

PHIL 3355	Political and Social Philosophy	3 cr
POLS 3313	Introduction to Political Philosophy	3 cr
POLS 4418	Topics in Political Theory	3 cr
POLS 4420	Contemporary Political Theory	3 cr

Plus one course from the following:

POLS 2249	Introduction to Criminal Law	3 cr
POLS 3342	American Legal System	3 cr
POLS 3345	Jurisprudence	3 cr
POLS 4442	Constitutional Law	3 cr
POLS 4443	Constitutional Law	3 cr

Plus six additional hours of philosophy electives.

Minor in Ethics

Required courses: eighteen semester-hours of philosophy including

PHIL 4450	Ethical Theory	3 cr
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And at least two of the following:

PHIL 2220	Philosophical Issues in Religion	3 cr
PHIL 2230	Bioethics	3 cr
PHIL 3353	Philosophy of Law	3 cr
PHIL 3355	Political and Social Philosophy	3 cr

Minor in Philosophy

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

Minor in Philosophy and Religion

Eighteen semester-hours of philosophy including two of:

PHIL 2210	Introduction to Asian Philosophy	3 cr
PHIL 2220	Philosophical Issues in Religion	3 cr
PHIL 2225	Philosophy and the Old Testament	3 cr
PHIL 4425	Existentialism	3 cr

Plus one of the following:

HIST 2252	East Asian History	3 cr
HIST 2254	Middle Eastern Civilization	3 cr
SOC 3368	The Sociology of Religion	3 cr

Philosophy Courses

PHIL 1101 Introduction to Philosophy 3 credits. An introduction to the major thinkers and major problems in Western philosophical and scientific traditions. Sections may emphasize either an historical or a problems approach. Satisfies Goal 8 of the General Education Requirements. F, S, Su

PHIL 1103 Introduction to Ethics 3 credits. An introduction to philosophy through an analytical and historical study of major ethical theories. The course will focus on the basis of judgments and reasoning concerning questions of good and bad, right and wrong. Satisfies Goal 8 of the General Education Requirements. F, S, Su

PHIL 2201 Introduction to Logic 3 credits. An introduction to the concepts and methods of deductive and inductive logic, with special emphasis on the use of logical methods to identify, analyze, construct, and evaluate everyday arguments. R1

PHIL 2210 Introduction to Asian Philosophies 3 credits. A study of Hindu, Buddhist, and other Far Eastern approaches to topics such as immortality, time, reality, mystical experience, the divinity of the soul, the question of duty. Emphasis varies. R2

PHIL 2220 Philosophical Issues in Religion 3 credits. An inquiry into the nature of religious belief, the concept of God, rational proofs of the existence of God, the religious experience, the concept of faith, the character of religious language, the meaning of myths and symbols, and the question of modern atheism. R2

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

PHIL 2230 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 3305 History of Philosophy: Greek Reason and Christian Faith 3 credits. Philosophical readings from the pre-Socratics to St. Thomas Aquinas. Topics include the theory of essence, human nature and happiness, the problem of evil, the relation of reason and faith. R2

PHIL 3315 History of Philosophy: Rationalism and Empiricism 3 credits. Readings in philosophy from Descartes to Hegel. Emphasis on the question of the limits of human knowledge. D

PHIL 3325 History of Philosophy: Modern Philosophical Movements 3 credits. Readings in philosophy of the 19th and 20th centuries. Organized to illuminate the development of particular schools of thought, including existentialism, pragmatism, phenomenology, analytic philosophy, and Marxism. Emphasis varies. D

PHIL 3353 Philosophy of Law 3 credits. An investigation of historical and contemporary theoretical approaches to law and a variety of philosophical problems that arise with respect to the law. Topics include natural law theory, legal positivism, legal realism, Constitutional interpretation, theory of punishment, and civil liberties. R2

PHIL 3355 Political and Social Philosophy 3 credits. Questions concerning social justice as discussed by Plato, Aristotle, Hobbes, Locke, Hegel, Marx and others. D

PHIL 4400 Philosophy of Art 3 credits. Study of philosophic problems encountered in perceiving, interpreting, and evaluating works of art. Topics include the nature of a work of art, aesthetic response, expression, symbol; the nature and role of representation; the nature of interpretive and evaluative claims. R2

PHIL 4410 Philosophy of Language 3 credits. Study of theories of language, with emphasis on contemporary thinkers such as Frege, Heidegger, Russell, Wittgenstein, Piaget, and Chomsky. Topics include the nature and origin of meaning, the temporal dimension of discourse, the significance of syntax, animal languages, computer languages. D

PHIL 4420 Philosophy of Mind 3 credits. Inquiry into the mind-body problem and representative solutions, such as dualism, philosophical behaviorism, central-state materialism. Related topics include the self, personal identity, immortality, claims of parapsychology, mystical consciousness. R2

PHIL 4425 Existentialism 3 credits. A survey of major works of Kierkegaard, Nietzsche, Heidegger, Sartre, and Camus. Topics may include the origins of values, the death of God, the varieties of despair, the inevitability of love's failure and the absurdity of life. R2

PHIL 4430 Philosophy of Science 3 credits. A 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 4435 Metaphysics 3 credits. A study of some of the main questions of metaphysics, including such topics as being, substance, universals, space and time, appearance and reality, identity, freewill and determinism, causality and the nature and possibility of metaphysics itself. D

PHIL 4440 Philosophy and Literature 3 credits. Reflections on the relation between poetic and speculative discourse. Topics include forms of consciousness, temporality and narrative, metaphysics of genre. Cross-listed as ENGL 4440. D

PHIL 4450 Ethical Theory 3 credits. Study of the nature of value claims, stressing ethical value claims; examination of the scope of reason in ethical decision-making. Applications to normative ethical theories. Related topics include human rights, justice, ethical and legal systems. R2

PHIL 4460 Theory of Knowledge 3 credits. A survey of reflections on the question, "What, if anything, can we know?" Topics include knowing, believing, meaning, truth, and certainty. R2

PHIL 4470 Symbolic Logic and Foundations of Mathematics 3 credits. A comprehensive study of formal methods of determining validity and of systems of symbolic logic, with attention to the philosophy of logic and the relationship between logic and mathematics. D

PHIL 4480 Philosophy Tutorial 2 credits. Consultation course for seniors interested in a philosophical problem connected with their major field. Will consist of independent reading, conferences, and the preparation of a term paper. May be repeated for up to 6 credits. F, S

PHIL 4490 Philosophy Seminar 1-3 credits. Advanced reading and discussion on selected topics in philosophy. May be repeated with permission of the department. D

PHIL 4492 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, folktale, 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 orientations 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 2212, introduces students to the study of folklore genres, folklore fieldwork, and types of folk groups. Upper-division courses provide students with more focused study of folklore issues and genres, the history of folklore scholarship, particular folk cultures, and the interrelationship of genres within those cultures. The program also provides opportunities for study of ethnographic and material culture fieldwork techniques. Specialized courses include material culture, American Indian verbal and material arts, and courses in the relationships between folklore and literature, including fantasy literature.

The minor in folklore consists of 18 credits, as follows:

Required Course:

ANTH/ENGL 2212 Introduction to Folklore/Oral Tradition 3 cr

Choose 15 credits from:

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

Department of Geosciences

Chair and Professor: Thackray
Professors: Link, McCurry, Rodgers
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, Welhan,
Winterfeld

GIS TRc Affiliate: Weber
Research Associates: Shapley, Tang,
Wang

Emeriti: Blount, Fortsch, Hughes, Ore

Overall Departmental Goals

1. Graduates will think critically and comprehend written and verbal communications about geoscience topics.
2. Graduates will have specific skills for careers in geoscience and related industries, licensure, or to continue in graduate study.
3. Graduates will attain employment in geology or related fields or gain admission to graduate programs.

Program-Specific Goals and Objectives

I. Goals

1. Graduates will know geoscience materials, principles, and their applications to scientific inquiry and to societal concerns.
2. Graduates will understand geologic processes and their expression in the history of the Earth.

II. Objectives

1. Provide undergraduate students with coursework, laboratory experiences, field exercises and hands-on opportunities in order to achieve all goals set forth above.

2. Improve students' awareness of opportunities for professional employment, licensure, or continued education.

The Idaho State University Department of Geosciences is an active community of scholars consisting of undergraduate and graduate students, support and research staff, and professors. Objectives of the department are to train students for professional positions or further study in all aspects of the geosciences. Most courses include field trips and hands-on experience. The Idaho State University Geology summer field camp based at the Lost River Field Station north of Mackay, Idaho, is nationally recognized and attended by students from universities nationwide. 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 1100 and GEOL 1100L, or GEOL 1101 and GEOL 1101L, and who have decided to major in geology, must take GEOL 1110, which is the prerequisite for many other courses in the geology major. For the purposes of a geology major or minor, only 4 credits will be granted for any combination of GEOL 1100, GEOL 1100L, GEOL 1101, GEOL 1101L, and GEOL 1110.

Admittance to Geosciences Major

Idaho State University recognizes three categories with regard to a student's major status:

P—Pre-Major

In the process of applying to Idaho State University, the student may indicate a preference for the Geosciences major.

This is not the same as actually having a major in Geosciences.

I—Intending to Major

1. Declare a Geosciences major in the Geosciences Department office;
2. Meet with an advisor and outline a plan of study.

A—Admitted to Geosciences Major

1. Earn a grade of "C" or better in GEOL 1100 or 1101 (3 cr.);
2. Earn a grade of "C" or better in GEOL 1110 (1 cr.);
3. Complete University General Education Goals 1 through 3 (English, Speech, and Mathematics).
4. Choose one or more of the degrees available in Geosciences.

Bachelor of Arts in Geology

The B.A. degree is offered for students who wish either a broader-based liberal arts degree or a broader multi-disciplinary science degree than is possible with the B.S. The B.A. degree is especially suited for future earth science teachers, environmental scientists, environmental lawyers, and others who wish to learn more about how the earth works. The degree fulfills major requirements for secondary school earth science teachers. Refer to the specific Goal requirements for the B.A. degree described in the General Information section of this catalog.

Required Courses:

CHEM 1111, 1111L	General Chemistry I	5 cr
MATH 1147	Precalculus	5 cr
GEOL 1100	The Dynamic Earth OR	3 cr
GEOL 1101	Physical Geology (recommended)	3 cr
GEOL 1110	Physical Geology for Scientists Laboratory	1 cr
GEOL 2202	Historical Geology	3 cr
GEOL 2210	Earth in Space and Time	3 cr
GEOL 3313	Earth Materials I	3 cr
GEOL 3315	Evolution of the Earth's Surface	4 cr
GEOL 4421	Structural Geology	4 cr
GEOL 4431	Geobiology and the History of Life	4 cr
GEOL 4452	Sedimentation-Stratigraphy	4 cr
GEOL 4456	Geology of Idaho OR	2 cr
GEOL 4458	Geology of North America	3 cr
TOTAL: 31 to 32 geoscience credits plus 8 to 9 other upper division geoscience credits to equal 40 credits.		

Bachelor of Science in Geology

The B.S. degree is offered for undergraduates who wish to become professional geoscientists either after their bachelor's degree or after subsequent graduate study. It trains students in the essential observational and analytical skills of field geology as well as more applied areas of microscope petrology, geochemistry, and geotechnology. The B.S. degree is designed to give the student a broad and comprehensive understanding of the discipline of geology and a firm background in math, physics, and chemistry. Refer to the specific Goal requirements for the B.S. degree described in the General Information section of this catalog.

Required Courses:

MATH 1147	Precalculus	5 cr
MATH 1170	Calculus I	4 cr
MATH 1175	Calculus II	4 cr
CHEM 1111, 1111L	General Chemistry I, and Lab	5 cr
CHEM 1112, 1112L	General Chemistry II, and Lab	4 cr
PHYS 1111,*1112*	General Physics I and II	6 cr
	OR	
PHYS 2211,*2212*	Engineering Physics (recommended)	8 cr
GEOL 1100	The Dynamic Earth	3 cr
	OR	
GEOL 1101	Physical Geology (recommended)	3 cr
GEOL 1110	Physical Geology for Scientists Laboratory	1 cr
GEOL 2210	Earth in Space and Time	3 cr
GEOL 3313	Earth Materials I	3 cr
GEOL 3314	Earth Materials II	3 cr
	OR	
GEOL 4420	Principles of Geochemistry	3 cr
GEOL 3315	Evolution of the Earth's Surface	4 cr
GEOL 4421	Structural Geology	4 cr
GEOL 4430	Principles of Hydrogeology	3 cr
	OR	
GEOL 4431	Geobiology and the History of Life	4 cr
GEOL 4450**	Field Geology	6 cr
GEOL 4452	Sedimentation-Stratigraphy	4 cr

Plus one of the following three courses:

GEOL 4403,4403L	Principles of Geographic Information Systems, and Lab	3 cr
GEOL 4407	GPS Applications in Research	3 cr
GEOL 4409	Remote Sensing	3 cr

TOTAL: 37 to 38 required geoscience credits plus at least 10 other optional geoscience credits to equal at least 48 geoscience credits. GEOL 4430 is strongly recommended for those considering graduate studies or employment in the field of environmental geoscience.

*May choose the following optional courses:

PHYS 1113,1114	General Physics Laboratory	2 cr
PHYS 2213,2214	Engineering Physics Laboratory	2 cr

**GEOL 4450 is a 5-week summer field course, usually taken between the junior and senior years.

Emphasis in Engineering Geology

Complete the following courses in addition to the Bachelor of Science in Geology:

CE/GEOL 4454	Basic Engineering Geology	3 cr
CE/GEOL 4455	Geologic Data Methods	3 cr
CE/GEOL 4475	Essentials of Geomechanics	3 cr
CE/GEOL 4476	Engineering Geology Project	1 cr
CE 4480	Earthquake Engineering	3 cr

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 set of courses (17 cr)

BIOL 1101,1101L	Biology I, and Lab	4 cr
BIOL 1102,1102L	Biology II, and Lab	4 cr
CHEM 1111, 1111L	General Chemistry I, and Lab	5 cr
BIOL 2209	General Ecology	4 cr

One of the following 3 courses (3, 4, or 5 cr)

MATH 1147	Pre-Calculus (B.A.)	5 cr
MATH 1160	Applied Calculus (B.S.)	3 cr
MATH 1170	Calculus I (B.S.)	4 cr

Plus (3 cr)

MATH 1153	Introduction to Statistics	3 cr
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or another approved statistics course

One of the following 5 courses (2 or 3 cr)

HIST 4430	Environmental History	3 cr
POLS 4455	Environmental Politics and Policy	3 cr
SOC 3335	Population and Environment	3 cr
GEOL/PHYS 4410	Science in American Society	2 cr
GEOL/HIST/POLS 4471	Historical Geography of Idaho	3 cr

Recommended

ENGL 3307	Professional and Technical Writing	3 cr
PHYS 2211	Engineering Physics (B.S.)	4 cr

Required and Elective Core Courses (28-31 cr):

The required and elective core provides a broad background in Earth Systems and Geosciences. The GEOL 1115 course introduces the Earth System components and GEOL 4406 covers modern environmental issues and their relationship to the Geosciences. GEOL 4415, Past Global Changes (new name and revised focus) and GEOL 4416, Global Environmental Change, are capstone integrative courses intended for seniors who have completed most degree requirements.

Required Courses (18 cr)

GEOL 1100, 1100L	The Dynamic Earth, and Lab	4 cr
GEOL 1110	Physical Geology for Scientists Laboratory	1 cr
GEOL 2210	Earth in Space and Time	3 cr
GEOL 3315	Evolution of the Earth's Surface	4 cr
GEOL 4406	Environmental Geology	3 cr
GEOL 4416	Global Environmental Change	3 cr

Geotechnologies core courses—**Choose at least 2 courses from this list**

GEOL 4403,4403L	Principles of Geographic Information Systems, and Lab	3 cr
GEOL 4404	Advanced Geographic Information Systems	3 cr
GEOL 4407	Global Positioning Applications in Research	3 cr
GEOL 4409	Remote Sensing	3 cr

Note: students who earn a total of 19 credits in geotechnologies, including GEOL 2210 and these four Geotechnologies core courses, will have completed the Geotechnology minor.

Electives—choose at least 2 courses from this list (5-10 cr)

GEOL 3313	Earth Materials I	3 cr
GEOL 4402	Geomorphology	4 cr
GEOL 4403,4403L	Principles of Geographic Information Systems, and Lab	3 cr
GEOL 4404	Advanced Geographic Information Systems	3 cr
GEOL 4405	Volcanology	3 cr
GEOL 4407	Global Positioning Applications in Research	3 cr
GEOL 4409	Remote Sensing	3 cr
GEOL 4410	Science in American Society	2 cr
GEOL 4415	Quaternary Global Change	3 cr
GEOL 4417	General Soils	3 cr
GEOL 4420	Principles of Geochemistry	3 cr
GEOL 4421	Structural Geology	4 cr
GEOL 4430	Principles of Hydrogeology	3 cr
GEOL 4431	Geobiology and the History of Life	3 cr
GEOL 4450	Field Geology	6 cr
GEOL 4451	Field Methods in Environmental Sciences	3 cr
GEOL 4452	Sedimentation-Stratigraphy	4 cr
GEOL 4456	Geology of Idaho OR	3 cr
GEOL 4458	Geology of North America	3 cr
GEOL 4482	Independent Problems and Studies in Geology	3 cr

Cross-disciplinary Tracks (21 cr):

Students must choose one track from the following list (at least 21 credits):

- 1. Biological Systems:** 2000- through 4999-level courses in Biological Sciences, Geosciences (Earth Systems), Chemistry, and Sociology
- 2. Environmental Geochemistry:** 2000- through 4999-level courses in Chemistry, Geosciences, and Biological Sciences
- 3. Environmental Health:** 2000- through 4999-level courses in Biosciences, Sociology, Anthropology and Health Education
- 4. Environmental Policy and Management:** 2000- through 4999-level courses in Economics, Management, Political Science, Biological Sciences, History, Speech, and English
- 5. Global Environmental Change:** 2000- through 4999-level courses in Anthropology, Political Science, Geosciences (Earth Systems, Geotechnologies), and Sociology

Biological Systems Track (B.S.)

This track develops knowledge and skill in the biological sciences to complement the geoscience core. This track will train students interested in field-related positions who need to understand the environmental relations between geologic and living systems. The student must complete the required courses, plus electives to equal or exceed 21 credits.

Required (15-16 cr):**All of the following 3 courses**

BIOL 4416	Population and Community Ecology	3 cr
BIOL 4462	Freshwater Ecology	3 cr
BIOL 4489	Field Ecology	4 cr

2 of the following 7 courses (remaining courses may be taken as electives)

BIOL 2213	Fall Flora	2 cr
BIOL 2214	Spring Flora	2 cr
BIOL 4426	Herpetology	3 cr
BIOL 4427	Ichthyology	3 cr
BIOL 4438	Ornithology	3 cr
BIOL 4431	General Entomology	3 cr
BIOL 4441	Mammology	3 cr

Electives

SOC 3335	Population and Environment	3 cr
BIOL 3315	Introduction to Biometry	3 cr
BIOL 3337	Conservation of Natural Resources	3 cr
BIOL 4476	Ecology of Water Pollution	3 cr
HIST 4430	Environmental History	3 cr
ENVE 4404	Environmental Risk Analysis	3 cr
GEOL 4402	Geomorphology	4 cr
GEOL 4451	Field Methods in Environmental Sciences	3 cr
GEOL/HIST/POLS 4471	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 4420	Principles of Geochemistry	3 cr
CHEM 1112, 1112L	General Chemistry II, and Lab	4 cr
CHEM 2211	Inorganic Chemistry I	3 cr
CHEM 3301,3303	Organic Chemistry I, and Lab	4 cr
ENVE 4410	Introduction to Environmental Engineering	3 cr
BIOL 4432	Biochemistry	3 cr

Electives

BIOL 2221, 2221L	Introductory Microbiology and Lab	4 cr
CHEM 2232, 2234	Quantitative Analysis and Lab	4 cr
CHEM 3351	Physical Chemistry*	3 cr
CHEM 3352	Physical Chemistry*	3 cr
CHEM 4435	Environmental Chemistry	2 cr
ENVE 4404	Environmental Risk Analysis	3 cr
BIOL 4476	Ecology of Water Pollution	3 cr

GEOL 4451	Field Methods in Environmental Sciences	3 cr
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**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 2221,2221L	Introductory Microbiology, and Lab	4 cr
BIOL 4476	Ecology of Water Pollution	3 cr
ANTH 2230	Introduction to Biological Anthropology and Lab	4 cr
H E 4442	Environmental Health and Health Education	2 cr

Electives

H E 3383	Epidemiology	3 cr
SOC 2206	Sociological Methods	3 cr
SOC 2207	Social Statistics	3 cr
SOC 3330	Sociology of Health and Illness	3 cr
SOC 3335	Population and Environment	3 cr
ANTH 4408	Special Topics in Medical Anthropology	3 cr
BIOL/PHIL 2230	Bioethics	3 cr
BIOL 3315	Introduction to Biometry	3 cr
BIOL 4423	General Parasitology	3 cr
MATH 4459	Applied Multivariate Analysis	3 cr
GEOL/HIST/POLS 4471	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 4462	Issues in Business and Society	3 cr
POLS 4455	Environmental Politics and Policy	3 cr
POLS 4453	Public Policy Analysis	3 cr
ECON 3352	Environmental Economics	3 cr
BIOL 4416	Population and Community Ecology	3 cr

Electives

ECON 2201	Principles of Macroeconomics	3 cr
ECON 2202	Principles of Microeconomics	3 cr
ECON 4411	Political Economy	3 cr
ECON 4433	Economic Development	3 cr
POLS 4405	Administrative Process	3 cr
POLS 4409	Community and Regional Planning	3 cr
HIST 4430	Environmental History	3 cr

COMM 4452	Conflict Management	3 cr
PHIL 4430	Philosophy of Science	3 cr
SPCH 2208	Group Communication	3 cr
ENGL 3307	Professional and Technical Writing	3 cr
ENGL 3308	Business Communications	3 cr
MGT 2216	Business Statistics	3 cr
MGT 2217	Advanced Business Statistics	3 cr
GEOL/PHYS 4410	Science in American Society	2 cr
GEOL/HIST/POLS 4471	Historical Geography of Idaho	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 4402	Geomorphology	4 cr
GEOL 4415	Quaternary Global Change	3 cr
ANTH 4402	Ecological Anthropology	3 cr
BIOL 4416	Population and Community Ecology	3 cr
GEOL 4404	Advanced Geographic Information Systems	3 cr

Electives

ANTH 2250	Introduction to Sociocultural Anthropology	3 cr
ANTH 4493	Indigenous Conservation	3 cr
BIOL 3337	Conservation of Natural Resources	3 cr
GEOL 4415	Quaternary Global Change	3 cr
HIST 4430	Environmental History	3 cr
PHYS 3325	Introduction to Weather and Climate	3 cr
POLS 4453	Public Policy Analysis	3 cr
POLS 4433	Politics of Developing Nations	3 cr
POLS 4455	Environmental Politics and Policy	3 cr
SOC 2206	Sociological Methods	3 cr
SOC 2207	Social Statistics	3 cr
SOC 3335	Population and Environment	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*		
		variable
CHEM 1111, 1111L	General Chemistry I, and Lab	5 cr
CHEM 1112, 1112L	General Chemistry II, and Lab	4 cr
PHYS 1111	General Physics I	3 cr
	OR	
PHYS 2211	Engineering Physics I	4 cr
MATH 1160	Applied Calculus	3 cr
	OR	
MATH 1170, 1175	Calculus I, II (recommended)	8 cr

GEOL 1100, 1100L	The Dynamic Earth, and Lab	4 cr
	OR	
GEOL 1101	Physical Geology (recommended)	3 cr
GEOL 1110	Physical Geology for Scientists Lab	1 cr
GEOL 2202	Historical Geology	3 cr
GEOL 2210	Earth in Space and Time	3 cr
GEOL 3313	Earth Materials I	3 cr
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.

Minor in Geology

GEOL 1100	The Dynamic Earth	3 cr
	OR	
GEOL 1101	Physical Geology (recommended)	3 cr
GEOL 1110	Physical Geology for Scientists Laboratory	1 cr
GEOL 2202	Historical Geology	3 cr
GEOL 2210	Earth in Space and Time	3 cr
IN ADDITION:		
Upper Division Geology electives approved by the Department		12 cr
	TOTAL:	22 Geosciences credits

Minor in GeoTechnology

Core Courses:

GEOL 4403, 4403L	Principles of Geographic Information Systems, and Lab	3 cr
GEOL 4404	Advanced Geographic Information Systems	3 cr
GEOL 4407	Global Positioning Applications in Research	3 cr
GEOL 4408	GeoTechnology Seminar	2 cr
	OR	
BIOL 4418	Ecological Topics	1 cr
GEOL 4409	Remote Sensing	3 cr

Electives (at least 5 credits):

ANTH 4482	Independent Problems in Anthropology: Geographic Information Systems and Anthropology	1-3 cr
BIOL 4482	Independent Problems in Biology/GIS Applications	1-4 cr
CIS 4480	Data Base Management Systems	3 cr
GEOL 2210	Earth in Space and Time	3 cr
GEOL 4427	Information Technology for GIS	3 cr
GEOL 4428	Programming for GIS	2 cr
GEOL 4480	Special Topics in GIS	1-3 cr
GEOL 4481	GeoTechnology Internship	1-3 cr
GEOL 4482	Independent Problems and Studies in Geology	1-3 cr
	TOTAL:	19 cr

Geosciences Courses

GEOL 1100 The Dynamic Earth 3 credits. Understanding the Earth as a dynamic system. Explores the interaction between four major earth components: the solid earth, the atmosphere, the ocean and biological communities, including humans. Specific focus on climate change, natural hazards, and Earth resources. COREQ: GEOL 1100L. With GEOL 1100L, satisfies Goal 5 of the General Education Requirements. F, S, ASu

GEOL 1100L The Dynamic Earth 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 1100. With GEOL 1100, satisfies Goal 5 of the General Education Requirements. F, S, ASu

GEOL 1101 Physical Geology 3 credits. Geological fundamentals: rocks and minerals, geologic time, plate tectonics, earthquakes, volcanoes, surface processes, earth resources and climatic change. With GEOL 1101L or GEOL 1110, Satisfies Goal 5 of the General Education Requirements. F, S, ASu

GEOL 1101L Physical Geology Lab 1 credit. Classification and recognition of minerals and rocks, landforms on topographic maps and air photos. Geology of Pocatello area. PREREQ OR COREQ: GEOL 1101. With GEOL 1100 or 1101, satisfies Goal 5 of the General Education Requirements. F, S, ASu

GEOL 1110 Physical Geology for Scientists Laboratory 1 credit. Identification and classification of minerals, rocks, and fossils; introduction to geologic maps and plate tectonics. Field trips. Required for Geology majors. May be taken in place of GEOL 1100 or 1101L. PREREQ OR COREQ: GEOL 1100 or GEOL 1101. With GEOL 1100 or 1101, satisfies Goal 5 of the General Education Requirements. F, S

GEOL 1115 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 1115L. With GEOL 1115L, satisfies Goal 5 of the General Education Requirements. F, S, ASu

GEOL 1115L 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 1115. With GEOL 1115, satisfies Goal 5 of the General Education Requirements. F, S, ASu

GEOL 1122 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 2201 Rocks, Rails, and Trails 1 credit. Interaction between geology, geography 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 2202 Historical Geology 3 credits. Major events in earth history; continental drift, age dating, evolution of organisms, times of extinction, mountain building, episodes of world glaciation. PREREQ: GEOL 1100 or GEOL 1101. F

GEOL 2210 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: GEOL 1100 or GEOL 1101. PREREQ OR COREQ: GEOL 1110. F, S

GEOL 2282 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 1100 or GEOL 1101. Graded S/U. F, S, Su

GEOL 3313 Earth Materials I 3 credits. Introduction to physical and chemical composition of the earth, emphasizing minerals, mineral associations and mineral formation, and lab-based determinative methods of mineralogy from microscopic to planetary scales. PREREQ: GEOL 1110. PREREQ OR COREQ: CHEM 1111 and CHEM 1111L. F

GEOL 3314 Earth Materials II 3 credits. Classifications, processes and environments of formation of igneous, metamorphic and sedimentary rocks. Lab- and field-based determinative methods of rock identification, classification and interpretation. PREREQ: GEOL 2210 and GEOL 3313. S

GEOL 3315 Evolution of the Earth's Surface 4 credits. Evolution of the Earth's surface in recent geologic time. Physical and climatic processes that govern landscape evolution. Examination of landforms and landscapes to interpret paleo-environments and modern Earth surface processes. Lectures, discussions, laboratory exercises, and field trips. PREREQ: GEOL 1100 or GEOL 1101, and GEOL 1110. S

GEOL 4400 Practicum in Geology Teaching 1 credit. Practical problems in teaching geology in public schools. Lab and field trip design and safety, Internet resources, student projects. PREREQ: GEOL 2210. AF

GEOL 4402 Geomorphology 4 credits. Process-response approach to landforms and landscapes. Historical perspectives, endo- and exogenetic processes, equilibrium and relict landforms. Emphasis on interrelations among various geologic sub-disciplines. Field trips, some lab exercises. PREREQ: GEOL 3313, GEOL 3315, or consent of instructor. COREQ: GEOL 4402L. F

GEOL 4402L Geomorphology Lab 0 credits. Assignments to apply principles from GEOL 4402. F

GEOL 4403 Principles of Geographic Information Systems 3 credits. Study of GIS fundamentals, introduction to GPS, databases, and metadata. Practical application of ESRI ArcView®. Build, edit, and query a GIS; basic spatial analysis. Requires competence in computer operating systems. PREREQ: CIS 1101 or permission of instructor. COREQ: GEOL 4403L. F, S, W

GEOL 4403L Principles of GIS Laboratory 0 credit. Computer lab assignments to apply principles from GEOL 4403. COREQ: GEOL 4403. F

GEOL 4404 Advanced Geographic Information Systems 3 credits. Study of relational

databases, including spatial analysis, and remote sensing. Practical application of Arc/Info and Idrisi. Exercises include digitizing, querying, digital terrain modeling, and image processing. PREREQ: GEOL 4403 and GEOL 4403L or permission of instructor. S

GEOL 4405 Volcanology 3 credits. Aspects of physical and chemical volcanology: types of volcanoes; interpretation of volcanic deposits; properties of magma; generation, rise and storage of magma; volcanic hazards and prediction. PREREQ: One of: GEOL 3314, GEOL 4402, GEOL 4421 or GEOL 4452. AF

GEOL 4406 Environmental Geology 3 credits. Humans and the environment. Topics include: industrial exploitation of fossil fuels, energy sources, soils, water and other materials, environmental health, pollution, waste disposal, hazards, disasters, and land use. PREREQ: GEOL 1100 or GEOL 1101. F, W

GEOL 4407 GPS Applications in Research 3 credits. Overview of satellite positioning systems usage. Topics include GPS theory, basic mapping concepts, use of mapping grade receivers for GIS data collection, and processing of carrier phase data for high precision applications. S

GEOL 4408 GeoTechnology Seminar 2 credits. GIS applications in natural and social sciences; ethical and legal issues, current status and recent advances in GeoTechnology. Lectures, discussion, readings. PREREQ: GEOL 4403 and GEOL 4403L or permission of instructor. F, S

GEOL 4409 Remote Sensing 3 credits. Fundamentals and applications of single frequency, multispectral, and hyperspectral remote sensing for physical, natural, engineering, and social sciences. Emphasis on acquiring, processing, integrating, and interpretation of imagery. Requires competence in computer operating systems. S

GEOL 4410 Science in American Society 2 credits. Observational basis of science; technology's historical influences on scientific developments; perceptions of science in contemporary America; tools/strategies for teaching science. Cross-listed as PHYS 4410. PREREQ: Junior standing and permission of instructor. AF

GEOL 4411 Planetary Petrology 3 credits. Chemistry, mineralogy, tectonic association and petrogenesis of the principal igneous and metamorphic rock types on Earth and other planetary bodies. PREREQ: GEOL 3314. AF

GEOL 4412 Petrology Laboratory 2 credits. Microscopic identification of igneous and metamorphic minerals and rocks. PREREQ: GEOL 2210 and GEOL 3313; COREQ: GEOL 4411. AF

GEOL 4413 Sedimentary Rocks in Thin Section 2 credits. A variety of terrigenous, volcanoclastic, and carbonate rocks will be studied. PREREQ OR COREQ: GEOL 4411. AF

GEOL 4415 Quaternary Global Change 3 credits. Use and interpretation of landforms, sediments, and fossil life in the reconstruction of Quaternary events, environment, and climates. PREREQ: Permission of instructor. AS

GEOL 4416 Global Environmental Change 3 credits. Analysis of the causes and effects of both natural and human-induced environmental

change. Integrates knowledge from other Earth Systems Science courses, and examines and analyzes relevant problems in global environmental change using scientific methods. PREREQ: GEOL 1115, GEOL 1115L, GEOL 2210, GEOL 4406, and BIOL 2209. AS

GEOL 4417 General Soils 3 credits. Formation, morphology, and distribution of soils, including developments in soil classification. PREREQ: GEOL 1100, GEOL 1101 or GEOL 1115 or permission of instructor. S

GEOL 4420 Principles of Geochemistry 3 credits. Chemistry of the earth; discussion of factors controlling abundance, distribution, and migration of chemical elements within the earth. PREREQ: GEOL 3313, CHEM 1112, and CHEM 1112L, or permission of instructor. S

GEOL 4421 Structural Geology 4 credits. Structure of the earth's crust. Investigation of behavior of materials; identification and interpretation of earth structures. PREREQ: MATH 1147 or equivalent, and GEOL 4452. S

GEOL 4421L Structural Geology Laboratory 0 credits. Assignments to apply principles in GEOL 4421. S

GEOL 4422 Planetary Geology 3 credits. Formation of planetary bodies (planets, moons, asteroids and comets), internal and surficial processes, tectonics, and planetary exploration. PREREQ: GEOL 1100 or GEOL 1101 or permission of instructor. D, W

GEOL 4427 Information Technology for GIS 3 credits. Study of servers, networks, system administration, relational database design and management, spatial database engines, and serving maps on the internet. The course uses traditional lectures along with demonstrations and hands-on exercises. PREREQ: GEOL 4403 and GEOL 4403L or instructor approval. F

GEOL 4428 Programming for GIS 3 credits. Course introduces students Visual Basic programming for GIS. Students will learn the fundamentals of object oriented programming, rapid application development, basic coding, help documentation, and compiling. Students will complete a project where they develop a GIS utility of their choice. PREREQ: GEOL 4403 and GEOL 4403L and instructor approval. F

GEOL 4430 Principles of Hydrogeology 3 credits. Surface and groundwater occurrence, movement and recovery, water quality and pollution, well construction principles, and computer modeling. PREREQ: MATH 1147; and GEOL 1100 or GEOL 1101 or permission of instructor. F

GEOL 4431 Geobiology and the History of Life 4 credits. Principles of biology and geology applied to the study of fossil invertebrates. Consideration is given to morphology, classification, evolution, paleoecology, and the stratigraphic significance of fossils. PREREQ: Permission of instructor; GEOL 2202 recommended. F

GEOL 4431L Invertebrate Paleontology Lab 0 credits. Assignments to apply principles from GEOL 4431. F

GEOL4435 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 4435. PREREQ: GEOL 4431 or BIOL 3314 or equivalent. F

GEOL4439 Principles of Taphonomy 3 credits. Effects of processes which modify organisms between death and the time the usually fossilized remains are studied. Emphasis on vertebrates. Cross-listed as ANTH 4439, BIOL 4439. PREREQ: Permission of instructor. AS

GEOL 4440 Ore Deposits 3 credits. Nature, mode of occurrence, origin of ores with each type related to a given rock association and as the product of a particular environment. PREREQ: One of: GEOL 3314, GEOL 4452 (recommended), or GEOL 4421. AF

GEOL4445 Environmental and Engineering Geophysics 4 credits. Geophysical applications to environmental and geological engineering problems. Includes seismic, gravity, magnetic, electrical, and electromagnetic methods. (Includes lab.) PREREQ: MATH 1144 or MATH 1147, and GEOL 1100 or GEOL 1101, or permission of instructor. COREQ: GEOL 4445L. AF

GEOL 4445L Environmental and Engineering Geophysics 0 credits. Assignments to apply principles in GEOL 4445. COREQ: GEOL 4445. AF

GEOL 4450 Field Geology 6 credits. Five-week summer field camp, applying standard geologic field instruments and geologic concepts to a series of field problems. PREREQ: GEOL 3314 (recommended) or GEOL 4420; GEOL 4421 and GEOL 4452. Su

GEOL4451 Field Methods in Environmental Sciences 3 credits. Practical application of field methods with an Earth systems focus. Analysis of topographic and vegetational data, hydrologic methods, riverine processes and habitat, and soil characteristics, emphasizing use of GIS, GPS, remote sensing and other geotechnologies. Two-week summer course at Lost River Field Station. PREREQ: GEOL 4403, either GEOL 4415 or GEOL 4416, and BIOL 2209. Su

GEOL 4452 Sedimentation-Stratigraphy 4 credits. Principles of sedimentation from source to diagenesis. The basis of stratigraphic nomenclature, classification, and correlation of rock units. Laboratory covers unconsolidated sediment, hand specimens, and field techniques. PREREQ: GEOL 2210 and ENGL 1102 or permission of instructor. PREREQ OR COREQ: CHEM 1111 and CHEM 1111L. COREQ: GEOL 4452L. F

GEOL 4452L Sedimentation-Stratigraphy Laboratory 0 credits. Assignments to apply principles in GEOL 4452. COREQ: GEOL 4452. F

GEOL 4454 Basic Engineering Geology 3 credits. Geology applied to civil engineering projects; rock engineering classification systems and geotechnical parameters such as joint set orientation, ground behavior and underground construction. Preparation of baseline geotechnical reports. Cross-listed as CE 4454. COREQ: GEOL 3314 or CE 3332. D

GEOL4455 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 4455. PREREQ: CE 4454.D

GEOL 4456 Geology of Idaho 2 credits. Geologic provinces and plate tectonic history of Idaho. Topics include basement, Belt Supergroup, Phanerozoic passive margin, Cordilleran orogen, accreted terranes, Idaho batholith, Challis volcanics, Idaho mineral deposits, Basin and Range, Snake River Plain and Pleistocene floods. PREREQ: GEOL 1100 or GEOL 1101. AS

GEOL 4458 Geology of North America 3 credits. Regional stratigraphy and tectonics of North America emphasizing National Parks and the Intermountain West. Graduate students will do extensive additional reading in current literature. PREREQ: GEOL 1100 or GEOL 1101. AS

GEOL 4465 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 2210 or permission of instructor. AF

GEOL4471 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 4471 and POLS 4471. D

GEOL 4475 Essentials of Geomechanics 3 credits. Essentials of rock fracture relevant to geological engineering including stress and strain, properties and classification of rock masses, rock fracture mechanisms. Cross-listed as CE 4475. PREREQ: GEOL 4421 or ENGR 3350. D

GEOL 4476 Engineering Geology Project 1 credit. Team projects studying actual problems in engineering geology. Cross-listed as CE 4476. PREREQ: GEOL 4454 or CE 4454. D

GEOL4480 Special Topics in GIS 1-3 credits. Visual Basic programming for GIS. PREREQ: GEOL 4403 and GEOL 4403L and permission of instructor. F, S

GEOL 4481 GeoTechnology Internship 1-3 credits. Choose a project with either Natural Resource or municipal GIS emphasis and work with real-world data at the Internship's off-campus location. Projects focus on using/creating geotechnical data. PREREQ: GEOL 4403 and GEOL 4403L or permission of instructor. F, S

GEOL482 Independent Problems and Studies in Geology 1-3 credits. Investigation of a geologic problem chosen by the student and approved by the staff. May be repeated for up to 6 credits. D

GEOL 4483 Earthquake Engineering 3 credits. Mechanism and characterization of earthquakes; seismic risk analysis; site and structural response; applications from points of view of engineer and geologist. Cross-listed as CE 4480. PREREQ: GEOL 3313 or CE 3332, or permission of instructor. D

GEOL 4491 Seminar 1 credit. Field trip or discussion of current geologic literature and geologic problems. May be repeated for up to 3 credits. PREREQ: Permission of instructor. Graded S/U. F, S

GEOL4493 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

GEOL4497 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 History

Chair (Vacant)

Professors: A. Christelow, S. Christelow, Hale, Hatzenbuehler, Owens

Associate Professors: Kuhlman, Marsh, Woodworth-Ney

Assistant Professor: Hinman

Assistant Lecturer: Reinke

Adjunct Faculty: Emfield, James,

Maheras, 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.

Bachelor of Arts in History

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 1101 or HIST 1102)

HIST 1101	Foundations of Europe	3 cr
HIST 1102	Modern Europe	3 cr
HIST 2249	World Regional Geography	3 cr
HIST 2251	Latin America	3 cr
HIST 2252	East Asian History	3 cr
HIST 2254	Middle Eastern Civilization	3 cr
HIST 2255	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 2291	The Historian's Craft	3 cr
HIST 4491	Seminar	3 cr

Category III: Course for Teachers

The following course is designed expressly for education majors. It may be taken as elective credit under Category IV below, only if the prerequisites are satisfied.

HIST 4418	United States History for Teachers	3 cr
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Category IV: Upper Division United States History (6 credits)

Choose one 3000-level and one 4000-level course from the following list:

HIST 3307	Early North America	3 cr
HIST 3308	Industrialization and Reform in the United States	3 cr
HIST 3309	Modern United States	3 cr
HIST 4421	Federal Indian Relations	3 cr
HIST 4423	Idaho History	3 cr
HIST 4425	Women in the North American West	3 cr
HIST 4427	North American West	3 cr
HIST 4479	Disease and U.S. Public Health	3 cr

Category V: Upper division world, comparative, and non-U.S. history (6 credits)

HIST 3318	History of Christianity	3 cr
HIST 3322	Religious Reformation and Conflict	3 cr
HIST 3323	Old Regime and French Revolution	3 cr

HIST 3326	Twentieth Century Europe	3 cr
HIST 3382	Russia	3 cr
HIST 4429	International Relations since 1900	3 cr
HIST 4430	Global Environmental History	3 cr
HIST 4435	Colonial Frontiers	3 cr
HIST 4437	Families in Former Times	3 cr
HIST 4438	Women in Pre-industrial Europe	3 cr
HIST 4439	Women in History	3 cr
HIST 4441	The Viking Age	3 cr
HIST 4443	English History	3 cr
HIST 4444	Victorian England and After	3 cr
HIST 4446	Social and Economic History of Greece and Rome	3 cr
HIST 4448	Medieval Social and Economic History	3 cr
HIST 4450	Golden Age Castile	3 cr
HIST 4453	Renaissance Creativity	3 cr
HIST 4460	The Global Hispanic Monarchy	3 cr
HIST 4474	Islam and Nationalism in the Modern World	3 cr
HIST 4478	Imperialism and Progressivism	3 cr
HIST 4490,4490L	Cartography: History and Design, and Lab	4 cr

Category VI: Electives (9 credits)

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

HIST 2221	Greece and Rome	3 cr
HIST 2223	Medieval Europe	3 cr
HIST 3337	Archaeology and History of Southern Idaho	2 cr
HIST 3364	Public History Internship	1-6 cr
HIST 4405	Problems in History	3 cr
HIST 4461	Independent Study: United States*	1-3 cr
HIST 4462	Independent Study: Europe*	1-3 cr
HIST 4463	Independent Study: World Regions*	1-3 cr
ANTH 4410	Introduction to Cultural Resources Management	3 cr
ECON 3323	Economic History	3 cr
GEOL 4403,4403L	Principles of Geographic Information Systems, and Lab	3 cr
GEOL/HIST/POLS 4471	Historical Geography of Idaho	3 cr
HIST 4489	GIS for Social Sciences	3 cr
MATH 3350	Statistical Methods	3 cr
POLS 3313	Introduction to Political Philosophy	3 cr
POLS 4411	American Political Theory	3 cr
		TOTAL: 36 cr

**Note: Using more than one independent study class (4461, 4462, or 4463) to fulfill the requirements requires the permission of the History Chair.*

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 1101 or HIST 1102)

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

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

Students may use one of the above courses to satisfy Goal 10A of the General Education requirements.

Three additional 2000-4000 level courses in history 9 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.*

Minor in History

World Regions (9 credits, no more than 3 of which must be HIST 1101 or HIST 1102):

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

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

Students may use one of the above courses to satisfy Goal 10A of the General Education requirements.

Other Courses:

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

Teaching Majors and Minors

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.

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 1101 Foundations of Europe 3 credits. Historical development of Europe since ancient times as a world region and its expanding importance in the first global age, to 1700.

Satisfies Goal 10A of the General Education Requirements. D

HIST 1102 Modern Europe 3 credits. Europe's rise and decline as the dominant world region during the second global age, from 1700 to the present. Satisfies Goal 10A of the General Education Requirements. D

HIST 1111 U.S. History I (to 1865) 3 credits. Colonial origins and achievement of independence, constitutional government, national boundaries, and the preservation of the union. Satisfies Goal 9 of the General Education Requirements. F, S

HIST 1112 U.S. History II (to present) 3 credits. The domestic and international development of a plural, industrial society. Satisfies Goal 9 of the General Education Requirements. F, S

HIST 1118 U.S. History and Culture 3 credits. An introduction to U.S. history and culture, including cultural change over time. Satisfies Goal 9 of the General Education Requirements. F, S, Su

HIST 2221 Greece and Rome 3 credits. Social, political, economic and cultural developments of the Mediterranean world during Greek and Roman times. D

HIST 2223 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 2249 World Regional Geography 3 credits. Introduction to world regions, using a geographic perspective as a vehicle, through the principal themes of human geography including, but not limited to, the spatial distributions and interactions of history, culture, economy, population, and environment. Satisfies Goal 10A of the General Education Requirements. F, S, Su

HIST 2251 Latin America 3 credits. Historical development in its global context of Latin America as a world region, defined by the religion, political institutions, and languages brought by Iberian conquerors and characterized by the contributions of Native Americans, Africans, and Europeans. Satisfies Goal 10A of the General Education Requirements. D

HIST 2252 East Asian History 3 credits. The origins and growth of the distinctive cultures of China and Japan; their encounters with the West and different responses to Westernization, and their roles in the modern world. Satisfies Goal 10A of the General Education Requirements. D

HIST 2254 Middle Eastern Civilization 3 credits. Middle Eastern Civilization from the emergence of Islam to the present. Emphasis on fundamentals of Islamic culture and modern political and social developments. Satisfies Goal 10A of the General Education Requirements. D

HIST 2255 African History and Culture 3 credits. An introductory survey of Africa covering traditional political systems and culture, the impact of Christianity and Islam, the economic and political intrusion of Europe, and the development of economic and political crises in contemporary Africa. Satisfies Goal 10A of the General Education Requirements. D

HIST 2258 Native American History 3 credits. Assesses diversity of North American natives, their life and thought; European impact; federal policy; and natives' response to continual cultural and physical assault. Cross-listed as ANTH 2258. D

HIST 2291 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 4491. F, S

HIST 3307 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 3308 Industrialization and Reform in the United States 3 credits. 1820-1932. The emergence of industrialization in the early 19th century, the impact of the Civil War on industrialization, and industrialization's attendant political, social, cultural, and economic reforms and changes. Special attention paid to abolitionism, postwar reconstruction, and the Great Migration of African Americans to the industrialized North. R2

HIST 3309 Modern United States 3 credits. An historical examination of the United States from the 1930s to the present, focusing on the Great Depression, New Deal, World War II, the U.S. rise to global power, its maturation as a mass society, the rise and decline of liberalism and conservatism, the Civil Rights Movement, the Vietnam War, the changing nature of citizenship and culture, and the end of the Cold War. R2

HIST 3318 History of Christianity 3 credits. This course will survey the history of Christianity from its origins to its various expressions in the modern world. Special attention will be given to the initial formation of Christian traditions, the encounter of Christianity with intellectual and social trends in western history, and the periodic movements of reform which sought to refashion Christian life and institutions. D

HIST 3322 Religious 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 1101. D

HIST 3323 Old Regime and French Revolution 3 credits. A study of traditional European institutions, society, and culture from 1650 to 1789 and their transformation in the age of the French Revolution and Napoleon, 1789-1815. D

HIST 3326 Twentieth Century Europe 3 credits. Europe from World War II through the end of the Cold War. PREREQ: HIST 1102 or permission of instructor. D

HIST 3337 Archaeology and History of Southern Idaho 2 credits. A multicultural, ethnographic perspective on the history of the Snake River Plain. Course content focuses on the 1811 to 1890's time period and is rich in details based on information gathered from the

earliest accounts and historical archaeological fieldwork. D

HIST 3364 Public History Internship 1-6 credits. Faculty supervised placement in historical societies, museums, archives, government agencies, municipal departments, libraries or other institutions engaged in historical preservation, dissemination, and/or research. May be repeated for a maximum of 6 credits. D

HIST 3382 Russia 3 credits. Russian history and civilization from the medieval Kievan state to modern times. D

HIST 4405 Problems in History 3 credits. A thorough consideration of historical problems, particularly from a comparative perspective. Designed to give deeper insight into problems, issues, and topics which are treated more generally in other courses. May be repeated with different content. D

HIST 4418 United States History for Teachers 3 credits. U.S. history from indigenous cultures through modern America. Based on Idaho Department of Education Standards for High School Students. F, S

HIST 4421 Federal Indian Relations 3 credits. Legal-historical examination of the relationship between North American tribal peoples and the U.S. federal government between 1750 and the present. Special emphasis will be placed on Indian removal, assimilation policy, treaty negotiation, the Dawes Severalty Act, education policy, Indian reorganization policy, and termination. R2

HIST 4423 Idaho History 3 credits. A survey of the social, cultural, environmental, and political history of Idaho from pre-contact indigenous cultures to the present, emphasizing Idaho's relation to other states and regions in the West. F, S, Su

HIST 4425 Women in the North American West 3 credits. Comparative examination of the varied experiences of women in the North American West. Analyzes perceptions of women and women's views of themselves, women's activism, and women's cultural activities. Places special emphasis on the use of non-textual historical sources in uncovering the past lives of North American western women. R

HIST 4427 North American West 3 credits. History of the North American West from pre-contact indigenous cultures to the present, with an emphasis on exploration, settlement, ethnic groups, borderlands, environment, federal policy, and cultural depictions. R2

HIST 4429 Foreign Relations since 1900 3 credits. An introduction to the history of international relations in the twentieth century. This course emphasizes the impact of wars on various peoples and cultures, anti-colonialism and the rise of the so-called 'Third World,' and the processes of political, cultural and economic 'globalization.' R2

HIST 4430 Global Environmental History 3 credits. Comparative examinations of historical interactions between humans and environmental factors in various time periods and regions throughout the world, and an assessment of their impacts on historical change. R2

HIST 4435 Colonial Frontiers in America and Africa 3 credits. A comparative examination of

exploration, conquest, and resistance, and the interaction of cultures in frontier settings. Examines both the realities of the frontier and their impact on Western thought and imagination. D

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

HIST 4438 Women in Pre-Industrial Europe 3 credits. Compares and contrasts the social, cultural and economic roles of women from 700-1700 AD, and analyzes the impacts of historical change on their lives. D

HIST 4439 Women in History 3 credits. Comparative study of the history of women in different world regions. R2

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

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

HIST 4444 Victorian England and After 3 credits. England, 1837 to the present. An examination of the cultural, social, political, and economic history of the most prosperous and productive period of English history including British national and imperial decline in the twentieth century. D

HIST 4446 Social and Economic History of Greece and Rome 3 credits. Investigates ways in which geography, demography and politics affected the mentalities and behaviors of social groups—women, patrons, clients and slaves—and the functioning of households, villages and cities. D

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

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

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

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

HIST 4461 Independent Study: United States 1-3 credits. Selected readings in areas and periods not covered by the regular curriculum offerings. PREREQ: Previous upper-division course work in the subject area with a minimum grade of A-; GPA of 3.5 in all history courses; permission of the instructor, and approval by the Department Chair. D

HIST 4462 Independent Study: Europe 1-3 credits. Selected readings in areas and periods not covered by the regular curriculum offerings. PREREQ: Previous upper-division course work in the subject area, with a minimum grade of A-; GPA of 3.5 in all history courses; permission of the instructor; and approval by the Department Chair. D

HIST 4463 Independent Study: World Regions 1-3 credits. Selected readings in areas and periods not covered by the regular curriculum offerings. PREREQ: Previous upper-division course work in the subject area, with a minimum grade of A-; GPA of 3.5 in all history courses; permission of the instructor; and approval by the Department Chair. D

HIST 4465 U.S. Political History 3 credits. Study of the political history of the United States involving a discussion of theories of popular voting behavior, critical elections, and political party systems. Cross-listed as POLS 4465. R2

HIST 4471 Historical Geography of Idaho 3 credits. Influences of geography and geology on Idaho's economic, political and cultural history. May be team taught and include field trips, discussion sections. Cross-listed as GEOL 4471 and POLS 4471. AS

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

HIST 4478 Imperialism and Progressivism 3 credits. A study of the world 1880-1920. Movements of change within the West, Third World responses to the Western challenge, and global crisis. D

HIST 4479 Disease and U.S. Public Health 3 credits. A survey of health, disease, and public health developments in American history. The course takes a broad approach to health, but includes the development of public health offices, the role of disease in society, specific diseases and related eradication programs, and questions related to health, equity, and civil liberties. R2

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

HIST 4490 Cartography: History and Design 3 credits. History of how map-makers represent geographic, spatial data. Special attention to the elements of successful cartographic design. F, S

HIST 4490L Cartography Lab 1 credit. Focuses on the application of Cartographic design concepts and techniques discussed in lecture. Provides students with hands-on practice designing map products of publication quality. PREREQ: Admission to the Historical Resources Management Program, or permission of instructor. F, S

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

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

Idaho Museum of Natural History

Interim Director, Research Curator,
Anthropology Division Head, and
Director, Earl R. Swanson Archaeological Repository: Maschner
Research Curator and Earth Sciences
Division Head: Tapanila
Research Curator, Life Science Division
Head, and Curator, Ray J. Davis
Herbarium: Williams
Affiliate Research Curator and Director,
Crabtree Experimental Archaeology
Lab: Holmer
Education Resources Coordinator:
Thorne-Ferrel
Earl R. Swanson Archaeological
Repository Manager:
Commendador-Dudgeon
Emeriti: Akersten, Holte, Trost

Museum Courses

MUSE 4411 Basic Museology 2 credits. History, philosophy, purposes, organization and administration of museums. Practical work in collections management and museum interpretation. D

MUSE 4450 Independent Study in Museum Methods 1-3 credits. Individual projects based on student's background and interests. Could include, but not limited to, advanced work in collections management, exhibit design and construction, museum education, or administration. May be repeated for up to 6 credits. PREREQ: MUSE 4411 or permission of instructor. D

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 2221 Introduction to International Relations (with at least a C grade);
3. A minimum of 24 credit hours with at least a 2.25 grade point average;
4. A signed agreement with the International Studies Program Director for advising.

Program Requirements

The following courses may be taken as part of the general education requirements of the University:

1. Sixteen (16) credits of a modern foreign language (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 2201, Principles of Macroeconomics (3 credits).

Major Requirements

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

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

1. Required Courses--Nine (9) credits:

IS 2200	Simulation*	1 cr
IS 4400	Simulation*	1 cr
IS 4493	Senior Thesis	4 cr
POLS 2221	Introduction to International Relations	3 cr

*May be repeated once

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

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

A. Political and Economic Development

This area of concentration has as its focus issues of political and economic development in those parts of the world which at once seek the possibility of change and are threatened by change. Eighteen (18) credits are to be selected from the following list and approved by your advisor. No more than twelve (12) of these required eighteen credits are to be taken from any one department's offerings.

Anthropology

ANTH 2250	Introduction to Sociocultural Anthropology	3 cr
ANTH 4402	Ecological Anthropology	3 cr

Economics*

ECON 3334	International Economics	3 cr
ECON 4433	Economic Development	3 cr
ECON 4472	Comparative Economic Systems	3 cr

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

History

HIST 2251	Latin America	3 cr
HIST 2252	East Asian History	3 cr
HIST 2254	Middle Eastern Civilization	3 cr
HIST 2255	African History and Culture	3 cr
HIST 3382	Russian History	3 cr
HIST 4430	Global Environmental History	3 cr
HIST 4474	Islam and Nationalism in the Modern World	3 cr
HIST 4478	Imperialism and Progressivism	3 cr

Political Science

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

*in consultation with your advisor and when the topic relates to political and economic development.

Sociology

SOC 3335	Population and Environment	3 cr
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B. Language, Literature, and Culture

This area of concentration is for those wishing to study the language, literature, and culture of societies other than the United States. It is limited to concentrations in French, German, Japanese, Russian, and Spanish. No more than twelve (12) of the required eighteen (18) credits may be taken from the offerings of a single department.

French

CMLT 2207	Contemporary European Culture	3 cr
FREN 3301,3302	French Conversation and Composition I and II	6 cr
FREN 3341,3342	Survey of French Literature and Civilization I and II	6 cr
FREN 3381	French Current Affairs	3 cr
FREN 4410	Seventeenth Century French Literature	3 cr
FREN 4400	French Advanced Grammar	3 cr
FREN 4420	Eighteenth Century French Literature	3 cr
FREN 4450	Twentieth Century French Literature	3 cr
FREN 4430	French Romanticism	3 cr
FREN 4440	French Realism and Naturalism	3 cr
FREN 4470	Readings in French	2 cr
FREN 4480	Independent Studies in French	3 cr
FREN 4490	French Senior Seminar	3 cr
HIST 2255	African History and Culture	3 cr
HIST 3323	Old Regime and French Revolution	3 cr
HIST 3326	Twentieth Century Europe	3 cr
POLS 4435*	Topics in National/Regional Studies	3 cr

*(in consultation with your advisor and when the topic relates to this area of concentration)

German

CMLT 2207	Contemporary European Culture	3 cr
GERM 3301-3302	German Conversation and Composition	6 cr
GERM 3341-3342	Survey of German Literature and Civilization	6 cr
GERM 3381	German Current Affairs	3 cr
	Naturalism	3 cr
GERM 4400	German Advanced Grammar	3 cr
GERM 4410	Survey of German Poetry	3 cr
GERM 4420	The Age of Goethe	3 cr
GERM 4430	German Romanticism	3 cr
GERM 4440	German Realism and Modern German Literature	3 cr
GERM 4470	Readings in German	2 cr
GERM 4480	Independent Studies in German	3 cr
GERM 4490	German Senior Seminar	3 cr
HIST 3326	Twentieth Century Europe	3 cr
POLS 4435*	Topics in National/Regional Studies	3 cr

*(in consultation with your advisor and when the topic relates to this area of concentration)

Japanese

HIST 2252	East Asian History	3 cr
JAPN 3301,3302	Japanese Conversation and Composition I and II	6 cr
JAPN 3341,3342	Survey of Japanese Literature I and II	6 cr
JAPN 4470	Readings in Japanese	2 cr
POLS 4432	Comparative Politics: Change and Political Order	3 cr

POLS 4435*	Topics in National/Regional Studies	3 cr
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**(in consultation with your advisor and when the topic relates to this area of concentration)*

Russian

CMLT 2207	Contemporary European Culture	3 cr
HIST 3326	Twentieth Century Europe	3 cr
HIST 3382	Russian History	3 cr
POLS 4432	Comparative Politics: Change and Political Order	3 cr
POLS 4435*	Topics in National/Regional Studies	3 cr
RUSS 3301,3302	Russian Conversation and Composition I and II	6 cr
RUSS 4470	Readings in Russian	2 cr

**(in consultation with your advisor and when the topic relates to this area of concentration)*

Spanish

CMLT 2207	Contemporary European Culture	3 cr
HIST 2251	Latin American Civilization	3 cr
HIST 4450	Golden Age Castile	3 cr
HIST 4460	Global Hispanic Monarchy	3 cr
SPAN 3301-3302	Spanish Conversation and Composition	6 cr
SPAN 3341-3342	Survey of Spanish and Latin American Literature	6 cr
SPAN 3381	Spanish Current Affairs	3 cr
SPAN 4400	Spanish Advanced Grammar	3 cr
SPAN 4410	Spanish Medieval through Golden Age Literature	3 cr
SPAN 4422	Colonial Spanish American Literature	3 cr
SPAN 4425	Nineteenth Century Spanish American Literature	3 cr
SPAN 4430	Spanish Enlightenment and Romanticism	3 cr
SPAN 4440	Spanish Realism Through Generation of '98	3 cr
SPAN 4450	Twentieth Century Spanish Literature	3 cr
SPAN 4462	Early Twentieth Century Spanish American Literature	3 cr
SPAN 4465	Contemporary Spanish American Literature	3 cr
SPAN 4470	Readings in Spanish	2 cr
SPAN 4480	Independent Studies in Spanish	3 cr
SPAN 4490	Spanish Senior Seminar	3 cr
POLS 4432	Comparative Politics: Change and Political Order	3 cr
POLS 4433	Politics of Developing Nations	3 cr
POLS 4435*	Topics in National/Regional Studies	3 cr

**(in consultation with your advisor and when the topic relates to this area of concentration)*

C. The United States and World Affairs

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

Communication and Rhetorical Studies

COMM 4452	Conflict Management	3 cr
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Economics

ECON 3334	International Economics	3 cr
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History

HIST 3309	Modern United States	3 cr
HIST 4429	Foreign Relations Since 1900	3 cr

Political Science

POLS 3326	Recent American Foreign Policy	3 cr
POLS 4403	The Presidency	3 cr
POLS 4404	The Legislative Process	3 cr

POLS 4425*	Topics in International Politics	3 cr
POLS 4434	Terrorism and Political Violence	3 cr
POLS 4453	Public Policy Analysis	3 cr

**(in consultation with your advisor and when the topic relates to American foreign policy)*

3. Electives

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

Anthropology

ANTH 4423	Anthropology of International Health	3 cr
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Business

FIN 4475	International Corporate Finance	3 cr
MGT 4465	International Business	3 cr
MKTG 4465	International Marketing	3 cr

Communication and Rhetorical Studies

COMM 4447	Rhetoric of Hitler and Churchill	3 cr
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English

ENGL 4455/CMLT 4415	Studies in National Literature	3 cr
ENGL 4456	Comparative Literature	3 cr

History

HIST 2223	Medieval Europe	3 cr
HIST 4435	Colonial Frontiers in America and Africa	3 cr
HIST 4441	The Viking Age	3 cr
HIST 4443	English History	3 cr
HIST 4444	Victorian England and After	3 cr
HIST 4448	Medieval Social and Economic History	3 cr
HIST 4478	Imperialism and Progressivism	3 cr
HIST 4490	Cartography: History and Design	3 cr

International Studies

IS 2200	Simulation	1 cr
IS 3300	Travel and Study Abroad	3 or 6 cr
IS 3301	Seminar: the International World	1-3 cr
IS 3350	International Symposium	1 cr
IS 4400	Simulation	1 cr

Political Science

POLS 4492*	Seminar	1-3 cr
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**(in consultation with your advisor and when the topic relates to International Studies)*

Sociology

SOC 3368	Sociology of Religion	3 cr
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Minor in International Studies**General Requirements**

- Eight (8) credits in a foreign language or the equivalent demonstrated competency.
- Economics 2201 (3 credits).

Minor Requirements

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

Required Courses:

POLS 2221	Introduction to International Relations	3 cr
IS 2200	Simulation	1 cr
IS 4400	Simulation	1 cr

Electives

Eighteen (18) credits selected from any of the courses listed in the categories ([1] Required Courses, [2] Areas of Concentration, and [3] Electives) under Major Requirements.

International Studies Courses

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

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

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

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

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

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

Department of Languages and Literatures

Chair: (Vacant)

Professors: Park, Sieber

Associate Professors: Hunt, Tarp

Senior Lecturers: Heath, Stewart

Assistant Lecturers: Dillon, Fukuoka,

McCurry, Robredo, Yonk

Adjunct Faculty: Alvarez, Johnsen,

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 1101).

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 2207, Contemporary European Culture; CMLT 2208, Cultures of the Spanish-Speaking World; CMLT 2209, 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 1101 and 1102 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 2201, or 16 credits plus SPAN 3301). No C.L.E.P. exams are available for other languages. For further information, see the department secretary..

Other Language Exams

Students who have learned languages other than French, German, or Spanish may 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 3000 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.

Major in French

CMLT 2207	Contemporary European Culture	3 cr
CMLT 3360	Literary Theory	3 cr
FREN 2201-2202	Intermediate French (or equivalent high school courses or experience)	8 cr
FREN 3301-3302	French Conversation and Composition	6 cr
FREN 3341-3342	Survey of French Literature and Civilization AND	6 cr
Upper-division FREN, CMLT, or LANG courses other than LANG 4437, four of which must be taught in French		18 cr

Major in German

CMLT 2207	Contemporary European Culture	3 cr
CMLT 3360	Literary Theory	3 cr
GERM 2201-2202	Intermediate German (or equivalent high school courses or experience)	8 cr
GERM 3301-3302	German Conversation and Composition	6 cr
GERM 3341-3342	Survey of German Literature and Civilization AND	6 cr
Upper-division GERM, CMLT, or LANG courses other than LANG 4437, four of which must be taught in German		18 cr

Major in Spanish

CMLT 2207	Contemporary European Culture	3 cr
CMLT 2208	OR Cultures of the Spanish-speaking World	3 cr
CMLT 3360	Literary Theory	3 cr

SPAN 2201-2202	Intermediate Spanish (or equivalent high school courses or experience)	8 cr
SPAN 3301-3302	Spanish Conversation and Composition	6 cr
SPAN 3341-3342	Survey of Spanish and Latin American Literature and Civilization AND	6 cr
Upper-division SPAN, CMLT, or LANG courses other than LANG 4437, 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 2207	Contemporary European Cultures	3 cr
CMLT 2208	Cultures of the Spanish-Speaking World	3 cr
CMLT 2220	Introduction to International Film Studies	3 cr

2) The following courses in the chosen
major language (15 cr)

3301, 3302	Conversation and Composition I, II	6 cr
3341, 3342	Survey of Literature and Civilization I, II	6 cr
3381	Current Affairs	3 cr

3) FREN 4465, GERM 4460, or SPAN 4460
Translation and Interpretation (3 cr)

5) Four upper-division electives (12 cr):

-Three taught in the major language

-The fourth in the major language or an
upper-division course with a CMLT or
LANG prefix

6) One of the following minors* offered
by the College of Business:

Business ((for Non-Business Majors
only) 18 cr

-Computer Information Systems 18 cr

-Business Administration (for Non-
Business Majors only) 33 cr

-Marketing (for Non-Business Majors
only) 18 cr

*See the detailed listings of requirements for the
three minors in the College of Business section of
the catalog.

Minor in French

CMLT 2207	Contemporary European Cultures	3 cr
FREN 2201-2202	Intermediate French (or equivalent high school courses or experience)	8 cr
FREN 3301-3302	French Conversation and Composition AND	6 cr

Upper-division FREN, CMLT, or LANG courses
other than LANG 4437, one of which must be taught
in French 6 cr

Minor in German

CMLT 2207	Contemporary European Cultures	3 cr
GERM 2201-2202	Intermediate German (or equivalent high school courses or experience)	8 cr
GERM 3301-3302	German Conversation and Composition AND	6 cr

Upper-division GERM, CMLT, or LANG courses
other than LANG 4437, one of which must be taught
in German 6 cr

Minor in Japanese

CMLT 2209	Cultures of Asia	3 cr
JAPN 2201-2202	Intermediate Japanese (or equivalent high school courses or experience)	8 cr
JAPN 3301-3302	Japanese Conversation and Composition AND	6 cr

Upper-division JAPN, CMLT, or LANG courses
other than LANG 4437, one of which must be taught
in Japanese 6 cr

Minor in Russian

CMLT 2207	Contemporary European Cultures	3 cr
RUSS 2201-2202	Intermediate Russian (or equivalent high school courses or experience)	8 cr
RUSS 3301-3302	Russian Conversation and Composition AND	6 cr

Upper-division RUSS, CMLT, or LANG courses
other than LANG 4437, one of which must be taught
in Russian 6 cr

Minor in Spanish

CMLT 2207	Contemporary European Cultures	3 cr
SPAN 2201-2202	Intermediate Spanish (or equivalent high school courses or experience)	8 cr
SPAN 3301-3302	Spanish Conversation and Composition AND	6 cr

Upper-division SPAN, CMLT, or LANG courses
other than LANG 4437, one of which must be taught
in Spanish 6 cr

Associate of Arts Degree

Students seeking an Associate of Arts
degree in French, German, Japanese,
Latin, Russian, Shoshoni or Spanish must
complete the following:

ANTH/ENGL/LANG 1107	The Nature of Language	3 cr
ENGL 1110	Introduction to Literature	3 cr
ENGL 2211	Introduction to Literary Analysis	3 cr
All of the General Education Goals (including 10A and 10B, using the courses below)		37-53* cr

Choose one course (for Goal 10A):

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

Choose one set (for Goal 10B):

FREN 1101-1102	Elementary French	8 cr
FREN 2201-2202	Intermediate French	8 cr
GERM 1101-1102	Elementary German	8 cr
GERM 2201-2202	Intermediate German	8 cr
JAPN 1101-1102	Elementary Japanese	8 cr
JAPN 2201-2202	Intermediate Japanese	8 cr
LATN 1101-1102	Elementary Latin	8 cr
LATN 2201-2202	Intermediate Latin	8 cr

RUSS 1101-1102	Elementary Russian	8 cr
RUSS 2201-2202	Intermediate Russian	8 cr

SHOS 1101-1102	Elementary Shoshoni	8 cr
SHOS 2201-2202	Intermediate Shoshoni	8 cr

SPAN 1101-1102	Elementary Spanish	8 cr
SPAN 2201-2202	Intermediate Spanish	8 cr

Electives to bring total to 64 cr variable
TOTAL: 64 cr

*The number of credits required for the General Edu-
cation requirements varies depending on the student's
performance on proficiency or placement tests in
English, foreign languages, and mathematics.

Arabic Courses

ARBC 1101 Elementary Arabic I 4 credits.

Basic communication skills and grammatical
structures of Arabic and introduction to cultures
of Arabic-speaking countries. Practice in the
language laboratory is required. With ARBC
1102, satisfies Goal 10B of the General Educa-
tion Requirements. D

ARBC 1102 Elementary Arabic II 4 credits.

Continuation of ARBC 1101 Practice in the
language laboratory is required. PREREQ:
ARBC 1101 or equivalent. With ARBC 1101,
satisfies Goal 10B of the General Education
Requirements. D

ARBC 2201 Intermediate Arabic I 4 credits.

Extensive review of grammatical structures and
continued emphasis on developing students'
communication skills in Arabic. Contrastive
study of culture as reflected in the Arabic lan-
guage. Practice in the language laboratory is
required. PREREQ: ARBC 1102 or equivalent.
With ARBC 2202, satisfies Goal 10B of the
General Education Requirements. D

ARBC 2202 Intermediate Arabic II 4 credits.

Continuation of ARBC 2201. Practice in the
language laboratory is required. PREREQ:
ARBC 1102 or equivalent. With ARBC 2201,
satisfies Goal 10B of the General Education
Requirements. D

ARBC 2205 Study Abroad 3-6 credits.

Available only through study overseas. Develop-
ment of intermediate-level communicative compe-
tencies in speaking, listening, reading, and writing, and of
cultural awareness through exposure to customs,
traditions, places, and peoples. Graded S/U. D

Chinese Courses

CHNS 1101 Elementary Chinese I 4 credits. Basic communication skills and grammatical structures in Chinese and introduction to the culture of Mandarin Chinese-speaking peoples. Practice in the language laboratory is required. With CHNS 1102, satisfies Goal 10B of the General Education Requirements. D

CHNS 1102 Elementary Chinese II 4 credits. Continuation of CHNS 1101. Practice in the language laboratory is required. PREREQ: CHNS 1101 or equivalent. With CHNS 1101, satisfies Goal 10B of the General Education Requirements. D

CHNS 2201 Intermediate Chinese I 4 credits. Extensive review of grammatical structures and continued emphasis on developing communication skills in Chinese. Contrastive study of culture as reflected in the Chinese language. Practice in the language laboratory is required. PREREQ: CHNS 1102 or equivalent. With CHNS 2202, satisfies Goal 10B of the General Education Requirements. D

CHNS 2202 Intermediate Chinese II 4 credits. Continuation of CHNS 2201. PREREQ: CHNS 1102 or equivalent. With CHNS 2201, satisfies Goal 10B of the General Education Requirements. D

CHNS 2205 Study Abroad 3-6 credits. Available only through study overseas. Development of intermediate-level communicative competencies in speaking, listening, reading, and writing, and of cultural awareness through exposure to customs, traditions, places, and peoples. Graded S/U. D

Comparative Literature Courses

CMLT 2207 Contemporary European Culture 3 credits. European culture in French, German, and Spanish-speaking countries is examined in terms of its historical bases and its contemporary expressions in customs, institutions, lifestyles, literature, art, and music. Taught in English. Satisfies Goal 10A of the General Education Requirements. S

CMLT 2208 Cultures of the Spanish-Speaking World 3 credits. Topics in art, history, literature and film of Spain, Spanish-America and Latino USA. Taught in English. Satisfies Goal 10A of the General Education Requirement. F, S

CMLT 2209 Cultures of Asia 3 credits. Overview of the cultures of China, Japan, and Korea, intended to help the student understand each within the framework of East Asian civilization, their historical importance and the crucial role they play in the world today. Satisfies Goal 10A of the General Education Requirements. F

CMLT 2220 Introduction to International Film Studies 3 credits. An introduction to the world of international film and the cultural, historical, and artistic issues the art form embodies. Focus on interpretations of nationality and multiculturalism through the medium of film. D

CMLT 3335 World Film Studies 3 credits. Based on the premise of film as text. Examines the creative process, aesthetic principles, and historical background, through the screening of

representative films and the reading of theory and critical analysis of European, Francophone, African and Latin American cinema. Taught in English. PREREQ: CMLT 2220 or permission of instructor. D

CMLT 3360 Critical Theory 3 credits. The application of critical theory to the reading of world literature. Taught in English. PREREQ: ENGL 1102. D

CMLT 4415 Studies in National Literatures 3 credits. Studies in important literatures and cultures not covered by regular course offerings. May include literatures in translation and literature written in English outside of America and the British Isles. Cross-listed as ENGL 4455. May be repeated for up to 6 credits with different content. D

CMLT 4435 Topics in World Film Studies 3 credits. Rotating topics in world film studies. Consult Class Schedule for topic being taught. May be repeated with different content. PREREQ: Permission of instructor. D

CMLT 4488 Comparative Literature Seminar 3 credits. Advanced work in the areas of cultural studies, literature, and research methods. May be conducted in English. May be repeated for up to 6 credits with different content. PREREQ: Permission of instructor. D

French Courses

FREN 1101 Elementary French I 4 credits. Intended to teach students basic communication skills and grammatical structures in French and to acquaint them with the culture of the French-speaking countries. Practice in the language laboratory is required. With FREN 1102, satisfies Goal 10B of the General Education Requirements. F, S

FREN 1102 Elementary French II 4 credits. Intended to teach students basic communication skills and grammatical structures in French and to acquaint them with the culture of the French-speaking countries. Practice in the language laboratory is required. PREREQ: FREN 1101 or equivalent. With FREN 1101, satisfies Goal 10B of the General Education Requirements. F, S

FREN 2201 Intermediate French I 4 credits. Extensive review of grammatical structures and continued emphasis on developing students' communication skills in French. Contrastive study of culture as reflected in the French language. Practice in the language laboratory is required. PREREQ: FREN 1102 or equivalent. With FREN 2202, satisfies Goal 10B of the General Education Requirements. F

FREN 2202 Intermediate French II 4 credits. Extensive review of grammatical structures and continued emphasis on developing students' communication skills in French. Contrastive study of culture as reflected in the French language. Practice in the language laboratory is required. PREREQ: "C" or better in FREN 1102 or equivalent. With FREN 2201, satisfies Goal 10B of the General Education Requirements. S

FREN 2205 Study Abroad 3-6 credits. Available only through study overseas. Development of intermediate-level communicative competencies in speaking, listening, reading, and writing, and of

cultural awareness through exposure to customs, traditions, places, and peoples. Graded S/U. D

FREN 3301 French Conversation and Composition I 3 credits. Intensive practice speaking and writing French in forms and styles common to economics, politics, science, society, the arts and creative writing of the French-speaking world. PREREQ: FREN 2202 or equivalent. F

FREN 3302 French Conversation and Composition II 3 credits. Intensive practice speaking and writing French in forms and styles common to economics, politics, science, society, the arts and creative writing of the French-speaking world. PREREQ: FREN 2202 or equivalent. S

FREN 3303 Professional French 3 credits. Intensive practice speaking, reading and writing in French in business, medical, legal, or other professions. PREREQ: FREN 2202 or equivalent experience. Can be repeated for up to 6 credits with different content. D

FREN 3305 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 3341 Survey of French Literature and Civilization I 3 credits. Comprehensive overview of the main currents of French cultural history and literature. Conducted in French. PREREQ: FREN 2202 or equivalent. D

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

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

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

FREN 4410 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. D

FREN 4420 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. D

FREN 4430 French Romanticism 3 credits. Study of the prose, poetry, and drama of the period: Lamartine, Musset, Vigny, Hugo, and others. Conducted in French. PREREQ: Permission of instructor. D

FREN 4440 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. D

FREN 4450 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. D

FREN 4455 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. D

FREN 4460 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. Conducted in French. PREREQ: Permission of instructor. D

FREN 4465 French Translation and Interpretation 3 credits. Theory and principles of translation and/or interpretation and their application in the fields of literature, business, law, and medicine. Topics may vary. May be repeated once with a different content. PREREQ: Permission of instructor. D

FREN 4470 Readings in French 2 credits. Reading, discussion, and preparation of reports on selected topics in French literature. May be repeated for up to 4 credits with different content. Conducted in French. PREREQ: Permission of instructor. D

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

FREN 4490 French Senior Seminar 3 credits. Advanced studies in selected topics from language, culture, literatures or methods of research. May be repeated for up to 6 credits with different content. Conducted in French. Permission of instructor. D

FREN 4493 French Internship 1-3 credits. Internship coordinated by faculty providing significant exposure to the use of French in a professional environment. May be repeated for up to 3 credits. Graded S/U. D

German Courses

GERM 1101 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 1102, satisfies Goal 10B of the General Education Requirements. F, S

GERM 1102 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. PREREQ: GERM 1101 or equivalent. With GERM 1101, satisfies Goal 10B of the General Education Requirements. F, S

GERM 2201 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. PREREQ: GERM 1102 or equivalent. With GERM 2202, satisfies Goal 10B of the General Education Requirements. F

GERM 2202 Intermediate German II 4 credits. Extensive review of grammatical structures and continued emphasis on developing students' communication skills in German. Contrastive study of culture as reflected in the German language. Practice in the language laboratory is required. PREREQ: GERM 1102 or equivalent. With GERM 2201, satisfies Goal 10B of the General Education Requirements. S

GERM 2205 Study Abroad 3-6 credits. Available only through study overseas. Development of intermediate-level communicative competencies in speaking, listening, reading, and writing, and of cultural awareness through exposure to customs, traditions, places, and peoples. Graded S/U. D

GERM 3301 German Conversation and Composition I 3 credits. Students work toward mastery of German through readings, compositions, discussions and oral presentations. Subject matter centers on business, science, politics, and society. PREREQ: GERM 2202 or equivalent. F

GERM 3302 German Conversation and Composition II 3 credits. Students work toward mastery of German through readings, compositions, discussions and oral presentations. Subject matter centers on business, science, politics, and society. PREREQ: GERM 2202 or equivalent. S

GERM 3303 Professional German 3 credits. Intensive practice speaking, reading and writing German in business, medical, legal, or other professions. May be repeated for up to 6 credits with different content. PREREQ: GERM 2202 or equivalent experience. D

GERM 3305 Study Abroad 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 3341 Survey of German Literature and Civilization 3 credits. Comprehensive overview of the main currents of German cultural history and literature. Conducted in German. PREREQ: GERM 2202 or equivalent. D

GERM 3342 Survey of Austrian and Swiss Literature 3 credits. Comprehensive overview of the main currents of Swiss and Austrian cultural history and literature. PREREQ: GERM 2202 or equivalent. D

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

GERM 4405 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. D

GERM 4415 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. D

GERM 4420 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. D

GERM 4425 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. D

GERM 4435 German Culture through Film 3 credits. Examination of German politics, culture and identity through German film. Conducted in German. PREREQ: Permission of instructor. D

GERM 4445 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. D

GERM 4455 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. D

GERM 4460 German Translation and Interpretation 3 credits. Theory and principles of translation and/or interpretation and their application in the fields of literature, business, law, and medicine. Topics may vary. May be repeated once with different content. PREREQ: Permission of instructor. D

GERM 4470 Readings in German 2 credits. Reading, discussion, and writing on selected topics in German literature. May be repeated for up to 4 credits with different content. Conducted in German. PREREQ: Permission of instructor. D

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

GERM 4490 German Senior Seminar 3 credits. Advanced studies in selected topics from language, culture, literatures or methods of research. May be repeated for up to 6 credits with different content. Conducted in German. PREREQ: Permission of instructor. D

GERM 4493 German Internship 1-3 credits. Internship coordinated by faculty providing significant exposure to the use of German in a professional environment. May be repeated for up to 3 credits. Graded S/U. D

Japanese Courses

JAPN 1101 Elementary Japanese I 4 credits. Basic communication skills, grammatical structures, and acquaintance with culture in Japan. Practice in the language laboratory is required. With JAPN 1102, satisfies Goal 10B of the General Education Requirements. F

JAPN 1102 Elementary Japanese II 4 credits. Basic communication skills, grammatical structures, and acquaintance with culture in Japan. Practice in the language laboratory is required. PREREQ: JAPN 1101 or equivalent. With JAPN 1101, satisfies Goal 10B of the General Education Requirements. F, S

JAPN 2201 Intermediate Japanese I 4 credits. Extensive review of grammatical structures and continued emphasis on developing students' communication skills in Japanese. Contrastive study of culture as reflected in the Japanese language. Practice in the language laboratory is required. PREREQ: JAPN 1102 or equivalent. With JAPN 2202, satisfies Goal 10B of the General Education Requirements. F

JAPN 2202 Intermediate Japanese II 4 credits. Extensive review of grammatical structures and continued emphasis on developing students' communication skills in Japanese. Contrastive study of culture as reflected in the Japanese language. Practice in the language laboratory is required. PREREQ: JAPN 2201 or equivalent. With JAPN 2201, satisfies Goal 10B of the General Education Requirements. S

JAPN 2205 Study Abroad 3-6 credits. Available only through study overseas. Development of intermediate-level communicative competencies in speaking, listening, reading, and writing, and of cultural awareness through exposure to customs, traditions, places, and peoples. Graded S/U. D

JAPN 2220 Basic Kanji I 3 credits. Introduction to basic kanji practice through acquisition of communication skills, grammatical structures, and acquaintance with culture in Japan. Writing, reading, and speaking of basic kanji and kanji components. PREREQ: JAPN 1101 or equivalent. D

JAPN 2221 Basic Kanji II 3 credits. Introduction to basic kanji practice through acquisition of communication skills, grammatical structures, and acquaintance with culture in Japan. Writing, reading, and speaking of basic kanji and kanji components. PREREQ: JAPN 2220 or equivalent. D

JAPN 3301 Japanese Conversation and Composition I 3 credits. Intensive practice speaking and writing Japanese in forms and styles common to economics, politics, science, society, the arts and creative writing of the Japanese-speaking world. PREREQ: JAPN 2202 or equivalent. F

JAPN 3302 Conversation and Composition II 3 credits. Intensive practice speaking and writing Japanese in forms and styles common to economics, politics, science, society, the arts and creative writing of the Japanese-speaking world. PREREQ: JAPN 2202 or equivalent. S

JAPN 3303 Professional Japanese 3 credits. Intensive practice speaking, reading and writing

Japanese in business, medical, legal, or other professions. May be repeated for up to 6 credits with different content. PREREQ: JAPN 2202 or equivalent. D

JAPN 3305 Study Abroad 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 3320 Intermediate Kanji I 3 credits. Intensive practice of intermediate kanji through development of intermediate level communicative competencies in speaking, listening, reading, and writing in kanji and kanji components. PREREQ: JAPN 2221 or equivalent. D

JAPN 3321 Intermediate Kanji II 3 credits. Intensive practice of intermediate kanji through development of upper-division level communicative competencies in speaking, listening, reading, and writing in kanji and kanji components. PREREQ: JAPN 3320 or equivalent. D

JAPN 3341 Survey of Japanese Literature 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 1102. D

JAPN 3342 Survey of Japanese Literature 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 1102. D

JAPN 4470 Readings in Japanese 2 credits. Reading, discussion, and writing on selected topics in Japanese literature. May be repeated for up to 4 credits with different content. Conducted in English or Japanese, depending on each student's skills. PREREQ: Permission of instructor. D

Language Courses

LANG 1107 Nature of Language 3 credits. General survey of structure and use of language. Topics include language origins, descriptive and historical linguistics, language and culture, and history of the English language. Cross-listed as ANTH 1107 and ENGL 1107. S

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

LANG 4455 Introduction to Phonetics 3 credits. Introduction to descriptive linguistics focusing on the phonetics and phonetic phenomena of English and the other languages of the world. Extensive practice in perception and production of such phenomena. Cross-listed as ANTH 4455. PREREQ: ANTH/ENGL/LANG 1107. D

LANG 4456 Introduction to Phonology and Morphology 3 credits. Phonological theory and analysis; current theories in morphology. Phonological rules, representations, underlying

forms, derivations, justifications of phonological analyses; morphological structure, derivational and inflectional morphology; relation of morphology to phonology. Cross-listed as ANTH 4456. PREREQ: ANTH/ENGL/LANG 1107. D

LANG 4457 Survey of Indo-European Languages 3 credits. Survey of Indo-European languages from ancient to modern times, their relationships to one another, and chief characteristics. Cross-listed as ANTH 4457. PREREQ: completion of Goal 10B. D

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

LANG 4484 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 4484 and ENGL 4484. PREREQ: ANTH/LANG/ENGL 1107 or ENGL 2280 or ENGL 2281. D

LANG 4488 Foreign Language Seminar 3 credits. Advanced studies in selected topics from language, culture, literatures or methods of research. May be conducted in English. May be repeated for up to 6 credits with different content. PREREQ: Permission of instructor. D

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

Latin Courses

LATN 1101 Elementary Latin I 4 credits. Intended to teach students basic reading skills and grammatical structures in Latin and to acquaint them with the culture of Ancient Rome. Practice in the language laboratory is required. With LATN 1102, satisfies Goal 10B of the General Education Requirements. D

LATN 1102 Elementary Latin II 4 credits. Intended to teach students basic reading skills and grammatical structures in Latin and to acquaint them with the culture of Ancient Rome. Practice in the language laboratory is required. With LATIN 1101, satisfies Goal 10B of the General Education Requirements. D

LATN 2201 Intermediate Latin I 4 credits. Review and further study of Latin grammar. Readings from various authors. Study of one book of Virgil's Aeneid. PREREQ: LATN 1102 or equivalent. With LATN 2202, satisfies Goal 10B of the General Education Requirements. D

LATN 2202 Intermediate Latin II 4 credits. Review and further study of Latin grammar. Readings from various authors. Study of one book of Virgil's Aeneid. PREREQ: LATN 2201 or equivalent. With LATN 2201, satisfies Goal 10B of the General Education Requirements. D

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

Russian Courses

RUSS 1101 Elementary Russian I 4 credits.

Intended to teach students basic communication skills and grammatical structures in Russian and to acquaint them with the culture of Russian speakers. Practice in the language laboratory is required. With RUSS 1102, satisfies Goal 10B of the General Education Requirements. D

RUSS 1102 Elementary Russian II 4 credits.

Intended to teach students basic communication skills and grammatical structures in Russian and to acquaint them with the culture of Russian speakers. Practice in the language laboratory is required. PREREQ: RUSS 1101 or equivalent. With RUSS 1101, satisfies Goal 10B of the General Education Requirements. D

RUSS 2201 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 1102 or equivalent. With RUSS 2202, satisfies GOAL 10B of the General Education Requirements. D

RUSS 2202 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 1102 or equivalent. With RUSS 2201, satisfies GOAL 10B of the General Education Requirements. D

RUSS 2205 Study Abroad 3-6 credits.

Available only through study overseas. Development of intermediate-level communicative competencies in speaking, listening, reading, and writing, and of cultural awareness through exposure to customs, traditions, places, and peoples. Graded S/U. D

RUSS 3301 Russian Conversation and Composition I 3 credits.

Intensive practice speaking and writing Russian in forms and styles common to economics, politics, science, society, the arts and creative writing of the Russian-speaking world. PREREQ: RUSS 2202 or equivalent. D

RUSS 3302 Russian Conversation and Composition II 3 credits.

Intensive practice speaking and writing Russian in forms and styles common to economics, politics, science, society, the arts and creative writing of the Russian-speaking world. PREREQ: RUSS 2202 or equivalent. D

RUSS 3305 Study Abroad 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

RUSS 4470 Readings in Russian 2 credits.

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

Shoshoni Courses

SHOS 1101 Elementary Shoshoni I 4 credits.

Basic communication skills and grammar of Shoshoni and introduction to Shoshoni culture.

Cross-listed as ANTH 1101. With ANTH/SHOS 1102, satisfies Goal 10B of the General Education Requirements. F

SHOS 1102 Elementary Shoshoni II 4 credits.

Furthering basic communication skills and grammar of Shoshoni and introduction to Shoshoni culture. Cross-listed as ANTH 1102. PREREQ: ANTH/SHOS 1101 or equivalent. With ANTH/SHOS 1101, satisfies Goal 10B of the General Education Requirements. S

SHOS 2201 Intermediate Shoshoni I 4 credits.

Intermediate communication skills and grammar of Shoshoni. Deepens understanding of Shoshoni Culture and builds on skills and knowledge gained in Elementary Shoshoni. Cross-listed as ANTH 2201. PREREQ: ANTH/SHOS 1102 or equivalent. With ANTH/SHOS 2202, satisfies Goal 10B of the General Education Requirements. F

SHOS 2202 Intermediate Shoshoni II 4 credits.

Intermediate communication skills and grammar of Shoshoni. Deepens understanding of Shoshoni culture and builds on skills and knowledge gained in Elementary Shoshoni. Cross-listed as ANTH 2202. PREREQ: ANTH/SHOS 2201 or equivalent. With ANTH/SHOS 2201, satisfies Goal 10B of the General Education Requirements. S

Spanish Courses

SPAN 1101 Elementary Spanish I 4 credits.

Intended to teach students basic communication skills and grammatical structures in Spanish and to acquaint them with the culture of the Spanish-speaking countries. Practice in the language laboratory is required. With SPAN 1102, satisfies Goal 10B of the General Education Requirements. F, S

SPAN 1102 Elementary Spanish II 4 credits.

Intended to teach students basic communication skills and grammatical structures in Spanish and to acquaint them with the culture of the Spanish-speaking countries. Practice in the language laboratory is required. PREREQ: SPAN 1101 or equivalent. With SPAN 1101, satisfies Goal 10B of the General Education Requirements. F, S

SPAN 1110 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. D

SPAN 1111 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 1110 or equivalent. D

SPAN 2201 Intermediate Spanish I 4 credits.

Extensive review of grammatical structures and continued emphasis on developing students' communication skills in Spanish. Contrastive study of culture as reflected in the Spanish language. Practice in the language laboratory is required. PREREQ: SPAN 1102 or equivalent.

With SPAN 2202, satisfies Goal 10B of the General Education Requirements. F, S

SPAN 2202 Intermediate Spanish II 4 credits.

Extensive review of grammatical structures and continued emphasis on developing students' communication skills in Spanish. Contrastive study of culture as reflected in the Spanish language. Practice in the language laboratory is required. With SPAN 2201, satisfies Goal 10B of the General Education Requirements. F, S

SPAN 2205 Study Abroad 3-6 credits.

Available only through study overseas. Development of intermediate-level communicative competencies in speaking, listening, reading, and writing, and of cultural awareness through exposure to customs, traditions, places, and peoples. Graded S/U. D

SPAN 3301 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 2202 or equivalent. F, S

SPAN 3302 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 2202 or equivalent. F, S

SPAN 3303 Professional Spanish 3 credits.

Intensive practice speaking, reading and writing Spanish in business, medical, legal, or other professions. May be repeated for up to 6 credits with different content. PREREQ: SPAN 2202 or equivalent. D

SPAN 3305 Study Abroad 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 3341 Survey of Spanish Literature and Civilization 3 credits.

Comprehensive overview of main currents of Peninsular cultural history and literature. Conducted in Spanish. PREREQ: SPAN 2202 or equivalent. F

SPAN 3342 Survey of Latin American Literature and Civilization 3 credits.

Comprehensive overview of main currents of Latin American cultural history and literature. Conducted in Spanish. PREREQ: SPAN 2202. S

SPAN 3381 Hispanic Current Affairs 3 credits.

Study of contemporary Hispanic culture through an examination of current socio-cultural issues in Spanish speaking countries. Conducted in Spanish. PREREQ: Permission of instructor. R3

SPAN 4400 Spanish Advanced Grammar 3 credits.

Survey of selected grammar and composition topics on the advanced level. PREREQ: SPAN 3301 or SPAN 3302 or permission of instructor. D

SPAN 4412 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 3301 or SPAN 3302 or permission of instructor. D

SPAN 4414 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 3301 or SPAN 3302 or permission of instructor. D

SPAN 4415 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 3301 or SPAN 3302 or permission of instructor. D

SPAN 4422 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 3301 or SPAN 3302 or permission of instructor. F

SPAN 4425 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 3301 or SPAN 3302 or permission of instructor. D

SPAN 4430 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 3301 or SPAN 3302 or permission of instructor. D

SPAN 4440 Spanish 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 3301 or SPAN 3302 or permission of instructor. D

SPAN 4450 Twentieth Century Spanish Literature 3 credits. Examination of modern Peninsular letters as evidenced in poetry, the short story, the novel and the essay. Conducted in Spanish. PREREQ: SPAN 3301 or SPAN 3302 or permission of instructor. D

SPAN 4460 Spanish Translation and Interpretation 3 credits. Theory and principles of translation and/or interpretation and their application in the fields of literature, business, law, and medicine. Topics may vary. May be repeated once with different content. PREREQ: Permission of instructor. D

SPAN 4462 Early Twentieth Century Spanish American Literature 3 credits. Study of major writers and their historical contexts from "modernismo" to World War II, including prose, poetry and drama. Conducted in Spanish. PREREQ: SPAN 3301 or SPAN 3302 or permission of instructor. AF

SPAN 4465 Contemporary Spanish American Literature 3 credits. Study of major writers and their historical contexts from World War II until the present, including prose, poetry and drama. Conducted in Spanish. PREREQ: SPAN 3301 or SPAN 3302 or permission of instructor. AS

SPAN 4468 US Latino Literature 3 credits. Examination of major works and authors in historical perspective, with emphasis on literary and cultural contexts. PREREQ: SPAN 3301 or SPAN 3302 or permission of instructor. D

SPAN 4470 Readings in Spanish 2 credits. Reading, discussion, and preparation of reports on selected topics in Spanish literature. May be repeated for up to 4 credits with different content. Conducted in Spanish. PREREQ: SPAN 3301 or SPAN 3302 or permission of instructor. D

SPAN 4480 Independent Studies in Spanish 3 credits. A directed project, under the guidance of an instructor, emphasizing individual study or research according to the needs of the student. PREREQ: SPAN 3301 or SPAN 3302 or permission of instructor. D

SPAN 4490 Spanish Senior Seminar 3 credits. Advanced studies in selected topics from language, culture, literatures or methods of research. May be repeated for up to 6 credits with different content. Conducted in Spanish. PREREQ: SPAN 3301 or SPAN 3302 or permission of instructor. D

SPAN 4493 Spanish Internship 1-3 credits. Internship coordinated by faculty providing significant exposure to the use of Spanish in a professional environment. May be repeated for up to 3 credits. Graded S/U. F, S

Leadership Studies Program

Director and Professor: DiSanza
(Communication and Rhetorical Studies)

Mission

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

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

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

Interdisciplinary Minor in Leadership Studies (21 credits)

Core Courses (9 credits)

LEAD 2201	Foundations of Leadership	3 cr
LEAD 3360	Student Leadership Practicum	3 cr
LEAD 4480	Leadership Capstone	3 cr

Emphasis Courses (12 credits)

Students will take one three-credit course in each of the following four emphasis areas:

Organizational/Interpersonal

COMM 3308	Persuasion	3 cr
MGT 4441	Organizational Behavior (PREREQ: MGT 3312)	3 cr
COMM 4441	Interpersonal Communication	3 cr
POLS 4451	Organizational Theory and Bureaucratic Structure (PREREQ: POLS 4405 recommended)	3 cr
COMM 4452	Conflict Management	3 cr

Cultural Understanding

SOC 2248	Social Diversity	3 cr
MGT 4465	International Business (PREREQ: ECON 2202, FIN 3317)	3 cr

Leaders

POLS 4403	The Presidency	3 cr
HIST 4439	Women in History	3 cr
COMM 4447	Rhetoric of Hitler and Churchill	3 cr

Ethics

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

LEAD Courses

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

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

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

The James E. Rogers Department of Mass Communication

College of
Arts and
Sciences

Chair and Professor: Terry
Professors: Frazier, Jull
Associate Professor: Beachboard,
Assistant Professors: 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 to students preparing for careers 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, six emphases are available: Advertising, Journalism, Media Studies, Public Relations, Television, and Visual Communication. Advertising, Journalism, Public Relations, and Television sequences require approximately 35 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 46 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. The department also offers a Bachelor of Arts in Theatre, Film, and Video, in cooperation with the Department of Theatre and Dance, for students interested in a career in producing, directing, and recording live performances.

Admission to Major Status

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

1. Be officially admitted to Idaho State University.
2. Successfully complete the following lower division courses or their equivalents:

MC 1119	Introduction to Mass Media	3 cr
MC 1121, 1121L	Reporting and Newswriting, and Lab	4 cr
MC 2215	Graphic Design	3 cr
	OR (depending on emphasis)	
MC 2230, 2230L	Introduction to Photography, and Lab	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 1108 Intermediate Algebra and MATH 1153 Introduction to Statistics or their equivalents. Majors must also earn a grade of C or better in all Mass Communication courses.

All students must be advised each semester before graduation. 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

Required Mass Communication Courses

MC 1119	Introduction to Mass Media	3 cr
MC 1121, 1121L	Reporting and Newswriting, and Lab	4 cr
MC 2215	Graphic Design	3 cr
MC 3315	Intermediate Graphic Design	3 cr
MC 4452	Mass Communication and Society	3 cr

Advertising Core Courses

MC 2200	Introduction to Advertising	3 cr
MC 3355	Advertising Copywriting	3 cr
MC 3367	Media Planning and Buying	3 cr
MC 4455	Advertising Campaigns	3 cr

Additional Required Mass Communication Courses

Select THREE of the following:

MC 2230	Introduction to Photography	4 cr
MC 2241	Introduction to Public Relations	3 cr
MC 2260	Photo and Graphic Workshop	3 cr
MC 3300	Television Production	3 cr
MC 3343	Public Relations Principles and Concepts	3 cr
MC 3350	New Media	3 cr
MC 3375	Special Projects in Advertising	3 cr
MC 4415	Advanced Graphic Design	3 cr
MC 4440	Media Law and Ethics	3 cr
	OR	
MC 4441	Intellectual Property and Commercial Speech	3 cr
MC 4470	Communication through Web Design	3 cr
MC 4494	Media Internship	3 cr
MC 4495	Applied Research Methods	3 cr
MKTG 3325	Basic Marketing Management	3 cr

In Addition:

Components, listed below	15 cr
TOTAL:	52 or 53 cr

Emphasis in Journalism

Required Courses:

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

Plus one of the following courses:

MC 2215	Graphic Design	3 cr
MC 2260	Photo and Graphic Workshop	3 cr

MC 3305,3305L	Photo Communication, and Lab	3 cr
MC 3315	Intermediate Graphic Design	3 cr
MC 3327	Magazine Article Writing	3 cr
MC 4445	Editorial Writing	3 cr

In Addition:

Components, listed below	15 cr
TOTAL:	45 cr

The Department also strongly recommends

MC 4494	Media Internship	1-3 cr
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Emphasis in Media Studies**Required Courses:**

ENGL 3307	Professional and Technical Writing OR	3 cr
ENGL 3308	Business Communications	3 cr
MC 1119	Introduction to Mass Media	3 cr
MC 1121,1121L	Reporting and Newswriting, and Lab	4 cr
MC 2210	History and Appreciation of Photography	3 cr
MC 2215	Graphic Design	3 cr
MC 2290	American Broadcasting OR	3 cr
MC 3300	Television Production	3 cr
MC 4415	Advanced Graphic Design	3 cr
MC 3321	Reporting of Public Affairs	3 cr
MC 3350	New Media	3 cr
MC 4440	Media Law and Ethics	3 cr
MC 4452	Mass Communication and Society	3 cr

COMM 2201	Business and Professional Speaking	3 cr
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IN ADDITION:	Mass Communication electives	3 cr
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Select one course from each of the two following blocks:**Block 1**

MKTG 3325	Basic Marketing Management	3 cr
MKTG 4428	Marketing Communications	3 cr
COMM 2208	Group Communication	3 cr
COMM 3355	Nonverbal Communication	2 cr
COMM 4441	Interpersonal Communication	3 cr
COMM 4452	Conflict Management	3 cr
COMM 4453	Organizational Communication	3 cr

Block 2

COMM 4436	Rhetorical Criticism	3 cr
COMM 4437	Rhetorical Theory	3 cr
COMM 4442	American Rhetoric and Public Address	3 cr
COMM 4447	Rhetoric of Hitler and Churchill	3 cr
COMM 4451	Recent Rhetorical Issues	3 cr
TOTAL:	45 or 46 cr	

Recommended:

MGT 3312	Individual and Organizational Behavior	3 cr
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Emphasis in Public Relations**Required Mass Communication Courses**

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

Public Relations Core Courses

MC 2241	Introduction to Public Relations	3 cr
MC 3343	Public Relations Principles and Concepts	3 cr

MC 3367	Advertising Media Planning	3 cr
MC 4480	Public Relations Programs	3 cr
MC 4495	Applied Research Methods	3 cr

Additional Required Mass Communication Courses--Select THREE of the following:

MC 2260	Photo and Graphic Workshop	3 cr
MC 3300	Television Production	3 cr
MC 3315	Intermediate Graphic Design	3 cr
MC 3350	New Media	3 cr
MC 3355	Advertising Copywriting	3 cr
MC 3375	Special Projects in Advertising	3 cr
MC 4440	Media Law and Ethics	3 cr
OR		
MC 4441	Intellectual Property and Commercial Speech	3 cr
MC 4470	Communication Through Web Design	3 cr
MC 4494	Media Internship	3 cr

In Addition:

Components, listed below	15 cr
TOTAL:	52 or 53 cr

Emphasis in Television**Required Courses:**

MC 1119	Introduction to Mass Media	3 cr
MC 1121,1121L	Reporting and Newswriting, and Lab	4 cr
MC 2201	Writing for the Camera	2 cr
MC 2230,2230L	Introduction to Photography, and Lab	4 cr
MC 2260	Photo and Graphic Workshop	3 cr
MC 2290	American Broadcasting	3 cr
MC 3300	Television Production	3 cr
MC 3306	Non-linear Editing	2 cr
MC 4435	Television News	3 cr
MC 4440	Media Law and Ethics	3 cr
OR		
MC 4441	Intellectual Property and Commercial Speech	3 cr
MC 4450	Television Workshop	2 cr
MC 4452	Mass Communication and Society	3 cr

Plus two of the following courses:

MC 3321	Reporting of Public Affairs	3 cr
MC 3360	Film-Style Production	3 cr
MC 4451	Television Studio Directing	2 cr
MC 4460	Corporate Video Production	3 cr

In Addition:

Components, listed below	15 cr
TOTAL:	55 or 56 cr

The Department also strongly recommends:

MC 4494	Media Internship	1-3 cr
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Emphasis in Visual Communication**Required Courses:**

MC 1119	Introduction to Mass Media	3 cr
MC 1120,1120L	Writing Across the Media, and Lab	4 cr
MC 2215	Graphic Design	3 cr
MC 2230,2230L	Introduction to Photography, and Lab	4 cr
MC 2260	Photo and Graphic Workshop	3 cr
MC 4440	Media Law and Ethics	3 cr
OR		
MC 4441	Intellectual Property and Commercial Speech	3 cr
MC 4452	Mass Communication and Society	3 cr

Graphics Track students also must take:

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

Photography Track students also must take:

MC 2210	History and Appreciation of Photography	3 cr
MC 3305	Photo Communication	3 cr
MC 4405	Color Printing OR	3 cr
MC 4410	Advanced Photography	3 cr
MC 4412	Digital Imaging	3 cr
MC 4426	Senior Photography Portfolio	1 cr

In Addition:

Components, listed below	15 cr
TOTAL:	51 cr

The Department also strongly recommends:

MC 4494	Media Internship	1-3 cr
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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
Marketing
Management

Component 2—World Affairs

GEOL 1115
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

THEA 2214	Makeup	2 cr
THEA 2252	Intermediate Acting	3 cr
	General Education Goal Courses	15 cr
	Electives*	7 cr

Junior Year (32 credits)

MC 3306	Non-linear Editing	3 cr
MC 3360	Film Style Production	3 cr
THEA 3311	Introduction to Scene Design	3 cr
	OR	
THEA 4403	Stage Costume Design	3 cr
THEA 4455	Directing	3 cr
	General Education Goal Courses	12 cr
	Electives	8 cr

Senior Year (32 credits)

MC 4451	TV Studio Directing	2 cr
	General Education Goal Courses	10 cr
	Electives*	16 cr
	Plus one of the following:	
THEA 4400	Theatre Background I	3 cr
THEA 4401	Theatre Background II	3 cr
THEA 4419	Modern European Theatre	3 cr
THEA 4420	American Theatre History	3 cr
THEA 4470	Contemporary Theatre	3 cr

***Recommended Electives**

Choose electives each semester from the list below:

ANTH 4494	Visual Anthropology	3 cr
ART 1103	Creative Process	3 cr
CIS 1101	Introduction to Computer Systems	3 cr
CMLT 2220	Introduction to International Film Studies	3 cr
CMLT 3335	World Film Studies	3 cr
CMLT 4435	Topics in World Film Studies	3 cr
ENGL 1126	Art of The Film I	3 cr
ENGL 3305	Art of the Film II	3 cr
MC 2215	Graphic Design	3 cr
MC 2230, 2230L	Introduction to Photography, and Lab	4 cr
MC 2290	American Broadcasting	3 cr
MC 4441	Intellectual Property and Commercial Speech	3 cr
MC 4450	Television Workshop	2 cr
THEA 1131	Voice and Diction	2 cr*Electives
THEA 1191,1192,3391,3392	Theatre Production**	1 cr
THEA 2218	Stage Dialects	2 cr
THEA 3390, 4490	Practicum Theatre Arts I, III-	3 cr
THEA 4404	Problems in Acting	3 cr
THEA 4405	Advanced Costume Construction	3 cr
THEA 4424	Advanced Acting Styles	3 cr
THEA 4426	Advanced Scene Design	3 cr
THEA 4456	Advanced Stage Direction	3 cr

Minors Suggested:

- Art (Studio and Art History minors)—21 credits
- Business—18 credits
- Dance—24 credits
- English (Creative Writing Option)—21 credits

Minor in Mass Communication

A Minor in Mass Communication requires 18 credits including MC 1119, MC 4452, one additional 1000-2000 level class, one additional 3000 level class, and one additional 4000 level class, plus additional credits to total 18 from anywhere in the mass communication curriculum except MC 4494 Media Internship, which is of-

ferred to majors only. Students must have declared a major before naming Mass Communication as a minor and are responsible for meeting all prerequisites for Mass Communication courses they take. Students are encouraged to seek advisement from Mass Communication faculty.

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 1121 Reporting and Newswriting with a minimum C in order to be allowed to take MC 3341 Introduction to Public Relations.*

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

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

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

MC 1121 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 1101 or placement into ENGL 1102. COREQ: MC 1121L. F, S, Su

MC 1121L Reporting and Newswriting Lab 0 credit. F, S, Su

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

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

MC 2210 History and Appreciation of Photography 3 credits. Discovery of the photographic process and its evolution to present. Analysis of many recognized masters of photography.

Bachelor of Arts in Theatre, Film, and Video

Theatre, Film and Video is a major designed for students interested in a career in producing, directing and recording live performances. It approaches professional opportunities from both on-stage and video recording perspectives.

Objective:

to help all students obtain a level of achievement appropriate to entry-level professionals in their specialty areas or to use the confidence, expressiveness, and cooperative skills gained through their studies at ISU to succeed in a diverse range of careers in the world of technology and the arts.

The program's goals include developing in the student the following:

- The ability to communicate effectively orally and in writing.
- Competency in study and research skills
- Competency in thinking clearly, logically, and independently.
- The ability to solve problems that arise in a professional setting and working within a collaborative art form.
- Competency with theatre, film, and video technology.
- Sufficient general knowledge to pursue and succeed in a career in theatre, film, and/or video.
- The ability to critique one's work and accept criticism.

Required Courses**Freshman Year (32 credits)**

MC 1119	Introduction to Mass Media	3 cr
MC 2260	Photo and Graphic Workshop	3 cr
THEA 1111	Stagecraft	3 cr
THEA 2251	Beginning Acting	3 cr
	General Education Goal Courses	15 cr
	Electives*	5 cr

Sophomore Year (32 credits)

MC 2201	Writing for the Camera	2 cr
MC 3300	Television Production	3 cr
THEA 2209	Stage Lighting	2 cr
	OR	

Cross-listed as ART 2210. Satisfies Goal 6 of the General Education Requirements. F, S

MC 2215 Graphic Design 3 credits. Introduction to concepts and procedures of graphic design. Lectures, studio and computer exercises will explore issues in design for graphic media, typography, and design for the page. F, S, Su

MC 2230 Introduction to Photography 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: MC 2230L. F, S, Su

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

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

MC 2260 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

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

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

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

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

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

MC 3306 Non-linear Editing 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: MC 2260 and MC 3300 or permission of instructor with demonstrated professional experience. F

MC 3315 Intermediate Graphic Design 3 credits. Explore more techniques and applications of graphic design. Emphasis on developing a deeper understanding of the foundations of type and its use. Explore the use of color and photography in printed projects. Field trips to

printing shops and working professionals are part of the class. PREREQ: MC 2215. F, S

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

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

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

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

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

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

MC 3343 Public Relations Principles and Concepts 3 credits. The history, scope, ethics and functions of public relations. Particular attention given to understanding of publics and ways of gaining public support for an activity, cause, movement or institution. PREREQ: C or better in either MC 1120 or MC 1121 and MC 2241. F

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

MC 3355 Advertising Copywriting 3 credits. Includes overview of basic creative skills, with emphasis on how to write creative advertising for print, radio, television, and the Internet. PREREQ: Goal 1, MC 1119, MC 1121, and one of: MC 2200, MC 2215 or permission of instructor with demonstrated professional experience. S

MC 3360 Film-Style Production 3 credits. Non-news film and video production. Focuses on creative aspects of making films and videos: sound, lighting, composition, editing, special effects, animation, etc. PREREQ: MC 3300 or permission of instructor with demonstrated professional experience. D

MC 3367 Advertising Media Planning 3 credits. Selecting and evaluating 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 MC 2200 or permission of instructor. S

MC 3375 Special Projects in Advertising 3 credits. Students work as a team to apply persuasive mass communication principles to solving a real-world client marketing communication problem. May be repeated for up to 6 credits. PREREQ: Permission of instructor. D

MC 4405 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: MC 2230 and MC 2260 or permission of instructor. S

MC 4405L Color Printing Laboratory 0 credits. Assignments to apply principles from MC 4405. S

MC 4410 Advanced Photography 4 credits. Advanced black and white techniques including controlled printing techniques and the Zone System. Intensive criticism of work and encouragement of individuals' photographic growth. Lectures, laboratories. PREREQ: MC 2230 and MC 2260 or permission of instructor. F

MC 4410L Advanced Photography Laboratory 0 credits. Assignments to apply principles from MC 4410. F

MC 4412 Digital Imaging 3 credits. Lab-based course on the use of digital cameras, imaging technologies, computer manipulations and printing. Emphasis on aesthetic expression unique to this photographic medium. PREREQ: MC 2260; either MC 4405 or MC 4410; permission of instructor. S

MC 4415 Advanced Graphic Design 3 credits. Leading issues and problems in the current design field. Advanced development of 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: MC 2215 and MC 3315 or permission of instructor with demonstrated professional experience. F

MC 4418 Art of the Book 3 credits. Expands the traditional idea of book form with innovative structures and concepts. Textual and nontextual formats and methods for generating ideas for works are addressed. Traditional techniques for bookbinding will also be included. Cross-listed as ART 4418. S

MC 4425 Senior Graphic Portfolio 1 credit. Create a professional portfolio for career or graduate school. Work for the portfolio must be generated in this class. Critiques require demonstrated competency in all uses of graphic design. May be offered as independent project. PREREQ: MC 2215, MC 3315, MC 4415, senior standing or instructor permission with demonstrated professional experience. D

MC 4426 Senior Photographic Portfolio 1 credit. Create a professional portfolio. Work for this portfolio must be generated in this class. Covers all uses of photography. Course may be offered as independent project. PREREQ: MC 2230, MC 2260, MC 4410 or permission of instructor with demonstrated professional experience. D

MC 4435 Television News 3 credits. Writing, reporting and producing the television newscast. Emphasis on proper technique as well as ethical and social issues. PREREQ: MC 1121, MC 3300. D

MC 4440 Media Law and Ethics 3 credits. Principles of the law of libel, privacy, obscenity, press freedom, responsibility and ethics as they apply to the news media. R2

MC 4441 Intellectual Property and Commercial Speech 3 credits. Examination of principles and laws regarding intellectual property including copyright and trademark and examination of the regulation of commercial speech. D

MC 4445 Editorial Writing 3 credits. Writing and producing the editorial page including fundamentals of column and opinion piece writing, syndication, letters to the editor, cartoons. D

MC 4450 Television Workshop 2 credits. Practical experience producing television programs for local airing. May be repeated for up to 6 credits. PREREQ: MC 2201 and 3300 or permission of instructor with demonstrated professional experience. S

MC 4451 Television Studio Directing 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 MC 4435 or MC 4450. PREREQ: MC 3300 or instructor permission with demonstrated professional experience. D

MC 4452 Mass Communication and Society 3 credits. Interface between mass media and audiences. Public's right to know, press freedom, censorship, political and other leanings in the media, media effectiveness, ethics, and aspects of critical media literacy. PREREQ: 58 credits including MC 1119, MC 1121 and at least one course from the student's emphasis area. S

MC 4455 Advertising Campaigns 3 credits. Capstone course; the development of an advertising campaign; includes situation analysis, research, strategy, and creation of the advertising. PREREQ: MC 3355 or permission of instructor. D

MC 4460 Corporate Video Production 3 credits. Producing for corporate, educational, home video, documentary and other nonfiction markets. Advanced production techniques. Major project required. MC 3300 and MC 3306 or permission of instructor with demonstrated professional experience. D

MC 4470 Communication Through Web Design 3 credits. Theory, ideology and practical application of interactive document design utilizing several different software applications. Emphasis placed on communication. Also taught within a practical and aesthetic context, ethics, current practices, purposes, styles, genres and directions in authoring for the world wide web. PREREQ MC 2260 or permission of instructor. D

MC 4480 Public Relations Programs 3 credits. Tactics and strategies for planning public relations programs for public and private organizations. PREREQ: MC 3343 or permission of instructor. S

MC 4491 Independent Projects 1-3 credits. Under direct supervision of a department faculty member, student conducts individual projects in the field of mass communication. May be repeated for up to 6 credits. PREREQ: Permission of instructor. F, S, Su

MC 4494 Media Internship 1-3 credits. Practical experience in the media, supervised by faculty and professional journalists. Work

equivalent to full time for one-half semester. PREREQ: Permission of department. Open to juniors and seniors with 3.0 GPA in major course work. F, S, Su

MC 4495 Applied Research Methods 3 credits. Introduces and develops practical methods for designing, conducting and analyzing studies used in many public relations, advertising and marketing campaigns. Students will create complete studies. PREREQ: MATH 1153 or MGT 2216, or permission of instructor. D

Department of Mathematics

Chair and Professor: Fisher

Assistant Chair and Professor: Laquer

Professors: Egger, Gryazin, Hanin,
R. Hill, Kriloff, Lang, Palmer, Payne,
Stowe, Wolper

Associate Professors: Chen, Gironella

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, Harmon,
Horwith, Judy, Lundeen, Mayes,
Rude

Emeriti: Cresswell, Ford, L. Hill, Kratz,
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 math-

ematics, 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):

CS 1181	Computer Science and Programming I*	3 cr
MATH 1170	Calculus I	4 cr
MATH 1175	Calculus II	4 cr
MATH 2275	Calculus III	4 cr
MATH 2240	Linear Algebra	3 cr
MATH 3326	Elementary Analysis	3 cr

The two courses, ENGR 1165 Structured Programming and ENGR 1166 Symbolic Programming, may be substituted for CS 1181.

Bachelor of Science in Mathematics

The Bachelor of Science program in Mathematics is designed to prepare students to take positions in industry, to pursue graduate training, or to enter the teaching profession. It allows some flexibility in course work which necessitates close cooperation with a mathematics department advisor who should be selected early in the student's career.

Required Courses:

MATH CORE	(See above)	21 cr
MATH 2287	Foundations of Mathematics	3 cr
MATH 3360	Differential Equations	3 cr
MATH 4407	Modern Algebra	3 cr
MATH 4423	Introduction to Real Analysis	3 cr

Plus one of the following three courses:

MATH 3327	Vector Analysis	3 cr
MATH 3352	Introduction to Probability	3 cr
MATH 3362	Introduction to Complex Variables	3 cr

Plus 12 more credits of 4000-level mathematics coursework, which includes completing two of the following sequences:

MATH 4407,4408	Modern Algebra I, II	6 cr
MATH 4423,4424	Introduction to Real Analysis I, II	6 cr
MATH 4441,4442	Introduction to Numerical Analysis I, II	6 cr
MATH 4450,4451	Mathematical Statistics I, II	6 cr

Bachelor of Science in Statistics

The Bachelor of Science program in Statistics is designed to prepare students to take positions in industry or pursue graduate training.

Required Courses:

Required Courses: (39 credits)

Mathematics Core (shown above)	21 cr
MATH 3350 Statistical Methods	3 cr
MATH 3352 Introduction to Probability	3 cr
MATH 4450,4451 Mathematical Statistics I, II	6 cr
MATH 4457 Applied Regression Analysis	3 cr
MATH 4458 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 (4000-level) in another field, such as Biology, Economics, etc.

MATH 3360 Differential Equations	3 cr
MATH 4406 Advanced Linear Algebra	3 cr
MATH 4423 Introduction to Real Analysis I	3 cr
MATH 4424 Introduction to Real Analysis II	3 cr
MATH 4441 Introduction to Numerical Analysis I	3 cr
MATH 4442 Introduction to Numerical Analysis II	3 cr
MATH 4453 Topics in Statistics*	3 cr
MATH 4459 Applied Multivariate Analysis	3 cr

*This is a 1-3 credit course, repeated for up to 3 credits

Associate of Science in Mathematics

Students seeking an Associate of Science degree in Mathematics must complete the following:

General Education Goals for the Bachelor of Science* variable cr
One of the two tracks described below.

*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.

Track A is designed to provide the student with a broad overview of basic topics in mathematics. Track B is designed to provide the student with the lower-division coursework generally expected for a major or minor in mathematics.

Track A

MATH 1123 Mathematics in Modern Society	3 cr
MATH 1127 The Language of Mathematics	3 cr
MATH 1130 Finite Mathematics	3 cr

MATH 1144 Trigonometry**	2 cr
MATH 1160 Applied Calculus	3 cr
MATH 1153 Introduction to Statistics	3 cr
C S 1181 Introduction to Computer Science and Programming I	3 cr

TOTAL MATH CREDITS: 17-20 cr

**MATH 1144 may be waived given a sufficient score on the Mathematics Placement Exam or the Mathematics Sub-test of the ACT or SAT.

Track B

CS 1181 Introduction to Computer Science and Programming I	3 cr
MATH 1170 Calculus I	4 cr
MATH 1175 Calculus II	4 cr
MATH 2275 Calculus III	4 cr
MATH 2287 Foundations of Mathematics	3 cr
Approved MATH electives	3 cr
TOTAL MATH CREDITS:	21 cr
Electives to bring total to 64 cr	variable
TOTAL:	64 cr

Minor in Applied Mathematics

Required Courses:

Mathematics Core (See above)	21 cr
MATH 3360 Differential Equations	3 cr

Additional courses (3 credits)

Choose three credits (one course) from the following list:

MATH 3352 Introduction to Probability	3 cr
MATH 4421 Advanced Engineering Mathematics	3 cr
MATH 4441 Introduction to Numerical Analysis	3 cr
MATH 4465 Partial Differential Equations	3 cr

Minor in Mathematics

Required Courses:

Mathematics Core (See above)	21 cr
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Additional courses (6 credits)

Choose six credits (two courses) from the following list:

MATH 3327 Vector Analysis	3 cr
MATH 3343 Modern Geometry	3 cr
MATH 3352 Introduction to Probability	3 cr
MATH 3360 Differential Equations	3 cr
MATH 3362 Introduction to Complex Variables	3 cr
MATH 4407 Modern Algebra I	3 cr
MATH 4408 Modern Algebra II	3 cr
MATH 4423 Introduction to Real Analysis I	3 cr
MATH 4424 Introduction to Real Analysis II	3 cr
MATH 4444 Modern Geometry II	3 cr
MATH 4473 Introduction to Topology	3 cr

Minor in Statistics

Required Courses: (27 credits)

Mathematics Core (shown above)	21 cr
MATH 3350 Statistical Methods	3 cr
MATH 3352 Introduction to Probability	3 cr

Additional Courses: (3 credits)

Choose 3 credits from among the following courses:

MATH 4450 Mathematical Statistics I	3 cr
MATH 4451 Mathematical Statistics II	3 cr
MATH 4453 Topics in Statistics*	3 cr
MATH 4457 Applied Regression Analysis	3 cr
MATH 4458 Experimental Design	3 cr
MATH 4459 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 0015 have prerequisites. Students place into a course either by completing the prerequisite courses with a grade of C- or better (S in MATH 0015 and 0025) or by achieving appropriate scores on the ACT Mathematics exam, SAT Mathematics exam, or the Compass Mathematics Placement Exam. For placement purposes, prerequisite coursework or placement examinations must have been taken within the last seven years. See the Mathematics Department for further information.

Students must pass a mathematics course with a grade of C- or better before using that course as a prerequisite for another mathematics course.

MATH 0015 Arithmetic and Pre-algebra 0 credits (3 credit equivalent) Arithmetic of integers and rational numbers. Decimals; introduction to variables; linear equations; problems involving rates, ratios, proportions and percentages. Graded S/U. F, S, Su

MATH 0025 Elementary Algebra 0 credits (3 credit equivalent). Variables and algebraic expressions. Absolute value; linear equations and inequalities and their applications; expansion and factorization of polynomials; rational expressions; radical expressions; the real number line; the Cartesian coordinate system and graphing of linear equations. Graded S/U. PREREQ: MATH 0015 or equivalent. F, S, Su

MATH 1108 Intermediate Algebra 3 Credits. Topics in algebra, with an emphasis on solving equations and inequalities. Systems of linear equations; quadratic equations and the quadratic formula; polynomial, absolute value, rational, and radical equations and inequalities. Radical and rational exponents. Parabolas, distance formula and circles. PREREQ: S in MATH 0025, a Math ACT score of 19, an SAT score of 460, or 45 on the algebra section (MAPL 2). F, S, Su

MATH 1123 Mathematics in Modern Society 3 credits. Survey of applications of mathematics to real-world problems. Topics from graph theory, management science, political science, statistics, geometry, and computer science. PREREQ: MATH 0025. Satisfies Goal 3 of the General Education Requirements. F, S, Su

MATH 1127 The Language of Mathematics 3 credits. Introduction to the precise language used throughout mathematics. Development of skills including reading with comprehension, expressing mathematical thoughts clearly, reasoning logically, and employing common patterns of mathematical thought. PREREQ: MATH 0025. Satisfies Goal 3 of the General Education Requirements. S

MATH 1130 Finite Mathematics 3 credits. Introduction to probability, linear systems, inequalities, and linear programming. Applications directed to non-physical science areas. PREREQ: MATH 1108. Satisfies Goal 3 of the General Education Requirements. F, S

MATH 1143 College Algebra 3 credits. Functions and their graphs. Notation, domain, range, composition, and inverses. Basic transformations of graphs. Polynomial, rational, exponential, and logarithmic functions and their graphs, with applications. Theory of polynomial functions and equations. PREREQ: MATH 1108. F, S, Su

MATH 1144 Trigonometry 2 credits. Circular functions and right triangle approaches to trigonometry. Graphs of trigonometric functions: amplitude, frequency, phase shift. Trigonometric identities, inverse functions, and equations. Introduction to vectors in the plane, polar coordinates, and polar representation of complex numbers. PREREQ: MATH 1143. F, S, Su

MATH 1147 Precalculus 5 credits. A single one-semester course equivalent to College Algebra (MATH 1143) plus Trigonometry (MATH 1144). Credit cannot be granted in both MATH 1143 and MATH 1147, or in both MATH 1144 and MATH 1147. PREREQ: MATH 1108. F, S

MATH 1153 Introduction to Statistics 3 credits. Descriptive statistics, probability, confidence intervals, and hypothesis testing for one and two parameters. Emphasis on applications to a wide variety of disciplines. PREREQ: MATH 1108. Satisfies Goal 3 of General Education Requirements. F, S, Su, W

MATH 1160 Applied Calculus 3 credits. Course in differential and integral calculus designed primarily for students in biological sciences, social sciences, business, education, and humanities. Credit cannot be granted in both MATH 1160 and MATH 1170. PREREQ: MATH 1143 or MATH 1147. Satisfies Goal 3 of the General Education Requirements. F, S, Su

MATH 1170 Calculus I 4 credits. First course in the sequence 1170, 1175, 2275. Real-valued functions of one real variable: limits, continuity, derivatives, integrals, applications. Credit cannot be granted in both MATH 1160 and MATH 1170. PREREQ: MATH 1144 or MATH 1147. Satisfies Goal 3 of the General Education Requirements. F, S, Su

MATH 1175 Calculus II 4 credits. Second course in the sequence 1170, 1175, 2275. Techniques of integration, trigonometric integrals, improper integrals. Applications of definite integrals. First- and second-order linear differential equations with constant coefficients. Sequences and series. Parametric curves in the plane, polar coordinates. Polar coordinates PREREQ: MATH 1170. F, S, Su

MATH 1187 Applied Discrete Structures 3 credits. Discrete structures in CS and EE. Boolean algebra and logic; sets, functions, and relations; iteration, recursion, and induction; algorithms; programming in pseudocode; basic counting principles; graphs and trees; and other selected topics from discrete mathematics. Cross-listed as CS 1187. PREREQ: CS 1181. S

MATH 2240 Linear Algebra 3 credits. Introduction to linear algebra. Linear systems, matrices, determinants, vector spaces, linear transformations, linear independence, eigenvalues and eigenvectors, orthogonalization. PREREQ: MATH 1170. F, S, Su

MATH 2256 Structure of Arithmetic for Elementary School Teachers 3 credits. Development of number systems. Emphasis on principles, representations, and concept development. For elementary education majors. PREREQ: MATH 1143. F

MATH 2257 Structure of Geometry and Probability for Elementary School Teachers 3 credits. Topics from geometry, probability, and statistics. Emphasis on principles, representations, and concept development. For elementary education majors. PREREQ: C- or better in MATH 1143, MATH 1147, CET 1120, or ELTR 1142, or one of the following: ACT > 26, SAT > 619, or pass Math Placement Exam Part C. S

MATH 2275 Calculus III 4 credits. Third course in the sequence 1170, 1175, 2275. Multivariable calculus. Vector algebra and geometry. Functions of several variables. Differentiation. Optimization. Multiple Integrals. Parametric curves and surfaces. Line and surface integrals. Vector fields. Green's, Stokes', and divergence theorems. PREREQ: MATH 1175. F, S

MATH 2287 Foundations of Mathematics 3 credits. Logic and proofs, sets, functions, relations, mathematical induction, and the cardinality of sets. PREREQ: MATH 1170. F

MATH 3326 Elementary Analysis 3 credits. A beginning course in analysis on the real line. Proof writing and the underlying logic are emphasized throughout the course. Topics include sets and functions, sequences, convergence, limits, continuity, and infinite series. PREREQ: MATH 1175 and either MATH 2240 or MATH 2287. F, S

MATH 3327 Vector Analysis 3 credits. Calculus of vector functions of several variables, derivative matrix, chain rule, inverse function theorem, multiple integration. Change of variables. Integrals over curves and surfaces. Green's, Stokes' and divergence theorems. Applications to physics. PREREQ: MATH 2275. F

MATH 3343 Modern Geometry I 3 credits. Planar Euclidian geometry. Rigid motions and symmetry in the plane. PREREQ: MATH 2240 and MATH 2287. F

MATH 3350 Statistical Methods 3 credits. A calculus-based introduction to statistical procedures, including simple regression, basic experimental design, and non-parametric methods. PREREQ: MATH 1160 or MATH 1170. F, S

MATH 3352 Introduction to Probability 3 credits. Fundamentals of probability, discrete and continuous random variables, distributions such as binomial, uniform, Poisson, hypergeometric, normal, gamma; expectation; joint, marginal, conditional distributions; central limit theorem; applications to statistics. Emphasizes material needed to develop statistical inference methods. PREREQ: MATH 1175 or permission of instructor. F

MATH 3355 Operations Research 3 credits. Deterministic problems in operations research oriented towards business. Includes linear programming, transportation problems, network analysis, PERT, dynamic programming, and elementary game theory. PREREQ: MATH 1130 or MATH 2240, or permission of instructor. AF

MATH 3356 Operations Research II 3 credits. Probabilistic models oriented towards business are treated. Selections from stochastic processes, Markov chains, queuing theory, inventory theory, reliability, decision analysis and simulation. PREREQ: MATH 3355. AS

MATH 3360 Differential Equations 3 credits. Theory and applications of ordinary differential equations. PREREQ: MATH 1175; MATH 2275 recommended. F, S

MATH 3362 Introduction to Complex Variables 3 credits. Introduction to the study of functions of a complex variable including the algebra and geometry of complex numbers, analytic functions, power series, integral theorems, and applications. PREREQ: MATH 2275. D

MATH 4406 Advanced Linear Algebra 3 credits. Advanced linear algebra with a strong emphasis on proof. Real and complex vector spaces, linear transformations, polynomials associated to matrices, determinants, canonical forms, inner product spaces. PREREQ: MATH 2240. S

MATH 4407 Modern Algebra I 3 credits. Rings, fields, groups, algebras, and selected topics in abstract algebra. PREREQ: MATH 2240 and MATH 2287. F

MATH 4408 Modern Algebra II 3 credits. Rings, fields, groups, algebras, and selected topics in abstract algebra. PREREQ: MATH 4407. S

MATH 4421 Advanced Engineering Mathematics I 3 credits. Analysis of complex linear and nonlinear engineering systems using advanced techniques, including Laplace transforms, Fourier series and classical partial differential equations. Cross-listed as ENGR 4421. PREREQ: MATH 3360. F

MATH 4422 Advanced Engineering Mathematics II 3 credits. Analysis of complex linear and nonlinear engineering systems using advanced techniques, including probability and statistics, advanced numerical methods and variational calculus. Cross-listed as ENGR 4422. PREREQ: ENGR 4421 or MATH 4421. S

MATH 4423 Introduction to Real Analysis I 3 credits. The real number system, limits, sequences, series and convergence; metric spaces; completeness; and selected topics on measure and integration theory. PREREQ: MATH 2240, MATH 3326, and MATH 3360. F

MATH 4424 Introduction to Real Analysis II 3 credits. The real number system, limits, sequences, series and convergence; metric spaces; completeness; and selected topics on measure and integration theory. PREREQ: MATH 4423. S

MATH 4435 Elementary Number Theory 3 credits. Diophantine equations, prime number theorems, residue systems, theorems of Fermat and Wilson, and continued fractions. PREREQ: MATH 4407. D

MATH 4441 Introduction to Numerical Analysis I 3 credits. Introduction to numerical techniques for solving problems dealing with nonlinear equations, systems of linear equations, differential equations, interpolation, numerical integration, and differentiation. PREREQ: MATH 2240, MATH 3326, and MATH 3360 or permission of instructor. F

Department of Military Science (Army ROTC)

Chair: Dewalt
Adjunct Faculty: Bunde
Affiliate Faculty: Hansen, Larson, Whiting

The U.S. Army Reserve Officers' Training Corps (ROTC) was established at Idaho State University under provisions recommended to the State Board of Education and in accordance with national requirements. Participation by students in the program is voluntary. The objective of the Advanced Course is to provide students who have the ability, and desire, the opportunity to become commissioned officers in the United States Army, Army Reserve, or Army National Guard. Students interested in scholarship information may contact Recruiter Logan Mecham at the Military Science office in the basement of Garrison Hall, (208) 282-4264.

Scope of Instruction

Instruction in ROTC is divided into the Basic Course and the Advanced Course. Each is described below.

General

The program of instruction leading to a commission as a second lieutenant consists of academic classes in military science, one or more several-week summer training events, and a bachelor's degree in an academic major (including the Bachelor of Applied Science and Bachelor of Applied Technology). Training in leadership is emphasized. Instruction is given in subjects common to all branches of the Army with emphasis placed on the following: organization of the Army and ROTC; individual weapons and marksmanship; military history; management; leadership; map reading, land navigation and orienteering; U.S. Army and national security; military teaching principles; tactics; communications; operations; logistics; administration; military law; and the role of the United States military in world affairs.

Basic Course

Normally taken the Freshman and Sophomore years, the basic course gives the student the opportunity to experience the Army without incurring any obligation.

Satisfactory completion of the Basic Course fulfills one of the requirements for continuation in the four-year program and acceptance into the Advanced Course. Those students desiring to take the Advanced Course, but lacking the credit for the Basic Course, may satisfy the requirements by attending a 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

MATH 4442 Introduction to Numerical Analysis II 3 credits. Extension of MATH 4441 for students who wish to pursue more advanced techniques with emphasis on analysis. Typical topics covered include numerical methods applied to partial differential equations, integral equations, and in-depth treatment of topics covered in MATH 4441. PREREQ: MATH 4441. S

MATH 4444 Modern Geometry II 3 credits. Transformation groups. Topics from hyperbolic, projective, and other geometries. S

MATH 4450 Mathematical Statistics 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 3326. F

MATH 4451 Mathematical Statistics II 3 credits. Probability, random variables, discrete and continuous distributions, order statistics, limit theorems, point and interval estimation, uniformly most powerful tests, likelihood ratio tests, chi-square and F tests, nonparametric tests. PREREQ: MATH 4450. S

MATH 4453 Topics in Statistics 1-3 credits. Content varies. May be repeated for up to 6 credits. PREREQ: Permission of instructor. D

MATH 4457 Applied Regression Analysis 3 credits. Simple and multiple linear regression, polynomial regression, diagnostics, model selection, models with categorical variables. PREREQ: MATH 3350 or MATH 3352 or permission of instructor. D

MATH 4458 Experimental Design 3 credits. The linear model for experimental designs, analysis of variance and covariance, block designs, factorial designs, nested designs, choice of sample size. PREREQ: MATH 3350 or MATH 3352 or permission of instructor. D

MATH 4459 Applied Multivariate Analysis 3 credits. Matrix computation of summary statistics, graphical analysis of multivariate procedures, multivariate normal distribution, MANOVA, multivariate linear regression, principal components, factor analysis, canonical correlation analysis. PREREQ: MATH 2240 and one of the following: MATH 3350, MATH 4457, MATH 4458, or permission of instructor. D

MATH 4465 Partial Differential Equations 3 credits. Equations of the first and second orders, methods of solution, Laplace's equation, heat equation, and wave equation. Emphasis on applications in physical sciences and engineering. PREREQ: MATH 2275 and MATH 3360. D

MATH 4473 Introduction to Topology 3 credits. Metric spaces; convergence; notions of continuity; connected, separable and compact spaces. PREREQ: Permission of instructor. D

MATH 4481 Directed Readings and Problems 1-3 credits. Individual work under the direction of a professor. May be repeated for up to 6 credits. PREREQ: Senior or graduate student in good standing. D

MATH 4491 Mathematics Seminar 1-3 credits. Advanced reading and discussion on selected topics in mathematics. May be repeated. PREREQ: 90 credits or equivalent. D

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.

- 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.
- 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 tax-free subsistence allowance for 10 months per year, increasing yearly upon progression through Military Science. Each student selected for a scholarship must serve in the National Guard, Reserves, or Active Duty as a commissioned officer upon commissioning. For more information please log on to www.rotc.usaac.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 Courses/Activities

Basic Course (choose a, b, or c):

a) The following four courses:

MSL 1101, 1101L	Leadership and Personal Development, and Lab	2 cr
MSL 1102, 1102L	Introduction to Tactical Leadership, and Lab	2 cr
MSL 2201, 2201L	Innovative Team Leadership, and Lab	3 cr
MSL 2202, 2202L	Foundations of Tactical Leadership, and Lab	3 cr

Optional:

MSL 1110	Military Style Physical Fitness, Civilian Only	1 cr
MSL 1104	Ranger Challenge	1 cr

(b) Attendance at ROTC Leaders Training Course,* 6 cr

(c) Prior military service

*Attendance at ROTC Leader Training Course (LTC) is one means of completing the Basic Course. Students may sign up for MSL 2290 to receive 6 elective credits for LTC.

ROTC Advanced Course:

MSL 3301, 3301L	Adaptive Tactical Leadership, and Lab	4 cr
MSL 3302, 3302L	Leadership in Changing Environments, and Lab	4 cr
MSL 3310	ROTC Physical Fitness*	1 cr
MSL 3320	Leadership in U.S. Military History	3 cr
MSL 4401, 4401L	Developing Adaptive Leaders, and Lab	4 cr
MSL 4402, 4402L	Leadership in a Complex World, and Lab	4 cr

Optional:

MSL 1104	Ranger Challenge	1 cr
MSL 3380	ROTC Nurse Summer Training	3 cr
MSL 3390	Leader Development and Assessment Course***	6 cr
MSL 4492	Military Science Internship	6 cr

** Required if student is on scholarship and/or contracted.

***Attendance at Leader Development and Assessment Course (MSL 3390) is required of all contracted students normally between junior and senior year. Students may sign up for MSL 3390 to receive academic credit for Leader Development and Assessment Course.

Minor in Military Science

(For contracted cadets ONLY)

Required Military Science Courses :

MSL 3301, 3301L	Adaptive Team Leadership, and Lab	4 cr
MSL 3302, 3302L	Leadership in Changing Environments	4 cr
MSL 3310	ROTC Physical Fitness*	4 cr
MSL 3320	Leadership in Military History	3 cr
MSL 3390	Leader Development and Assessment	6 cr
MSL 4401, 4401L	Developing Adaptive Leaders	4 cr
MSL 4402, 4402L	Leadership in a Complex World	4 cr
MSL 4492	Military Science Internship (SMP)**	6 cr
		TOTAL: 35 cr

*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 1101 Leadership and Personal Development 2 credits. Introduces personal challenges and competencies critical for effective leadership. Learn life skills such as critical thinking, goal setting, time management, physical fitness, and stress management, as related to leadership, officership, and the Army profession. Develop basic knowledge and comprehension of Army leadership dimensions, the ROTC program, its purpose, and its advantages. COREQ: MSL 1101L. F

MSL 1101L Leadership and Personal Development Laboratory 0 credit. Practical application of classroom instruction, leadership exercises, adventure training, military skills, and tactical instruction. Military branch and rank orientation is also applied. COREQ: MSL 1101. F

MSL 1102 Introduction to Tactical Leadership 2 credits. Setting direction, problem-solving, listening, presenting briefs, providing feedback, and using effective writing skills. Students explore dimensions of leadership values, attributes, skills, and actions in the context of practical, hands-on, and interactive exercises. Explore in more detail the Army's leadership philosophy and learn fundamental military concepts. COREQ: MSL 1102L. S

MSL 1102L Introduction to Tactical Leadership Laboratory 0 credit. Practical application of classroom instruction, leadership exercises, adventure training, military skills, and tactical instruction. Military branch and rank orientation is also applied. COREQ: MSL 1102. S

MSL 1104 Ranger Challenge 1 credit. Students are instructed in basic military/survival skills: field expedient bridging, marksmanship, individual weapons familiarization, individual tactical movement, and physical readiness. Culminates in team competitions with other universities. May be repeated for up to 4 credits by Military Science students. F

MSL 1110 Military Style Physical Fitness, Civilian Only 1 credit. Participate in and learn

to lead a physical fitness program. Emphasis on developing an individual fitness program and the role of exercise and fitness in one's life. Cross-listed as PEAC 1110. F, S

MSL 2201 Innovative Team Leadership 3 credits. Explore creative and innovative tactical leadership strategies and styles; examine team dynamics and two historical leadership theories. Includes planning, executing and assessing team exercises and participating in leadership labs as well as land navigation and squad tactics. COREQ: MSL 2201L. F

MSL 2201L Innovative Team Leadership Laboratory 0 credit. Practical application of classroom instruction, leadership exercises, adventure training, military skills, and tactical instruction. Military branch and rank orientation are also applied. COREQ: MSL 2201. F

MSL 2202 Foundations of Tactical Leadership 3 credits. Terrain analysis, patrolling, operation orders, and other challenges of leading tactical teams in the contemporary operating environment (COE). Students assess their own leadership styles and practice communication and team building. COE case studies reflect the importance and practice of teamwork and tactics in real-world scenarios. COREQ: MSL 2202L. S

MSL 2202L Foundations of Tactical Leadership Laboratory 0 credit. Practical application of classroom instruction, leadership exercises, adventure training, military skills, and tactical instruction. Military branch and rank orientation is also applied. COREQ: MSL 2202. S

MSL 2290 ROTC Leaders Training Course 6 credits. 5-week summer course taken at Fort Knox, KY, provides an introduction to military science for students having little or no military experience. Provides experiences in management, teaching, first aid, physical conditioning. Qualifies student for ROTC Advanced Course. PREREQ: Permission of Chair. F

MSL 3301 Adaptive Tactical Leadership 4 credits. Study, practice, develop, and evaluate adaptive leadership skills using squad tactical operations scenarios and systematic feedback on leadership attributes and actions. Cadets develop tactical leadership abilities to enable success at the summer Leadership Development and Assessment Course. PREREQ: Contracted MSL student. COREQ: MSL 3301L. F

MSL 3301L Adaptive Team Leadership Laboratory 0 credit. Practical application of classroom instruction, leadership exercises, adventure training, military skills, and tactical instruction. Military branch and rank orientation are also applied. COREQ: MSL 3301. F

MSL 3302 Leadership in Changing Environments 4 credits. Intense situational leadership challenges to build cadet awareness and skills in leading tactical operations up to platoon level. Review aspects of combat, stability, and support operations; conduct military briefings; develop operation orders. Explore, evaluate, and develop skills in decision-making, persuading, and motivating team members in the COE. PREREQ: MSL 3301. COREQ: MSL 302L. S

MSL 3302L Leadership in Changing Environments Laboratory 0 credit. Practical application of classroom instruction, leadership

exercises, adventure training, military skills, and tactical instruction. Military branch and rank orientation are also applied. COREQ: MSL 3302. S

MSL 3310 ROTC Physical Fitness 1 credit. Participate in, plan and lead physical fitness programs. Develop the physical fitness requirements of an officer in the Army. Emphasis on developing an individual fitness program and the role of exercise and fitness in one's life. May be repeated for up to 8 credits by contracted Military Science students. COREQ: Enrolled in MSL class. F, S

MSL 3320 Leadership in U.S. Military History 3 credits. Introduction to American military experience. Personal and military examples of changes made as a result of lessons learned from history. Accounts from major wars and battles throughout U.S. history are described to focus on how leadership decisions affected the success or failure of military operations. PREREQ: Contracted student or permission of instructor. F, S

MSL 3380 ROTC Nurse Seminar Training 3 credits. Clinical leadership experience with an Army Nurse Corps preceptor at an Army hospital in the US or overseas after completion of Leader Development and Assessment Course (MSL 3390). PREREQ: MSL 3390 and one clinical nursing course. F

MSL 3390 Leader Development and Assessment Course (LDAC) 6 credits. Culmination of MSL 3301 and MSL 3302; Leader Development and Assessment Course at Fort Lewis, Washington. Required of all contracted students, normally between junior and senior years. PREREQ: MSL 3301 and MSL 3302. F

MSL 4401 Developing Adaptive Leaders 4 credits. Develop proficiency in planning, executing, and assessing complex operations, and in functioning as a member of a staff. Provide performance feedback to subordinates by assessing risk, making ethical decisions, and leading fellow ROTC cadets. Lessons on military justice and personnel processes prepare cadets to make the transition to becoming officers. PREREQ: MSL 3301 and MSL 3302. COREQ: MSL 4401L. F

MSL 4401L Developing Adaptive Leaders Laboratory 0 credit. Practical application of classroom instruction, leadership exercises, adventure training, military skills, and tactical instruction. Military branch and rank orientation are also applied. COREQ: MSL 4401. F

MSL 4402 Leadership in a Complex World 4 credits. Explore dynamics of leading in complex situations of current military operations in the COE. Examine differences in customs and courtesies, military law, principles of war, and rules of engagement in the face of international terrorism. Explore aspects of interacting with non-government identities/civilians on the battlefield. PREREQ: MSL 4401. COREQ: MSL 4402L. S

MSL 4402L Leadership in a Complex World Laboratory 0 credit. Practical application of classroom instruction, leadership exercises, adventure training, military skills, and tactical instruction. Military branch and rank orientation are also applied. COREQ: MSL 4402. S

MSL 4492 Military Science Internship 6 credits. Apply skills learned in MSL program. PREREQ: Permission of Chair. COREQ: Simultaneous membership in ROTC and Army Reserves/National Guard. S

Department of Music

Chair and Professor: Earles
Professors: Anderson, Bond, Brooks, Lane

Associate Professors: Hasenpflug, Livingston Friedley

Assistant Professors: Park, Schulte, K. York

Lecturer: S. Helman

Assistant Lecturer: Friedley

Adjunct Faculty: G. Adams, M. Adams, Banyas, Drake, M. Helman, Hughes, LoPiccolo, O'Brien, M. York
Emeriti: George, Stanek

The Department of Music offers programs leading to Bachelor of Music, Bachelor of Arts, Bachelor of Science, and Bachelor of Music Education degrees. Students who major in music take courses that provide a broad cultural background for careers in music teaching, performance, graduate study and music-related work. Membership in organized music groups, including Wind Ensemble, Symphonic Band, Marching Band, Symphony Orchestra, Concert Choir, ISU Women's Choir, Camerata Singers Idaho State Symphony 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;

- To offer courses and musical experiences as an element of cultural enrichment for students who do not major in music;
- To provide opportunities for continued participation by all university students in various performing ensembles and other musical activities; and
- 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:

- 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.
- Students will gain a broad understanding of the history of music, focusing primarily upon Western musical culture, but also including an overview of world musics. Students will gain an understanding of how music functions within society and culture.
- Students will gain a broad understanding of music theory, including part writing, analysis, and composition.
- 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.
- Students, especially those in the Bachelor of Music Education degree, will gain knowledge and experience in the art of teaching music.
- 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 1118-1119, MUSC 2218-2219, or MUSC 1120 may be used toward passing the piano proficiency. The student must register for piano or piano class each semester until passing the proficiency exam.

Special Graduation Requirements

- 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.
- All Music majors must pass the department's Junior Standing Exam (usually taken at the end of the sophomore year) and register for, and pass, applied music lessons, a minimum of 2 semesters at the 3000 level, and 1-2 semesters at the 4000 level.

Music Department Handbook

A handbook is available online at <http://www.isu.edu/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

Goal 1	3 cr
Goal 2	3 cr
Goal 10B (French or German)	8 cr
<i>(Voice majors are strongly encouraged to elect one year of foreign language study in each language)</i>	
Social Sciences	12 cr
Natural and Physical Sciences (Including laboratories)	8 cr
Fine Arts or Humanities (not counting foreign language or music)	3 cr
Electives (other than music)	6 cr

TOTAL: 43 cr

Basic Music Requirements (common to all options)

MUSC 1103	Theory of Music I	3 cr
MUSC 1104	Theory of Music II	3 cr
MUSC 1107	Recital Attendance (seven semesters)	0 cr
MUSC 1108	The World of Music (Goal 6)	4 cr
MUSC 1113	Aural Skills I	1 cr
MUSC 1114	Aural Skills II	1 cr
MUSC 2203	Theory of Music III	3 cr
MUSC 2204	Theory of Music IV	3 cr
MUSC 2213	Aural Skills III	1 cr
MUSC 2214	Aural Skills IV	1 cr
MUSC 3304	Music History I	3 cr
MUSC 3305	Music History II	3 cr
MUSC 3306	Music History III	3 cr
MUSC 3311	Form and Analysis	2 cr
MUSC 4495	Senior Recital	2 cr
	Piano Proficiency*	4 cr
	Upper Division Music Theory/History Elective	2 or 3 cr
	Other Music Electives**	2 cr

* Piano proficiency is required for all degree candidates. Applied music secondary credits (MUSC 1118-1119, MUSC 2218-2219, or MUSC 1120) may be used toward passing the piano proficiency. The student must register for piano each semester until able to pass the proficiency exam.

**Music electives must be chosen from Music Courses, not from Applied Music or Music Ensembles (Performing Organizations).

Voice Option

MUSC 2225	Voice Diction	2 cr
MUSC 3319	Choral Conducting	2 cr
MUSC 3325	Advanced Voice Diction	2 cr
MUSC 4419	Voice Literature	3 cr
MUSC 4420	Voice Pedagogy	3 cr
	Applied Music (voice)	16 cr
	Large Ensembles (choir)	8 cr
	Opera Workshop	2 cr

Piano Option

MUSC 3319	Choral Conducting	2 cr
	OR	
MUSC 3320	Instrumental Conducting	2 cr
MUSC 3395	Junior Recital	1 cr
MUSC 4413	Piano Literature	2 cr
MUSC 4414	Piano Pedagogy	2 cr
	Applied Music (piano)	24 cr
	Large Ensembles (band, orchestra, choir)	7 cr
	Chamber Music (keyboard collaboration)	4 cr

Instrumental Option

MUSC 3320	Instrumental Conducting	2 cr
MUSC 4411	Instrument Literature	2 cr
MUSC 4412	Instrument Pedagogy	2 cr
	Applied Music (major instrument)	24 cr
	Large Ensembles (band, orchestra, choir)	8 cr
	Chamber Music (instrumental ensemble)	4 cr

Bachelor of Music Education

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

Music Education students must complete requirements and be fully admitted to the Teacher Education Program before they can take courses in Professional Education

number 3000 and above. Refer to the Teacher Education Program in the College of Education section of this Undergraduate Catalog.

Basic Music Requirements

MUSC 1103	Theory of Music I	3 cr
MUSC 1104	Theory of Music II	3 cr
MUSC 1107	Recital attendance (7 semesters)	0 cr
MUSC 1108	The World of Music (Goal 6)	4 cr
MUSC 1113	Aural Skills I	1 cr
MUSC 1114	Aural Skills II	1 cr
MUSC 1127	Class Voice	1 cr
	OR	
MUSC 1172	ISU Women's Choir	1 cr
	OR	
MUSC 1173	Concert Choir	1 cr
MUSC 2203	Theory of Music III	3 cr
MUSC 2204	Theory of Music IV	3 cr
MUSC 2213	Aural Skills III	1 cr
MUSC 2214	Aural Skills IV	1 cr
MUSC 2252	Introduction to Music Education	1 cr
MUSC 2255	Woodwind Methods	2 cr
MUSC 2256	Brass Methods	2 cr
MUSC 2258	Percussion Methods	2 cr
MUSC 2259	String Methods	2 cr
MUSC 3304	Music History I	3 cr
MUSC 3305	Music History II	3 cr
MUSC 3306	Music History III	3 cr
MUSC 3311	Form and Analysis	2 cr
MUSC 3312	Music Technology	2 cr
MUSC 3319	Choral Conducting	2 cr
MUSC 3320	Instrumental Conducting	2 cr
MUSC 3333	Elementary Music Methods	3 cr
MUSC 3334	Choral Music Methods	2 cr
MUSC 3335	Instrumental Music Methods	2 cr
MUSC 3338	Field Experience in Music Education	2 cr
MUSC 4401	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 1118-1119, MUSC 2218-2219, or MUSC 1120) may be used toward passing the piano proficiency. The student must register for piano each semester until able to pass the proficiency exam.

Professional Education Requirements

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

Note: Music Education students are not required to take EDUC 2215, which is normally part of the Education core courses.

General Education Requirements

Goals 1, 2, 3, 4, 5, 6, 7, 8, 9, 10A or 10B, 11, 12

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 1103	Theory of Music I	3 cr
MUSC 1104	Theory of Music II	3 cr
MUSC 1107	Recital attendance (7 semesters)	0 cr
MUSC 1108	The World of Music (Goal 6)	4 cr
MUSC 1113	Aural Skills I	1 cr
MUSC 1114	Aural Skills II	1 cr
MUSC 2203	Theory of Music III	3 cr
MUSC 2204	Theory of Music IV	3 cr
MUSC 2213	Aural Skills III	1 cr
MUSC 2214	Aural Skills IV	1 cr
MUSC 3304	Music History I	3 cr
MUSC 3305	Music History II	3 cr
MUSC 3306	Music History III	3 cr
MUSC 3311	Form and Analysis	2 cr
MUSC 4495	Senior recital	2 cr
	Applied Music Piano Proficiency*	8 cr
	Large Ensembles (band, orchestra, choir) Chamber Ensembles	8 cr
	Upper Division Music Theory/History Elective	2 or 3 cr
	Other Music Electives**	2 cr

* Piano proficiency is required for all degree candidates. Applied music secondary credits (MUSC 1118-1119, MUSC 2218-2219, or MUSC 1120) may be used toward passing the piano proficiency. The student must register for piano each semester until able to pass the proficiency exam.

** Music electives must be chosen from Music Courses, not from Applied Music or Music Ensembles (Performing Organizations).

Minor in Music

Required Courses

MUSC 1103	Theory of Music I	3 cr
MUSC 1104	Theory of Music II	3 cr
MUSC 1107	Recital attendance (4 semesters)	0 cr
MUSC 1108	The World of Music (Goal 6)	4 cr
MUSC 1113	Aural Skills I	1 cr
MUSC 1114	Aural Skills II	1 cr

Applied Music

(2 credits at the 1000 level,
2 credits at the 2000 level)

Large Performing Ensembles

(Band, Choir, Orchestra) 4 cr
Music Elective 2 cr

Performing Organizations

Membership in organized music groups is open to all university students subject to approval of the respective directors. All ensembles listed below may be repeated at any time without limitation. However, only 8 credits of music ensembles can be counted toward graduation credit hour requirements. All music majors are required to participate in a large ensemble (band, orchestra, choir) as a portion of their applied music study. **Participation in chamber ensembles is expected during the degree program with a chamber ensemble performance required as a portion of the student's senior recital program.

MUSC 1163 Chamber Orchestra 1 credit. Study and performance of traditional and modern works for chamber orchestra. F, S

MUSC 1166 Chamber Choir 1 credit. Reading, study and performance of representative literature for chamber choir. Emphasis is placed on the individual's contribution toward the highest of choral standards. Open to all students by audition. May be repeated. F, S

MUSC 1167 Opera Workshop 1 credit. Ensemble course devoted to the study of opera from the standpoint of workshop. May be repeated. S

MUSC 1168 Instrumental Ensemble 1 credit. Ensemble training in various instrument combinations, such as string quartet and various woodwind and brass ensembles. Section 1, Woodwind Ensemble; 2, Brass Ensemble; 3, Percussion Ensemble; 4, String Ensemble; 5, Keyboard Ensemble. May be repeated. F, S

MUSC 1169 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 1170 Camerata Singers/Idaho State Chorale 1 credit. Reading, study, and performance of representative choral literature. Open to community members and students. Does not meet the ensemble requirement for music majors. May be repeated. F, S

MUSC 1172 ISU Women's Choir 1 credit. Study, rehearsal and performance of traditional and non-traditional choral music for treble voices. May be repeated. F, S

MUSC 1173 Concert Choir 1 credit. Study and performance of the entire body of choral music. Includes several performances and concerts. Emphasis on attaining high musical standards and levels of choral-vocal proficiency. Open to all students by audition. May be repeated. F, S

MUSC 1177 Symphonic Band 1 credit. Rehearsal and performance of traditional and contemporary wind literature in on- and off-campus concerts. Open to all students by audition. May be repeated. F, S

MUSC 1178 Jazz Band 1 credit. Rehearsal and performance of standard and contemporary big-band literature. One or two concerts are given each semester. Open to all students by audition. May be repeated. F, S

MUSC 1179 Bengal Marching Band 1 credit. Rehearsal and performance at home football games and other events. May include travel to selected away football games. Open to all students by audition. May be repeated. F

MUSC 4463 Chamber Orchestra 1 credit. Study and performance of traditional and modern works for chamber orchestra. PREREQ: Junior level standing in applied music. F, S

MUSC 4466 Chamber Choir 1 credit. Reading, study and performance of representative literature for chamber choir. Emphasis is placed on the individual's contribution toward the highest of choral standards. May be repeated. PREREQ: Junior level standing in applied music. F, S

MUSC 4467 Opera Workshop 1 credit. Ensemble course devoted to the study and presentation of an opera. May be repeated. PREREQ: Junior level standing in applied music. S

MUSC 4468 Instrumental Ensemble 1 credit. Ensemble training in various instrument combinations, such as string quartet and various woodwind and brass ensembles. Section 1, Woodwind Ensemble; 2, Brass Ensemble; 3, Percussion Ensemble; 4, String Ensemble; 5, Keyboard Ensemble. May be repeated. PREREQ: Junior level standing in applied music. F, S

MUSC 4469 Orchestra 1 credit. Sight reading of representative orchestral literature; orchestral routine, study, and public performance of major symphonic compositions including orchestral accompaniments. May be repeated. PREREQ: Junior level standing in applied music. F, S

MUSC 4472 ISU Women's Choir 1 credit. Study, rehearsal and performance of traditional and non-traditional choral music for treble voices. May be repeated. PREREQ: Junior level standing in applied music. F, S

MUSC 4473 Concert Choir 1 credit. Study and performance of the entire body of choral music. Includes several performances and concerts. Emphasis on attaining high musical standards and levels of choral vocal proficiency. May be repeated. PREREQ: Junior level standing in applied music. F, S

MUSC 4477 Symphonic Band 1 credit. Rehearsal and performance of traditional and contemporary wind literature in on- and off-campus concerts. May be repeated. PREREQ: Junior level standing in applied music. F, S

MUSC 4478 Jazz Band 1 credit. Rehearsal and performance of standard and contemporary big-band literature. One or two concerts are given each semester. May be repeated. PREREQ: Junior level standing in applied music. F, S

Applied Music— Private Lessons

Private lessons are offered in band and orchestral instruments, voice, piano, per-

cussion, and classical guitar for 1-3 credits each semester.

A special music fee is charged for enrollment in applied music. Students taking applied music lessons pay fees currently set at \$175, \$230, and \$350, depending on the level and length of the lessons. Please see the Class Schedule for the applicable fee under Applied Music Lessons.

Students desiring to major or minor in music will normally be classified as entering freshmen in the 1000 level of the series. All music majors must pass the department's Junior Standing Exam in applied music (usually taken at the end of the sophomore year) and register for, and pass, a minimum of 2 semesters at the 3000 level and 1-2 semesters at the 4000 level. Music Education students will take applied music for 1 credit per semester; Music Performance students will take applied music for 2-3 credits per semester.

	Freshman	Sophomore	Junior	Senior
Piano	1121	2221	3321	4421
Voice	1131	2231	3331	4431
Organ	1141	2241	3341	4441
Strings	1161	2261	3361	4461
Brass	1165	2265	3365	4465
Woodwinds	1175	2275	3375	4475
Percussion	1185	2285	3385	4485

Any student registering in any of the above course numbers will be required to register for MUSC 1107 and attend the weekly General Recital Hours/Studio Classes and evening concerts until degree requirements for recital attendance have been fulfilled.

A student who does not plan to attend the required recital hour/studio classes and evening concerts should register for one of the following secondary instruction course numbers.

MUSC 1120	Piano Secondary	1 cr
MUSC 1130	Voice Secondary	1 cr
MUSC 1140	Organ Secondary	1 cr
MUSC 1160	Strings Secondary	1 cr
MUSC 1164	Brass Secondary	1 cr
MUSC 1174	Woodwinds Secondary	1 cr
MUSC 1184	Percussion Secondary	1 cr

These courses are an undergraduate classification for non-majors, for prospective majors who do not yet meet the level of proficiency expected of a major, or for majors who wish to study an additional applied music area other than their major area.

Music Courses

MUSC 1100 Introduction to Music 3 credits. A listening-oriented course with Western art music as its principal focus. Designed for the general student. No music reading ability/performance skills are assumed. Credit cannot be granted in both MUSC 1100 and MUSC 1108. Satisfies Goal 6 of the General Education Requirements. F, S, Su

MUSC 1102 Elements of Music 2 credits. Introductory course for non-majors or prospective majors covering music reading/notation and elementary music theory. Music performance skills are not a prerequisite. D

MUSC 1103 Theory of Music I 3 credits. Melodic and harmonic part writing and basic analysis. Majors who have not passed piano proficiency should register concurrently with class piano MUSC 1118-1119 or MUSC 2218-2219. PREREQ: MUSC 1102 or equivalent. F

MUSC 1104 Theory of Music II 3 credits. Continuation of MUSC 1103. PREREQ: MUSC 1103 AND MUSC 1113. S

MUSC 1106 American Music 3 credits. A listening-oriented course for general students focusing on American folk, popular and art music styles. No music reading/performance skills assumed. Satisfies Goal 6 of the General Education Requirements. F, S, Su

MUSC 1107 Recital Attendance 0 credits. Attendance at weekly recital hour and prescribed number of evening concerts. Enrollment in this course is required of all students taking applied lessons numbered 1121-4485. Graded S/U. F, S

MUSC 1108 The World of Music 4 credits. A survey of world music, including styles of a variety of cultures, with a focus on Western art music. Music reading ability required. Credit cannot be granted in both MUSC 1100 and MUSC 1108. Satisfies Goal 6 of the General Education requirements. F

MUSC 1113 Aural Skills I 1 credit. Development of skills in sight singing, aural recognition, and critical listening. Designed to correlate with Theory of Music I. PREREQ: MUSC 1102 or equivalent. F

MUSC 1114 Aural Skills II 1 credit. Continued development of skills in sight singing, aural recognition, and critical listening. Designed to correlate with Theory of Music II. PREREQ: MUSC 1103 and MUSC 1113. S

MUSC 1118 Class Piano I 1 credit. Primarily for music and elementary education majors completing piano proficiency requirements. Normally taken concurrently with MUSC 1103. F

MUSC 1119 Class Piano II 1 credit. Primarily for music and elementary education majors completing piano proficiency requirements. Normally taken concurrently with MUSC 1104. S

MUSC 1125 Beginning Guitar Class 1 credit. Basic guitar technique and repertoire. Open to any student. Students must provide their own guitars. F, S

MUSC 1126 Intermediate Guitar Class 1 credit. Intermediate guitar technique and repertoire. Open to any student. Students must provide their own guitars. S

MUSC 1127 Class Voice 1 credit. Basic singing technique and vocal repertoire. Open to any student, including elementary education majors completing requirements. F, S

MUSC 2203 Theory of Music III 3 credits. Continued development in aural and visual

perception through analysis and writing of 18th, 19th, and 20th century styles. PREREQ: MUSC 1104 and MUSC 1114. F

MUSC 2204 Theory of Music IV 3 credits. Continuation of MUSC 2203. PREREQ: MUSC 2203 and MUSC 2213. S

MUSC 2213 Aural Skills III 1 credit. Continued development of skills in sight singing, aural recognition, and critical listening. Designed to correlate with Theory of Music III. PREREQ: MUSC 1104 and MUSC 1114. F

MUSC 2214 Aural Skills IV 1 credit. Continued development of skills in sight singing, aural recognition, and critical listening. Designed to correlate with Theory of Music IV. PREREQ: MUSC 2203 and MUSC 2213. S

MUSC 2218 Class Piano III 1 credit. Primarily for music and elementary education majors completing piano proficiency requirements. Normally taken concurrently with MUSC 2203. F

MUSC 2219 Class Piano IV 1 credit. Primarily for music and elementary education majors completing piano proficiency requirements. Normally taken concurrently with MUSC 2204. S

MUSC 2225 Voice Diction 2 credits. Principles of voice diction with emphasis on English and Italian. AF

MUSC 2233 Music Methods for Elementary Teachers 2 credits. Methodology/materials for teaching elementary school music. Basic skills for the classroom teacher include: basic notation, conducting, autoharp, Orff instruments, piano, recorder, guitar, singing, listening. Two lectures, one lab per week. F, S, Su

MUSC 2235 Singing for Actors 2 credits. Introduction to sound vocal technique and basic musicianship through the study of folk song and musical theater repertory. Selecting and preparing audition repertory. Vocal health issues. AF

MUSC 2252 Introduction to Music Education 1 credit. An introduction to music education philosophy, psychology, and history, and a survey of music education approaches. Requires nine hours of classroom observations. S

MUSC 2255 Woodwind Methods 2 credits. Designed primarily for music education majors. Application of the theory and playing techniques involved in teaching students to play woodwind instruments in band/orchestra. R1

MUSC 2256 Brass Methods 2 credits. Designed primarily for music education majors. Application of the theory and playing techniques involved in teaching students to play brass instruments in band/orchestra. R1

MUSC 2258 Percussion Methods 2 credits. Designed primarily for music education majors. Application of the theory and playing techniques involved in teaching students to play percussion instruments in band/orchestra. R1

MUSC 2259 String Methods 2 credits. Designed primarily for music education majors. Application of the theory and playing techniques involved in teaching players of stringed instruments in band/orchestra. R1

MUSC 3304 Music History I 3 credits. Study of music and the development of Western Art music

from ancient times to circa 1750. Examination of major trends, including chant and song in the Middle Ages, *Ars Antiqua*, *Ars Nova*, Burgundian Music, the Renaissance, and the Baroque. PREREQ: ENGL 1102, MUSC 2203, and either MUSC 1100 or MUSC 1108. S

MUSC 3305 Music History II 3 credits. Study of Western Art music during the Pre-classic, Classic and Romantic periods. Examination of major trends and philosophies including the Enlightenment, Romanticism and Nationalism. PREREQ: ENGL 1102, MUSC 2203, and either MUSC 1100 or MUSC 1108. F

MUSC 3306 Music History III 3 credits. Study of music in Europe and America from Post-Romanticism to the present. Examination of major trends, including impressionism, expressionism, serialism, jazz, the avant-garde, neo-classicism, neo-romanticism, and post-modernism. PREREQ: ENGL 1102, MUSC 2204, and either MUSC 1100 or MUSC 1108, or permission of instructor. S

MUSC 3311 Form and Analysis 2 credits. Analysis and study of standard compositions from the Renaissance to the 20th century with emphasis on structural, stylistic, and historical aspects. PREREQ: MUSC 2203 and MUSC 2204. F

MUSC 3312 Music Technology 2 credits. Introduction to music technology concepts using computers and MIDI instruments. Includes computer accompaniments, improvisation and development of creativity. PREREQ: MUSC 1103 or permission of instructor. S

MUSC 3314 Jazz Improvisation 1 credit. Development of skills and knowledge necessary to become a competent jazz improviser. Activities include jazz theory, aural skills and practical applications. Proficient knowledge of scales and advanced instrumental technique are required. May be repeated for up to 2 credits. D

MUSC 3319 Choral Conducting 2 credits. A practical course in selecting and conducting choral materials, rehearsal techniques, use of small ensembles, planning and organization of choral groups. Students will work with ensemble groups for laboratory experience in conducting. PREREQ: MUSC 1104. F

MUSC 3320 Instrumental Conducting 2 credits. A practical course in selecting and conducting instrumental materials, rehearsal techniques, use of small ensembles, planning and organization of instrumental groups. Students will work with ensemble groups for laboratory experience in conducting. PREREQ: MUSC 1104. S

MUSC 3325 Advanced Voice Diction 2 credits. Principles of voice diction with emphasis on French, German and Latin. PREREQ: MUSC 2225. D

MUSC 3333 Elementary Music Methods 3 credits. Music curriculum, materials, and teaching techniques for the development of sequential experiences which contribute to children's musical growth in the elementary schools, including Kodaly, Orff, choral music, recorder, and guitar. Includes practicum. PREREQ: MUSC 2204, MUSC 2214, and MUSC 2252. D

MUSC 3334 Choral Music Methods 2 credits. Methods and materials of choral mu-

sic education in secondary schools including: ensemble instruction, classroom management and organization. PREREQ: MUSC 2204, MUSC 2214, and MUSC 2252. D

MUSC 3335 Instrumental Music Methods 2 credits. Methods and materials of instrumental music education in secondary schools including: ensemble instruction, classroom management and organization. PREREQ: MUSC 2252, MUSC 2255, MUSC 2256, MUSC 2258, and MUSC 2259. D

MUSC 3338 Field Experience in Music Education 2 credits. Student completes 30 hours of practicum within secondary school music settings, and develops teacher work samples. Graded S/U. D

MUSC 3395 Junior Recital 1 credit. A solo and/or collaborative public recital. PREREQ: Junior Level Standing in Applied Music. Graded S/U. F, S

MUSC 3397 Workshop 1-2 credits. Workshops aimed at the development and improvement of skills. Does not satisfy requirements for a major or a minor. May be repeated. Graded S/U. D

MUSC 4401 Orchestration 2 credits. Study of the characteristics of individual instruments and their combinations from section to full orchestral scoring. Scores, recordings, and performances may be used as available and appropriate. PREREQ: MUSC 2204. AS

MUSC 4406 Opera Literature 3 credits. Masterworks of operatic literature. PREREQ: MUSC 3304, MUSC 3305 and MUSC 3306. D

MUSC 4407 Symphonic Music Literature 3 credits. Masterworks of symphonic literature. PREREQ: MUSC 3304, MUSC 3305 and MUSC 3306. D

MUSC 4408 Chamber Music Literature 3 credits. Masterworks of chamber music literature. PREREQ: MUSC 3304, MUSC 3305 and MUSC 3306. D

MUSC 4411 Instrument Literature 2 credits. A study of instructional materials and literature for an orchestral instrument or guitar. PREREQ: Junior level standing in applied music or permission of instructor. D

MUSC 4412 Instrument Pedagogy 2 credits. A survey and comparative study of pedagogical materials, principles and procedures. Application of pedagogical techniques in teaching situations. PREREQ: Junior level standing in applied music or permission of instructor. D

MUSC 4413 Piano Literature 2 credits. A study of instructional materials and literature for piano. PREREQ: Junior level standing in applied music or permission of instructor. D

MUSC 4414 Piano Pedagogy 2 credits. A survey and comparative study of pedagogical materials, principles and procedures for piano. Application of pedagogical techniques in teaching situations. PREREQ: Junior level standing in applied music or permission of instructor. D

MUSC 4415 Seminar in Band Music 2 credits. Analysis and study of instrumental works from the Baroque to the present era with particular attention to performance practice. PREREQ: MUSC 3305 and MUSC 3306 or equivalent. D

MUSC 4416 Seminar in Choral Music 2 credits. Analysis and study of choral works from the Renaissance through the present era with particular attention to performance practice. PREREQ: MUSC 3305 and MUSC 3306 or equivalent. D

MUSC 4418 Seminar in Orchestral Music 2 credits. Analysis and study of orchestral works from the Baroque to the present era with particular attention to performance practice. PREREQ: MUSC 3305 and MUSC 3306 or equivalent. D

MUSC 4419 Voice Literature 3 credits. Instructional materials and literature for voice. PREREQ: Junior level standing in applied music or permission of instructor. AS

MUSC 4420 Voice Pedagogy 3 credits. A survey and comparative study of pedagogical materials, principles and procedures for voice, with application. PREREQ: Junior level standing in applied music or permission of instructor. AS

MUSC 4424 Music in the Baroque Era 3 credits. Intensive study of music from Monteverdi through J.S. Bach. PREREQ: MUSC 3304. D

MUSC 4425 Music in the Classical Era 3 credits. Intensive study of music in the Classical era, principally 1730 through Beethoven. PREREQ: MUSC 3305. D

MUSC 4426 Music in the Romantic Era 3 credits. Intensive study of music in the Romantic era, principally 1800 to 1900. PREREQ: MUSC 3305. D

MUSC 4427 Music in the Modern Era 3 credits. Intensive study of music in the Modern era, principally since 1900. PREREQ: MUSC 3306. D

MUSC 4429 Advanced Music History Survey 3 credits. Study of music history topics, including vocal and instrumental forms and styles. PREREQ: MUSC 3304, MUSC 3305 and MUSC 3306. D

MUSC 4432 Instrumental Arranging 2 credits. Arranging music for different instrumental combinations and various textures. PREREQ: MUSC 2204 D

MUSC 4433 Composition 2 credits. Individual instruction in the organization of musical ideas into logical and homogeneous forms with an emphasis on contemporary styles. May be repeated for up to 12 credits. PREREQ: MUSC 2204 or permission of instructor. F, S

MUSC 4435 Analysis of Musical Styles 2 credits. The techniques of stylistic analysis of music from the Baroque period through the 20th century. PREREQ: MUSC 3311 D

MUSC 4438 Special Topics in Music Theory 2 credits. Advanced studies in selected topics in music theory. May be repeated for up to 6 credits with change of topic. PREREQ: MUSC 3311. D

MUSC 4439 Advanced Music Theory Survey 3 credits. Study of music theory methods, including harmonic and formal analysis. PREREQ: MUSC 3311. D

MUSC 4445 Advanced Instrumental Conducting 2 credits. Designed for secondary

school music educators. Practical experience in analyzing and rehearsing instrumental conducting techniques for a wide variety of instrumental music. PREREQ: MUSC 3320. D

MUSC 4446 Advanced Choral Conducting 2 credits. Designed for secondary school music educators, Practical experience in analyzing and rehearsing choral conducting techniques for a wide variety of choral music. PREREQ: MUSC 3319. D

MUSC 4491 Independent Study 1-4 credits. Supervised study in selected areas, primarily research, writing, or analysis. May be repeated for up to 7 credits. PREREQ: Permission of instructor and the department Chair. D

MUSC 4495 Senior Recital 2 credits. Graded S/U. F, S

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

Department of Physics

Interim Chair and Professor: Shropshire
Professors: Brey, Dale, Gesell, Wells
Associate Professors: Cole, Keeter, Tatar
Research Associate Professors:

Chouffani, Dimitrov, Forest, Hunt
Assistant Professor: Harris
Research Assistant Professors: Chandler,
Mitchell

Senior Lecturer: Hackworth
Visiting Assistant Lecturer: Bernabee
Research Instructors: Claver, Dunker
Adjunct Faculty: Clarke, DeVeaux,

Espy, Harker, James, Jones, Merrill,
Nigg, Roney, Schrader, White
Affiliate Faculty: Blackburn, Cummings,
DeVeaux, Espy, Farfan, Franckowiak,
Hall, Harker, James, Jones, Langley,
Merrill, Millward, Nigg, Neischmidt,
O'Rear, Otis, Rich, Ritter, Roney, White
Emeriti: Beezold, 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 declare 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:

MATH 1170	Calculus I	4 cr
MATH 1175	Calculus II	4 cr
MATH 2275	Calculus III	4 cr
MATH 3360	Differential Equations	3 cr

At least 24 credits of Physics, including:

PHYS 2211-2212	Engineering Physics	8 cr
	OR	
PHYS 1111-1112	General Physics	6 cr
PHYS 2213-2214	Engineering Physics Laboratory	2 cr
	OR	
PHYS 1113-1114	General Physics Laboratory	2 cr
PHYS 3301	Modern Physics	3 cr
	AND	

11-13 credits of electives (depending upon the introductory sequence) with at least 6 credits of 4000-level courses (PHYS 4492 cannot be counted toward the latter requirement).

Bachelor of Science in Physics

The following courses are required in addition to the General Education Requirements for the B.S. Degree:

CHEM 1111, 1111L	General Chemistry I, and Lab	5 cr
CHEM 1112, 1112L	General Chemistry II, and Lab	4 cr
MATH 1170	Calculus I	4 cr
MATH 1175	Calculus II	4 cr
MATH 2275	Calculus III	4 cr
MATH 3360	Differential Equations	3 cr
MATH 4421, 4422	Advanced Engineering Mathematics I and II	6 cr
	OR	
MATH 4461, 4462	Introduction to Mathematical Physics I and II	6 cr
PHYS 2211,2212	Engineering Physics	8 cr
PHYS 2213,2214	Engineering Physics Laboratory	2 cr
PHYS 3301	Modern Physics	3 cr
PHYS 3313	Intermediate Laboratory I	2 cr
PHYS 4403,4404	Advanced Modern Physics	6 cr
PHYS 4406	Advanced Physics Laboratory II	2 cr
PHYS 4416	Radiation Detection and Measurement	3 cr
PHYS 4421,4422	Electricity and Magnetism	6 cr
PHYS 4483	Theoretical Mechanics	4 cr
PHYS 4492	Colloquium in Physics	1 cr
Plus 6 additional 4000-level PHYS credits		

Physics Minor

MATH 1170	Calculus I	4 cr
MATH 1175	Calculus II	4 cr
MATH 2275	Calculus III	4 cr
MATH 3360	Differential Equations	3 cr
PHYS 2211,2212	Engineering Physics	8 cr
PHYS 3301	Modern Physics	3 cr
PHYS 4403	Advanced Modern Physics	3 cr
IN ADDITION:	Physics electives approved by the department	4 cr

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:

BIOL 1101, 1102	Biology I and Lab	4 cr
BIOL 3301	Anatomy and Physiology	4 cr
BIOL 3302	Anatomy and Physiology	4 cr
CHEM 1102, 1103	Introduction to Organic and Biochemistry, and Lab	4 cr
CHEM 1111, 1111L	General Chemistry I, and Lab	5 cr
CHEM 1112, 1112L	General Chemistry II, and Lab	4 cr
CS 1181	Computer Science and Programming I	3 cr
ENGL 3307	Professional and Technical Writing	3 cr
MATH 1147	Precalculus	5 cr
PHYS 4416	Radiation Detection and Measurement	3 cr
PHYS 4431	Radiation Physics I	3 cr
PHYS 4432	Radiation Physics II	3 cr
PHYS 4433	External Dosimetry	3 cr
PHYS 4434	Internal Dosimetry	3 cr
PHYS 4455	Topics in Health Physics I	2 cr
PHYS 4456	Topics in Health Physics II	2 cr
PHYS 4480	Health Physics Capstone	3 cr
PHYS 4488	Advanced Radiobiology	3 cr
PHYS 4492	Colloquium	2 cr

Bioscience Track

BIOL 2209	General Ecology	3 cr
BIOL 3315	Introduction to Biometry	3 cr
MATH 1160	Applied Calculus	3 cr
PHYS 1111	General Physics I	3 cr
PHYS 1112	General Physics II	3 cr
PHYS 1113,1114	General Physics Laboratory	2 cr

Applied Science Track

MATH 3350	Statistical Methods	3 cr
MATH 1170	Calculus I	4 cr
MATH 1175	Calculus II	4 cr
MATH 2275	Calculus III	4 cr
PHYS 2211,2212	Engineering Physics	8 cr
PHYS 2213,2214	Engineering Physics Laboratory	2 cr

Associate of Science in Physics

Students seeking an Associate of Science degree in Physics must complete the following:

General Education Goals for the Bachelor of Science* variable		
CHEM 1111, 1111L	General Chemistry I, and Lab	5 cr
CHEM 1112, 1112L	General Chemistry II, and Lab	4 cr
MATH 1170	Calculus I	4 cr
MATH 1175	Calculus II	4 cr

MATH 2275	Calculus III	4 cr
PHYS 2211, 2213	Engineering Physics I and Lab	5 cr
PHYS 2212, 2214	Engineering Physics II and Lab	5 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.

PHYS 2225	Radiation Protection Instrumentation	3 cr
PHYS 2227	Radiation Protection II	3 cr

Spring 2nd Year

PHYS 1112	General Physics II	3 cr
PHYS 1114	General Physics II Laboratory I	1 cr
CHEM 1112, 1112L	General Chemistry II, and Lab	4 cr
PHYS 2228	Health Physics Regulations	3 cr
PHIL 1101	Introduction to Philosophy	3 cr
BIOL 3307	Radiobiology	2 cr
Goal 6 or 7		3 cr

Total: 76 or 79 cr

PHYS 1153 Descriptive Astronomy Laboratory 1 credit. Use of astronomical equipment, telescopes, cameras, etc. With PHYS 1152, satisfies Goal 5 of the General Education Requirements. F, S, Su

PHYS 2211 Engineering Physics 4 credits. Mechanics of particles and rigid bodies; kinetic theory and thermodynamics; electricity and magnetism; wave motion; optics. COREQ: MATH 1175. F, S

PHYS 2212 Engineering Physics 4 credits. Mechanics of particles and rigid bodies; kinetic theory and thermodynamics; electricity and magnetism; wave motion; optics. PREREQ: PHYS 2211. F, S

PHYS 2213 Engineering Physics I Laboratory 1 credit. Principles and methods of physical measurement. COREQ: PHYS 2211. F, S

PHYS 2214 Engineering Physics II Laboratory 1 credit. Principles and methods of physical measurement. COREQ: PHYS 2212. PREREQ: PHYS 2213. F, S

PHYS 2215 Thermal Physics 1 credit. Introduction to thermodynamics and kinetic theory. Designed for students who have taken AP Physics C in high school and have not had instruction in thermal physics normally covered in Engineering Physics I and II. COREQ: MATH 1175. D

PHYS 2275 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 3300 Medical Electronics 2 credits. A lecture-laboratory course covering circuit theory, qualitative theory of active devices and their applications to instrumentation. Laboratory work will be done with basic test instruments. Primarily for students in the allied health fields. COREQ: PHYS 3321. S

PHYS 3301 Modern Physics 3 credits. A one-semester course surveying 20th century physics including elements of special relativity and quantum mechanics as applied to atoms. A continuation of the Engineering Physics sequence. PREREQ: PHYS 2212; COREQ: MATH 3360. F

PHYS 3312 Introduction to Biophysics 4 credits. Survey course designed for pre-medical, pharmacy, biology, and physical science students covering topics such as the physics of sensory systems, electromagnetic radiations, and physical measurement techniques applied to biological problems. PREREQ: CHEM 1112, CHEM 1112L, MATH 1160 or MATH 1170. D

PHYS 3313 Intermediate Laboratory I 2 credits. Modern and historical experiments in atomic physics, nuclear physics, and optics. COREQ: PHYS 3301 and MATH 3360. F

PHYS 3321 Radiologic Physics 2 credits. Basic physics of x-ray production and the interaction of x-rays with matter. Includes topics in medical imaging. Available to juniors in Radiographic Science. PREREQ: PHYS 1100. S

PHYS 3325 Introduction to Weather and Climate 3 credits. Introduces the principles

Physics Courses

PHYS 1100 Essentials of Physics 4 credits. A survey of basic physics principles; motion, gravitation, electricity and magnetism, light, atoms and nuclei. Includes lecture, demonstrations and elementary problem solving. COREQ: MATH 1108 or equivalent. F, S

PHYS 1101 Elements of Physics 3 credits. A survey of basic physics principles; motion, gravitation, electricity and magnetism, light, atoms and nuclei. Includes lecture, demonstrations, elementary problem solving. With PHYS 1101L, satisfies Goal 5 of the General Education Requirements. PREREQ: permission of the College of Technology. COREQ: MATH 1108 or equivalent; PHYS 1101L. F, S

PHYS 1101L Elements of Physics Laboratory 1 credit. Laboratory-based application of PHYS 1101, to demonstrate basic physics principles; motion, gravitation, electricity and magnetism, light, atoms and nuclei. With PHYS 1101, Satisfies Goal 5 of the General Education Requirements. PREREQ: permission of the College of Technology. COREQ: MATH 1108 or equivalent; PHYS 1101. F, S

PHYS 1103 Tools for Scientists I 1 credit. Personal computer, Internet and WWW, and HP graphics calculator applications in the sciences. Familiarizes students with the capabilities of these computing tools. Emphasizes problems frequently encountered in science and engineering courses. D

PHYS 1111 General Physics I 3 credits. Introductory physics course for students in scientific and technical fields, particularly the biological sciences; mechanics, wave motion, thermodynamics. PREREQ: MATH 1143 or MATH 1147 or equivalent. F

PHYS 1112 General Physics II 3 credits. Introduction to optics, electricity and magnetism and selected topics from atomic and nuclear physics. PREREQ: PHYS 1111 or equivalent, and MATH 1143 or MATH 1147 or equivalent. S

PHYS 1113 General Physics I Laboratory 1 credit. Demonstrating principles of physics. COREQ: PHYS 1111. F, S

PHYS 1114 General Physics II Laboratory 1 credit. Demonstrating principles of physics. PREREQ: PHYS 1113. COREQ: PHYS 1112. F, S

PHYS 1152 Descriptive Astronomy 3 credits. Survey of the historical and modern observation of the sky. Physical relationships in the solar system; planets, satellites, comets, etc., and theories of the creation of the universe and life in the universe. With PHYS 1153, satisfies Goal 5 of the General Education Requirements. F, S, Su

Associate of Science in Physics (Health Physics Emphasis)

The objective of the Idaho State University program that awards an Associate of Science in Physics with Emphasis in Health Physics is to develop an individual to assume the role of a health physics technician (sometimes referred to as Radiological Control Technician or RCT) with the knowledge in radiological and biological sciences appropriate for this career option. That same knowledge serves as the basis for certification by the National Registry of Radiation Protection Technologist (NRRPT). Students completing this program will develop the fundamental skills important to life-long learning and advancing within the discipline of Health Physics.

Curriculum

Summer before 1st Year

PHYS 2217	RCT Internship I (Optional)	3 cr
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Fall 1st Year

BIOL 1101, 1101L	Biology I, and Lab	4 cr
ENGL 1101	English Composition	3 cr
MATH 1147	Precalculus	5 cr
	OR	
MATH 1143	College Algebra	3 cr
	AND	
MATH 1144	Trigonometry	2 cr
PHYS 2218	Fundamentals of Radiation Protection Physics	3 cr
PSYC 1101	Introduction to General Psychology	3 cr

Spring 1st Year

COMM 1101	Principles of Speech	3 cr
ECON 1100	Economic Issues	3 cr
ENGL 1102	Critical Reading and Writing	3 cr
MATH 1153	Introduction to Statistics	3 cr
PHYS 2226	Radiation Protection I	3 cr
PHYS 3300	Medical Electronics	2 cr
GOAL 9 or 10A		3 cr

Summer following 1st Year

PHYS 2219	RCT Internship II	3 cr
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Fall 2nd Year

CHEM 1111, 1111L	General Chemistry I, and Lab	5 cr
PHYS 1111	General Physics I	3 cr
PHYS 1113	General Physics I Laboratory	1 cr

that govern weather and climate, including movements of air masses, genesis of storms, creation of frontal systems. Provides insight into forecasting techniques and the effects of weather and climate on people and societies. PREREQ: CHEM 1112, CHEM 1112L, PHYS 1112 or permission of instructor. F, W

PHYS 4400 Practicum in Physical Science 2 credits. Emphasizes design, set-up, equipment, operation, and administration of physics teaching laboratories, demonstrations and activities. Introduces pre-designed experiments plus the design and maintenance of lab equipment. Ideal for Education majors. PREREQ: permission of instructor. S

PHYS 4403 Advanced Modern Physics I 3 credits. Study of the elementary principles of quantum mechanics and an introduction to atomic, solid state and nuclear physics. Quantum mechanics will be used as much as possible. PREREQ: MATH 3360 or equivalent, and PHYS 3301. S

PHYS 4404 Advanced Modern Physics II 3 credits. Study of the elementary principles of quantum mechanics and an introduction to atomic, solid state and nuclear physics. Quantum mechanics will be used as much as possible. PREREQ: PHYS 4403. F

PHYS 4405 Advanced Physics Laboratory 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 4406 Advanced Physics Laboratory II 2 credits. Senior projects providing a capstone to the physics major curriculum. Written and oral presentation of the project procedures and results are required. F, S

PHYS 4409 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 4410 Science in American Society 2 credits. Observational basis of science; technology's historical influences on scientific developments; perceptions of science in contemporary America; tools/strategies for teaching science. Cross-listed as GEOL 4410. PREREQ: Junior standing and permission of instructor. AF

PHYS 4415 Statistical Physics 3 credits. Topics covered may include kinetic theory, elementary statistical mechanics, random motion and the theory of noise. Choice of topics will depend upon the interest of the students and instructor. PREREQ: PHYS 2212 and MATH 3360. AF

PHYS 4416 Radiation Detection and Measurement 3 credits. Lecture/laboratory course emphasizing practical measurement techniques in nuclear physics. PREREQ: CHEM 1112, CHEM 1112L, and PHYS 1111 and PHYS 1113 or PHYS 2211 and PHYS 2213. S

PHYS 4421 Electricity and Magnetism I 3 credits. Intermediate course in fundamental principles of electrical and magnetic theory.

Free use will be made of vector analysis and differential equations. PREREQ: PHYS 2212 and MATH 3360. F

PHYS 4422 Electricity and Magnetism 3 credits each. Intermediate course in fundamental principles of electrical and magnetic theory. Free use will be made of vector analysis and differential equations. PREREQ: PHYS 4421. S

PHYS 4430 Accelerator Physics 3 credits. The physics of direct voltage accelerators, betatrons, synchrotrons, linear induction acceleration; high current accelerators; electromagnetic particle optics, free electron lasers, and synchrotron light sources. PREREQ: PHYS 4422 or permission of instructor. D

PHYS 4442 Solid State Physics 3 credits. Introduction to the field of solid state physics emphasizing the fundamental concepts. Topics usually covered are crystal structure, x-ray diffraction, crystal binding energies, free electron theory of solids, energy bands. PREREQ: PHYS 3301 and MATH 3360 or permission of instructor. AF

PHYS 4452 Intermediate Optics 3 credits. Wave theory, e/m waves, production of light, measurement of light, reflection, refraction, interference, diffraction, polarization, optical systems, matrix methods, Jones vectors, Fourier optics, propagation of e/m waves in materials, atmospheric optics. PREREQ: PHYS 2212; COREQ: MATH 3360. AS

PHYS 4453 Topics in Astrophysics 2 credits. Applications of upper division physics to astronomy or cosmology. May include lab exercises. PREREQ: Permission of instructor. AS

PHYS 4461 Introduction to Mathematical Physics I 3 credits. Introduction to the mathematics most commonly used in physics with applications to and practice in solving physical problems; includes vector analysis, ordinary and partial differential equations. PREREQ: PHYS 2212 and MATH 3360. F

PHYS 4462 Introduction to Mathematical Physics II 3 credits. Introduction to the mathematics most commonly used in physics with applications to and practice in solving physical problems; includes vector analysis, ordinary and partial differential equations. PREREQ: PHYS 4461. S

PHYS 4481 Independent Problems 1-3 credits. Students are assigned to, or request assignment to, independent problems on the basis of interest. May be repeated for up to 6 credits. F, S

PHYS 4483 Theoretical Mechanics 4 credits. Detailed study of the motion of particles, satellites, rigid bodies and oscillating systems. Develop and apply Lagrangian and Hamiltonian methods. PREREQ: PHYS 2212 AND MATH 3360. F

PHYS 4492 Colloquium in Physics 1 credit. Faculty and student lectures in current research topics in physics. Open to upper division and graduate students in physics. May be repeated for up to 4 credits. F, S

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

Health Physics Courses

PHYS 2217 RCT Internship I 3 credits. Structured Internship. An optional experience taken as a class the summer prior to the start of the program. PREREQ: Acceptance into the program and permission of the program director. Su

PHYS 2218 Fundamentals of Radiation Protection Physics 3 credits. Atomic structure, nuclear structure, fission and fusion, radioactive decay, types of radiation, decay schemes, decay kinetics, interaction of radiation with matter, inverse square, attenuation, shielding, sources of radiation, reactors; accelerators, X-ray machines, units and terminology. F

PHYS 2219 RCT Internship II 3 credits. Structured Internship. A required class taken the summer between the first and second years of the program. PREREQ: Acceptance into the program and permission of the program director. Su

PHYS 2225 Radiation Protection Instrumentation 3 credits. Gas-filled detectors: theory of operation, field applications, calibration and maintenance. Standard laboratory radiation detection instrumentation including solid state detectors, liquid scintillation detectors, scintillators, TLD and film dosimetry, and spectroscopy techniques. PREREQ: PHYS 2218. F

PHYS 2226 Radiation Protection I 3 credits. Principles of radiation protection; evaluating internal and external exposures and controls, survey, sampling and inspections, analytical techniques and emergency preparedness. PREREQ: PHYS 2218. S

PHYS 2227 Radiation Protection II 3 credits. Personnel dosimetry, prescribed dosimetry and radiation equipment, radiation protection dosimetry, procedures and programs (ALARA), industrial ventilation, PPE, contamination control, shielding, hazard evaluation primer on internal dosimetry and bioassay techniques. PREREQ: PHYS 2218. S

PHYS 2228 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 2218. S

PHYS 4411 Accelerator Health Physics 3 credits. Fundamentals of particle accelerator design and operation. Examination of the potential radiation environment associated with accelerators and health and safety issues of their operation. PREREQ: Senior standing in health physics or permission of instructor. D

PHYS 4412 Environmental Health Physics 3 credits. State-of-the-art applied mathematical techniques for estimating the release, transport, and fate of contaminants in multi-media environmental pathways (air, ground water, terrestrial). Both radiological and non-radiological contaminants will be addressed, with emphasis on radiological contaminants. PREREQ: Permission of instructor. Se

PHYS 4413 Fundamentals of Industrial Hygiene 3 credits. Overview on the recognition, evaluation, and control of hazards arising from

physical agents in the occupational environment. The exposure consequences associated with agents of major occupational health concerns are considered. PREREQ: Permission of instructor. Se

PHYS 4416 Radiation Detection and Measurement 3 credits. Lecture/laboratory course emphasizing practical measurement techniques in nuclear physics. PREREQ: CHEM 1112, and PHYS 1111 and PHYS 1113 or PHYS 2211 and PHYS 2213. S

PHYS 4417 Industrial Ventilation and Aerosol Physics 3 credits. This course focuses on two distinct subject areas: an elaboration on the details of the ACGIH method of local exhaust-system design, and a study of applied aerosol physics based upon trajectory analysis. PREREQ: Permission of instructor. Se

PHYS 4418 Nonionizing Radiation Protection 3 credits. Occupational safety and health issues of human exposure to non-ionizing radiation. Topics include health concerns and safety strategies developed for extremely low frequency, microwave, radio-frequency, ultraviolet, infrared, laser radiation, and soundwaves. PREREQ: Permission of instructor. Se

PHYS 4419 Radiological Emergency Planning 3 credits. Radiological emergency planning for facilities ranging from reactors and other major nuclear facilities to transportation accidents and smaller-scale nuclear accidents. Topics include planning, co-ordination, "exercises", exposure pathways, modeling, measurement, control, decontamination, and recovery. PREREQ: Permission of instructor. Se

PHYS 4420 Reactor Health Physics 3 credits. Introduction to reactor physics; nuances peculiar to reactor health physics; reactor designs. Critiques of exposure pathways, accidents, decommissioning, contamination control, and emergency planning examine radiation safety approaches within the nuclear fuel cycle. PREREQ: Permission of instructor. Se

PHYS 4431 Radiation Physics I 3 credits. Atomic and nuclear structure, series and differential-equation descriptions of radioactive decay, physical theory of the interaction of radiation with matter suitable for the discipline of Health Physics. PREREQ: Permission of instructor. F

PHYS 4432 Radiation Physics II 3 credits. Continuation of PHYS 4431 considering dosimetric quantities/units, theory and technology of radiation detection and measurement, and radiobiology important to an advanced understanding of radiation protection. PREREQ: PHYS 4431 and permission of instructor. S

PHYS 4433 External Dosimetry 3 credits. Lecture course emphasizing external radiation protection including study of point kernel techniques, monte carlo modeling, and NCRP-49 methods. Also discussed are external dosimetry measurement techniques. PREREQ: PHYS 4432 or permission of instructor. F

PHYS 4434 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 4433 or permission of instructor. S

PHYS 4455 Topics in Health Physics I 2 credits. A lecture/seminar course covering special topics in Health Physics such as state and federal regulations, waste disposal methodology, and emergency procedures. PREREQ: PHYS 4432 or permission of instructor. F

PHYS 4456 Topics in Health Physics II 2 credits. A continuation of PHYS 4455. A lecture/seminar course covering special topics in Health Physics such as state and federal regulations, waste disposal methodology, and emergency procedures. PREREQ: PHYS 4432 or permission of instructor. S

PHYS 4480 Health Physics Capstone Course 3 credits. Senior project involving development of an abstract, report, poster and oral presentation with synthesis of the many aspects of the undergraduate Health Physics education into a unified focused end point. PREREQ: Permission of instructor. F, S

PHYS 4488 Advanced Radiobiology 3 credits. An advanced-level class covering aspects of molecular radiobiology, teratogenesis, oncogenesis, and acute radiation illnesses. It also considers nonstochastic radiation effects and the epidemiology of radiation exposures. Cross-listed as BIOL 4488. PREREQ: Permission of instructor. AF

PHYS 4490 ABHP Review 3 credits. A course for practicing professionals aimed at the development and improvement of skills. May not be applied to undergraduate or graduate degrees. May be repeated. May be graded S/U. S

Department of Political Science

Chair and Professor: Gabardi

Professors: Adler, Anderson, McBeth

Associate Professor: Lybecker

Assistant Professors: Carlisle, Forbis,

Newman

Adjunct Faculty: Chambers, Phippen

Emeriti: Burns, Foster, Hjelm, Maughan,

Nilson

The study of governments and human beings as decision makers is at once an ancient discipline and one of the most recently developed social sciences. Political inquiry reaches back to the recorded beginnings of human society, for individuals have always been curious about the nature of governments, the bases of authority and personality of leaders, the obligations of followers, and consequences of public policies. Although interest persists in these matters, inquiry has broadened to include scientific observations about politics which utilize relatively new techniques of analysis

that are common to many of the social sciences. The newer emphasis is upon systematic procedures of investigation, rigorous standards of proof, comparative analysis and interdisciplinary studies.

Both of these approaches—the traditional and the behavioral—are offered in the undergraduate and graduate levels of study. The curriculum provides background in the theory and practice of politics and techniques of methodological inquiry for the student with general interests. It offers training of a general and specific nature that is useful for persons planning to seek careers in education, the legal profession, state and local government, urban and regional planning, the federal bureaucracy and journalism, or in any of the proliferating quasi-public organizations which seek to monitor the political processes or to influence the content of public policy.

The Department of Political Science offers programs leading to Associate of Science, Bachelor of Arts, Bachelor of Science, Master of Arts, Master of Public Administration, and Doctor of Arts degrees. Within the framework of the Bachelor of Arts and Bachelor of Science programs, students may pursue a major in political science or they may choose an emphasis in pre-law. There is no required or specified curriculum which students who emphasize pre-law are expected to follow. An advisory committee has been created to assist such students in developing a curriculum that reflects their individual needs.

Outcome objectives are related to both student and program development. Student related outcome objectives are listed below:

1. To gain a well-rounded knowledge of the basic fields of the discipline.
2. To develop an understanding of how political scientists think, gather evidence, process data, and reach tentative conclusions.
3. To think critically about political phenomena and thought.
4. To develop effective oral and written communication skills.
5. To engage in problem solving.
6. To be exposed to a rich variety of perspectives and ideas.
7. To prepare for a career or profession after graduation that is related to the political science major. This includes graduate school.

Admission Requirements

1. Completion of a minimum of 24 credit hours with at least a 2.25 GPA.
2. Satisfactory completion of general education Goals 1 (English Composition), 2 (Principles of Speech), and 3 (Mathematics).
3. Completion of both POLS 1101 Introduction to American Government and POLS 2202 Introduction to Politics (or their equivalents) with at least a C grade in each.
4. Assigned 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 1101	Introduction to American Government	3 cr
POLS 2202	Introduction to Politics	3 cr
POLS 2221	Introduction to International Relations	3 cr
POLS 3313	Introduction to Political Philosophy	3 cr
POLS 3331	Comparative Politics: Framework for Analysis	3 cr
POLS 4401	Political Parties and Interest Groups	3 cr
	OR	
POLS 4427	Voting and Public Opinion	3 cr
POLS 4403	The Presidency	3 cr
	OR	
POLS 4404	Legislative Process	3 cr
POLS 4442	Constitutional Law	3 cr
	OR	
POLS 4443	Constitutional Law	3 cr
POLS 4460	Senior Seminar	3 cr

In addition to the 27 credits from the core curriculum, majors are required to earn a minimum of 12 elective credits selected from any of the courses in the political science curriculum (excluding POLS 4459).

Emphasis in Pre-law

Students who desire to complete this emphasis should consult with a pre-law advisor in the Department of Political Science.

Minor in Political Science

Students seeking a minor in political science must complete the following: POLS 1101, 2202, six credits of core curriculum courses (excluding POLS 4460) and six elective political science credits (excluding POLS 4459).

Associate of Science in Political Science

Students seeking an Associate of Science degree in Political Science must complete the following:

General Education Goals for Bachelor of Science		variable
POLS 1101	Introduction to American Government	3 cr
POLS 2202	Introduction to Politics	3 cr
POLS 2221	Introduction to International Relations	3 cr
POLS 2248	Politics and the Administration of Justice	3 cr
	OR	
POLS 2249	Introduction to Criminal Law	3 cr
	Three additional courses in Political Science	9 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.*

Political Science Courses

Topics into which courses are grouped:

American Indian Studies
American Politics
Comparative Government
General Courses
International Politics
Introductory Courses
Political Analysis
Political Theory
Public Administration
Public Law

Courses in numerical order, showing title and the topic group where course description appears:

POLS 1101 Introduction to American Government: Introductory Courses
POLS 2202 Introduction to Politics: Introductory Courses
POLS 2221 Introduction to International Relations: International Politics
POLS 2248 Politics and the Administration of Justice: Public Law
POLS 2249 Introduction to Criminal Law: Public Law
POLS 2250 Idaho Politics: American Politics
POLS 3308 State and Local Government: American Politics

POLS 3313 Introduction to Political Philosophy: Political Theory
POLS 3326 Recent American Foreign Policy: International Politics
POLS 3331 Comparative Politics: Framework for Analysis - Comparative Government
POLS 3350 Special Topics in Political Science: General Courses
POLS 3397 Workshop: General Courses
POLS 4401 Political Parties and Interest Groups: American Politics
POLS 4403 The Presidency: American Politics
POLS 4404 The Legislative Process: American Politics
POLS 4405 The Administrative Process: American Politics
POLS 4406 Intergovernmental Relations: American Politics
POLS 4408 Metropolitan and Urban Studies: American Politics
POLS 4409 Community and Regional Planning: American Politics
POLS 4411 American Political Theory: Political Theory
POLS 4412 Modern Political Analysis: Political Analysis
POLS 4418 Topics in Political Theory: Political Theory
POLS 4419 Political Research Methods: Political Analysis
POLS 4419L Political Research Methods Laboratory: Political Analysis
POLS 4420 Contemporary Political Theory: Political Theory
POLS 4421 Democratic Political Thoughts: Political Theory
POLS 4425 Topics in International Politics: International Politics
POLS 4427 Voting and Public Opinion: American Politics
POLS 4432 Comparative Politics - Change and Political Order: Comparative Government
POLS 4433 Politics of Developing Nations: Comparative Government
POLS 4434 Terrorism and Political Violence: International Politics
POLS 4435 Topics in National and Regional Studies: Comparative Government
POLS 4441 Administrative Law: Public Administration
POLS 4442 Constitutional Law: Public Law
POLS 4443 Constitutional Law: Public Law
POLS 4445 Jurisprudence: Public Law
POLS 4450 Special Topics in Law: Public Law
POLS 4451 Organizational Theory and Bureaucratic Structure: Public Administration
POLS 4452 Financial Administration and Budgeting: Public Administration
POLS 4453 Public Policy Analysis: American Politics
POLS 4454 Public Personnel Administration: Public Administration
POLS 4455 Environmental Politics and Policy: American Politics
POLS 4456 Labor Organization: Public Administration
POLS 4457 Grantwriting: Public Administration
POLS 4458 Public Administration Ethics: Public Administration
POLS 4459 Government Internship: General Courses
POLS 4460 Senior Seminar: General Courses
POLS 4465 U.S. Political History: American Politics
POLS 4466 Public Lands Policy: American Politics
POLS 4467 State and Local Administration: Public Administration
POLS 4471 Historical Geography of Idaho: General Courses

POLS 4478 Federal Indian Law: American Indian Studies
 POLS 4479 Tribal Governments: American Indian Studies
 POLS 4491 Seminar: General Courses
 POLS 4492 Seminar: General Courses

Introductory Courses

POLS 1101 Introduction to American Government 3 credits. Constitutional basis, structure, and administrative organization of the national government. Satisfies Goal 11 of the General Education Requirements. F, S, Su

POLS 2202 Introduction to Politics 3 credits. This class is an introduction to the fundamental issues in political science. Examples of topics covered include equality, majority rule, and the fact-value distinction. Required for all students majoring in political science. F, S, Su

American Indian Studies

POLS 4478 Federal Indian Law 3 credits. Examination of tribal governments; their relationship with the federal government; sovereignty, jurisdictional conflicts over land and resources; and economic development. Cross-listed as ANTH 4478. D

POLS 4479 Tribal Governments 3 credits. Complex legal position of Indian tribes as self-governing entities; principles of inherent powers; governmental organization, lawmaking, justice, relation to state and federal government. Cross-listed as ANTH 4479. D

American Politics

POLS 2250 Idaho Politics 3 credits. Historical development and political analysis of Idaho politics from the first settlers to the present. D

POLS 3308 State and Local Government 3 credits. Study of the institutions of state and local government in a behavioral context. D

POLS 4401 Political Parties and Interest Groups 3 credits. The nature and development of political parties and pressure groups as exemplified in the United States. S, Su

POLS 4403 The Presidency 3 credits. Evolution and development of the office of the President; its major responsibilities in domestic and foreign affairs, with emphasis on particular power problems that confront the President. F, Su

POLS 4404 The Legislative Process 3 credits. Nature and functions of the U.S. Congress. Topics covered: legislative campaigns, the politics of lawmaking, congressional investigations, and major problems facing the Congress. S, Su

POLS 4405 The Administrative Process 3 credits. Analysis of the principles of public administration with an introduction to theories of organization and administration. D

POLS 4406 Intergovernmental Relations 3 credits. Analysis of patterns of intergovernmental relations including changing patterns of program and fiscal responsibility in the federal system. The emerging role of new federal structures, state and substate regional

organizations will be reviewed in the context of “new” federalism and its implications for intergovernmental relationships. D

POLS 4408 Metropolitan and Urban Studies 3 credits. Analysis of metropolitan and smaller urban systems with emphasis on relationships among general groups, political organizations and institutions. Federal, state and interlocal programs will serve as a focus for analyzing particular problems of metropolitan and urban systems in the 20th century. D

POLS 4409 Community and Regional Planning 3 credits. Steps involved in planning will be analyzed in the context of community and regional decision-making processes. Two perspectives will be stressed—that of the decision-maker, the social structure within which the decision-maker operates and strategies for implementing decision; and that of the citizen or group interest which lies outside the power structure of the community. Each perspective will be used as a framework for analyzing power configurations, techniques of identifying patterns of decision making, and various forms of citizen participation. D

POLS 4427 Voting and Public Opinion 3 credits. Analysis of the way citizens and government communicate with each other. Elections, public opinion, and media influence are studied. F

POLS 4453 Public Policy Analysis 3 credits. Theoretical and practical analyses of public policies, including theories of policy formation and their political implementation through governmental institutions. Case studies will provide the means of analyzing specific policy problems. D

POLS 4455 Environmental Politics and Policy 3 credits. Study of the political forces affecting environmental policy and investigation of several specific policies affecting the environment, such as: pollution control, energy production, hazardous chemicals, and the public lands. D

POLS 4465 U.S. 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 4465. D

POLS 4466 Public Lands Policy 3 credits. Analysis of the historical and contemporary use and disposition of the federal public lands. The agencies that manage the public lands, major laws, and regulations and the political conflict that surrounds their use and conservation. D

Political Analysis

POLS 4412 Modern Political Analysis 3 credits. Methods of political inquiry and theories and doctrines of politics, with emphasis on modern developments. D

POLS 4419 Political Research Methods 3 credits. This class investigates the theory and application of various research methods and statistical techniques common to the social sciences, with particular reference to their use in political inquiry. COREQ: POLS 4419L. D

POLS 4419L Political Research Methods Laboratory 1 credit. Application of and practice in research methods. COREQ: POLS 4419. D

Public Administration

POLS 4441 Administrative Law 3 credits. Introductory survey of the legal principles defining governmental administrative processes. Topics include judicial review, tort liability of governments and offices, rules and rule-making, due process, and the limits of administrative discretion. D

POLS 4451 Organizational Theory and Bureaucratic Structure 3 credits. Introduction to the study of complex organizations and organizational behavior in the administration of public policy. Emphasis on public institutions. POLS 4405 recommended. D

POLS 4452 Financial Administration and Budgeting 3 credits. Emphasis on different approaches to financial administration, ranging from incremental and short-term planning to more recent and comprehensive emphases on management by objectives and zero-based budgeting. The development of the Office of Management and Budget and its relationship with the President, Congress and the Federal Bureaucracy will be considered as well as political, organizational and behavioral constraints on budgetary decision-making. D

POLS 4454 Public Personnel Administration 3 credits. Operations and processes of personnel management in public institutions. Major topics include personnel processes, public employee rights and duties, employee motivation and morale, the political environment of public personnel administration, and the impact of professionalism, technology, and participatory democracy on public personnel practices. D

POLS 4456 Labor Organization 3 credits. Evolution of economic systems and labor’s response to changing patterns of production is studied, and a counter perspective to traditional management views of “efficiency” is presented. Emphasis is on governmental employee unions. D

POLS 4457 Grantwriting 3 credits. Steps involved in the grantwriting process from strategic planning, research, and writing to finding appropriate grant sources. D

POLS 4458 Public Administration Ethics 3 credits. A course in applied ethics serving to educate students from a theoretical and a practical point of view. The course provides an historical and social perspective of ethics in public administration. D

POLS 4467 State and Local Administration 3 credits. Seminar in the practice and principles of state, municipal, and sub-state management. Emphasis on the evolution of interaction between different branches of sub-national government. S

Political Theory

POLS 3313 Introduction to Political Philosophy 3 credits. Examination of selected writings in political philosophy from the classical, Christian and early modern eras. F, S

POLS 4411 American Political Theory 3 credits. Political ideas in the United States from Colonial and Revolutionary times through the controversies of the Civil War to the present. D

POLS 4418 Topics in Political Theory 3 credits. This course requires examination, analysis

and investigation of selected texts and topics in political philosophy. May be repeated for up to 6 credits. D

POLS 4420 Contemporary Political Theory 3 credits. Recent 20th century political philosophies and theories ranging from democratic, Marxist, and existentialist thought to Critical Theory and postmodernism. D

POLS 4421 Democratic Political Thoughts 3 credits. Historical and contemporary models of democracy as well as contemporary debates in democratic thought. Democracy is treated as a contested idea. D

International Politics

POLS 2221 Introduction to International Relations 3 credits. Conceptual introduction to international relations, with emphasis on sovereignty, national interest, power, and balance of power. F, S

POLS 3326 Recent American Foreign Policy 3 credits. Study of recent American foreign policy focused on the interrelationship of domestic and foreign policies and the problems of formulating foreign policy in a democratic state. D

POLS 4425 Topics in International Politics 3 credits. This course requires examination, analysis and evaluation of selected topics in international politics. May be repeated for up to 6 credits. D

POLS 4434 Terrorism and Political Violence 3 credits. A survey of forms of domestic and transnational terrorism, other forms of political violence, and problems of counter-terrorism. D

Comparative Government

POLS 3331 Comparative Politics: Framework for Analysis 3 credits. Introduction to various theoretical approaches to comparative analyses of different cultures and nations, and to other courses in this area of emphasis. F, S, Su

POLS 4432 Comparative Politics: Change and Political Order 3 credits. An examination of political change, political order, political culture and the role of revolutionary violence. Change and order in the context of globalization is emphasized. D

POLS 4433 Politics of Developing Nations 3 credits. Study of problems in the political analysis of rapidly changing and unstable "developing" nation states with an emphasis on problems of the political, economic, and social development of selected states. D

POLS 4435 Topics in National/Regional Studies 3 credits. Surveys the political, economic, and social issues of a nation or region. May be repeated for up to 6 credits with different content. D

Public Law

POLS 2248 Politics and the Administration of Justice 3 credits. The criminal justice system in the United States will be examined by investigating its component parts: police, court, and correction. In addition, the problem of coordination among these agencies will be explored as will the relationship of the criminal justice network to the larger society. D

POLS 2249 Introduction to Criminal Law 3 credits. The major categories of criminal liability are studied within the context of American criminal justice. These include crimes against individuals, property, and society. Defenses available to those accused of criminal activity are also discussed. D

POLS 4442 Constitutional Law 3 credits. Analysis of opinions of the United States Supreme Court concerning the distribution of authority between the national government and the states and the relationship among the branches of the national government. F

POLS 4443 Constitutional Law 3 credits. Analysis of opinions of the United States Supreme Court with a special emphasis on criminal cases and civil liberties. S

POLS 4445 Jurisprudence 3 credits. Nature, source, and theories of law; the role of law in modern society; and the application of legal philosophy to the political system. D

POLS 4450 Special Topics in Law 3 credits. Examine and analyze selected topics in constitutional law and legal philosophy. Topics may include the constitution and foreign affairs, women and the law, law and literature, and law and film. May be repeated for up to 6 credits. D

General Courses

POLS 3350 Special Topics in Political Science 3 credits. Examine and analyze selected topics in politics. May be repeated for up to 6 credits. D

POLS 4459 Government Internship 1-9 credits. Directed student internship in political science and organizations or associations related to public policy and the selection of public officials involving supervised work experience in research, staff management practices, or making and implementing public policies. The student will be placed in a supervised position commensurate with his/her abilities as determined and approved by faculty in the department. May be repeated for up to 9 credits. Graded S/U. F, S, Su

POLS 4460 Senior Seminar 3 credits. This seminar is designed to integrate undergraduate academic experience in the major. Students will be required to do research and writing on topics encountered in their undergraduate curriculum. Required of, and open to, senior majors. F, S

POLS 4471 Historical Geography of Idaho 3 credits. Influences of geography and geology on Idaho's economic, political and cultural history. May be team taught and include field trips, discussion sections. Cross-listed as GEOL 4471 and HIST 4471. D

POLS 4491 Seminar 1-3 credits. Research, reading, discussion, and the preparation of reports on selected topics. Ordinarily for seniors majoring in political science and having the instructor's consent. May be repeated for up to 6 credits. F, S, Su

POLS 4492 Seminar 1-3 credits. Research, reading, discussion, and the preparation of reports on selected topics. Ordinarily for seniors majoring in political science and having the instructor's consent. May be repeated for up to 6 credits. F, S, Su

Department of Psychology

Interim Chair and Associate Professor:
Lynch

Professors: Cellucci, Hatzenbuehler,
Roberts, Turley-Ames, Vik

Senior Research Professor: Robison
Associate Professors: Lawyer, Rasmussen,
Wong

Assistant Professors: Brumley, Letzring,
McCulloch

Adjunct Faculty: Amaya, Atkins, Landers,
Larsen, Heyneman, Pongratz,
Simonson, Sommer, Stephens,
Traughber, Welsh

Emeriti: Enloe, Joe, Matthews, McGee

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 1101 and PSYC 2201 (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 1101	Introduction to General Psychology	3 cr
PSYC 2201	Careers in Psychology	1 cr
PSYC 2227	Basic Statistics	3 cr
PSYC 2228	Introduction to the Theory of Measurements and Test Construction	3 cr
PSYC 3303	Experimental Psychology	4 cr
PSYC 4431	Physiological Psychology I	3 cr
PSYC 4472	History of Psychology	3 cr
PSYC 4491	Senior Seminar	3 cr

One of the following courses:

PSYC 4435	Animal Behavior	3 cr
	OR	
PSYC 4445	Psychology of Learning	3 cr

One of the following courses:

PSYC 3341	Social Psychology	3 cr
	OR	
PSYC 4401	Theories of Personality	3 cr

One of the following courses:

PSYC 4404	Sensation and Perception	4 cr
	OR	
PSYC 4446	Cognitive Processes	3 cr
	TOTAL:	32 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 4404	Sensation and Perception	4 cr
PSYC 4432	Physiological Psychology II	3 cr
PSYC 4446	Cognitive Processes	3 cr

Minor in Psychology

PSYC 1101	Introduction to General Psychology	3 cr
PSYC 2227	Basic Statistics	3 cr
PSYC 2228	Introduction to the Theory of Measurements and Test Construction	3 cr
PSYC 3303	Experimental Psychology	4 cr
	OR	
PSYC 3310	Applied Techniques	4 cr
	TOTAL:	13 cr

In addition, the student must take 9 additional elective credits in psychology.

Psychology Courses

PSYC 1101 satisfies Goal 12 of the General Education Requirements. **PSYC 1101 or permission of the instructor is a prerequisite of all upper-division courses in psychology.**

PSYC 1101 Introduction to General Psychology 3 credits. Brief history of the science of psychology and study of human behavior and mental processes. Discusses biological, cognitive, and social bases of behavior. Satisfies Goal 12 of the General Education Requirements. F, S

PSYC 2200 Child Abuse 3 credits. Investigation into the psychological and social factors which contribute to child abuse and neglect, and to their identification, treatment, and prevention. D

PSYC 2201 Careers in Psychology 1 credit. Provides psychology majors with the information and skills necessary to be successful and to pursue a career in psychology or a related field. F, S

PSYC 2205 Human Sexuality 3 credits. The psychological, biological, and sociological aspects of human sexuality. Emphasis on gender identity, the human reproductive system, human sexual expressions, and sexual problems in males and females. D

PSYC 2211 Personality and Adjustment 3 credits. The lifelong development of personality and the search for self-realization will be emphasized. Opportunities and crises common at various periods will be discussed. PREREQ: PSYC 1101. D

PSYC 2225 Child Development 3 credits. Study of development from conception through adolescence. Considers typical changes within the biological, cognitive, and socioemotional domains and the influence of contexts (e.g., family, peers, school, culture) within each area. F, S

PSYC 2227 Basic Statistics 3 credits. Consideration of statistical techniques and methods used in psychological investigations in terms of derivation, application, and limitation. PREREQ: MATH 1153 or permission of instructor. F, S

PSYC 2228 Introduction to the Theory of Measurement and Test Construction 3 credits. Brief history and survey of the development of psychological test instruments and an introduction to the theory and mechanisms of test construction. PREREQ: PSYC 2227. F, S

PSYC 2250 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 3301 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 1101. F, S

PSYC 3302 Abnormal Psychology II 3 credits. Alcoholism and drug dependence, psychosomatic disorders, organic brain syndromes, and mental retardation. Contemporary approaches to assessment and treatment of abnormal behavior, including a survey of psychotherapeutic methods. PREREQ: PSYC 3301. D

PSYC 3303 Experimental Psychology 4 credits.

Introduction to the methods of psychological research. Students will be required to perform experiments. PREREQ: PSYC 2227. PREREQ OR COREQ: PSYC 2228. F, S

PSYC 3305 Psychology of Consciousness 3 credits.

This course presents the principle concepts, theories, and research regarding the nature of consciousness and its various states. Topics may include the human sleep-wake cycle, dreaming, time phenomenology, psychotropic drug effects, hypnosis, meditation, biofeedback, and intuition. D

PSYC 3310 Applied Techniques 2 credits.

Acquaints students with techniques in selected areas of applied psychology, such as stress management, animal training, human factors, behavior modification, etc. May be repeated for up to 6 credits. PREREQ: PSYC 1101. D

PSYC 3332 Psychology of Adolescence 3 credits.

Critical review of work related to the physiological, cognitive, and emotional development of the adolescent personality. General concepts relating to specific characteristics of adolescent behavior will be developed. PREREQ: PSYC 2225. D

PSYC 3341 Social Psychology 3 credits.

Study of the impact of social and cultural forces upon the individual and of the interaction between individuals producing social phenomena. PREREQ: PSYC 1101. F

PSYC 3344 Adult Development and Aging 3 credits.

Study of development across adulthood, emphasizing late adulthood to death. Considers biological, social, and cognitive domains of development and contexts of change. PREREQ: PSYC 2225. D

PSYC 3369 AIDS 1 credit.

This survey course provides an overview of AIDS from biomedical, psychological, and sociological perspectives. The intrusive nature of this epidemic into all aspects of our lives is emphasized. No science background is required. Graded S/U. D

PSYC 4401 Theories of Personality 3 credits.

Detailed study of the leading theories of personality with emphasis on the Freudian, Neo-Freudian, humanistic and existential theories. PREREQ: PSYC 1101. S

PSYC 4404 Sensation and Perception 4 credits.

The anatomical and physiological bases of sensation will be reviewed. Moreover, traditional and contemporary theories of perception will be critically considered. Students will be expected to do laboratory work illustrating basic concepts of sensory and perceptual functions. PREREQ: PSYC 4431 or PSYC 4446. AF

PSYC 4408 Science, Pseudoscience, and Psychology 3 credits.

Critical evaluation of fringe-science, paranormal, and other unproven claims. Introduction to the psychological processes underlying pseudo-scientific thinking and beliefs. D

PSYC 4412 Ethical and Professional Issues in Psychology 2 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 4417 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 4417, SOWK 4417, and CSED 4417. S

PSYC 4423 Community Practicum 1-2 credits.

Students work in 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. Graded S/U. PREREQ: Permission of instructor. F, S, Su

PSYC 4425 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. Graded S/U. PREREQ: Permission of instructor. F, S, Su

PSYC 4431 Physiological Psychology I 3 credits.

Introduction to neuropsychology with an emphasis on methods, basic neuroanatomy, and neurophysiology. PREREQ: Six hours of Psychology beyond PSYC 1101 or permission of instructor. F

PSYC 4432 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 4431 or permission of instructor. AS

PSYC 4435 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 1101 or permission of instructor. AS

PSYC 4443 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 obedience research. PREREQ: PSYC 3341 or permission of instructor. D

PSYC 4445 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 1101 and permission of instructor. F

PSYC 4446 Cognitive Processes 3 credits.

A survey of the major and current concepts, theories, and research in cognitive psychology. Areas of

emphasis include attention, memory, information processing, mental imagery, decision-making, and problem solving. PREREQ OR COREQ: PSYC 3303. S

PSYC 4451 Clinical Psychology 3 credits.

Surveys the field of clinical psychology; with emphasis on past and present status, diagnosis, assessment, critical topics related to intervention, the clinical psychologist's professional role, and student training. PREREQ: PSYC 1101. D

PSYC 4453 Theory and Method of Psychosocial Child Therapy 3 credits.

Review of the psychopathology, diagnosis, and treatment of the major psychosocial disorders of childhood. PREREQ: PSYC 2225. D

PSYC 4463 Clinical Psychology and the Law 3 credits.

An introduction to the field of forensic psychology by exposing students to the primary areas in which clinical psychology relates to the legal system. Emphasis will be on expert testimony by clinicians in matters of criminal responsibility, mental competency, civil commitment, and child custody. D

PSYC 4464 Dilemmas of Youth 3 credits.

This course surveys theory and research concerned with dilemmas of identity formation. Personal accounts, literature—classical and psychological—will serve to illustrate dilemmas and explain their resolutions. D

PSYC 4465 Behavioral Medicine 3 credits.

Psychological issues of health, disease states, and prevention. Critical evaluation of clinical research and practice, including nontraditional healing techniques and current models used to understand health and disease. PREREQ: PSYC 1101 or permission of instructor. D

PSYC 4467 Topics in Psychology 1-3 credits.

Selected topics in psychology. Contents vary. May be repeated with different content and departmental approval up to 3 times for a total of 9 credits. PREREQ: Permission of instructor. D

PSYC 4472 History of Psychology 3 credits.

Modern psychology in historical perspective. Genesis and development of fundamental problems and methods, with emphasis on specific fields of research. PREREQ: Fifteen hours in Psychology beyond PSYC 1101 or permission of instructor. F, S

PSYC 4483 Special Problems 1-3 credits.

Research or readings in a special area of interest to be arranged on an individual basis with individual faculty. May be repeated for up to 6 credits. PREREQ: 24 hours in Psychology. D

PSYC 4491 Senior Seminar 3 credits.

Library, field, or experimental research in an area selected by the instructor, including oral and written presentation of results. PREREQ: 90 credits and PSYC 3303. Graded S/U. F, S

PSYC 4497 Workshop 1-2 credits.

Workshops aimed at the development and improvement of skills. Does not satisfy requirements for a major or a minor. May be repeated. Graded S/U. D

Department of Sociology, Social Work and Criminal Justice

College of Arts and Sciences

Chair and Professor: Hunter
Professors: Leavitt, Pierson
Associate Professor: Hooper
Assistant Professors: Crue, Hearn, Jensen-Hart

Affiliate Faculty: Adamcik, Cellucci
Emeriti: Aho, Bryan

The Department of Sociology, Social Work and Criminal Justice offers courses leading to the Associate of Arts degree in criminal justice, the Bachelor of Arts degree in sociology or social work, and the Master of Arts degrees in sociology. For a full description of the M.A. degrees, refer to the Graduate Catalog.

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.

Outcome Objectives

The objectives of the Sociology program are:

1. To gain a well-rounded knowledge of the fields of the discipline.
2. To develop an understanding of how sociologists think, gather information, process data and reach tentative conclusions.
3. To sort out trends in social data.
4. To assist in conflict resolution between groups of people in society.

5. To engage in problem solving based on varying patterns of behavior of diverse groups.
6. To be exposed to a rich variety of perspectives and ideas.
7. To prepare for a career that is related to Sociology.

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 1101	Introduction to Sociology	3 cr
SOC 2206	Sociological Methods	3 cr
SOC 2207	Social Statistics	3 cr
SOC 3301	Classical Social Theory	3 cr
SOC 4403	Contemporary Sociological Theory	3 cr
SOC 4462	Power, Class, and Prestige	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 4482. Fifteen of the elective credit hours must be upper division.

Minor in Sociology

Required Courses

SOC 1101	Introduction to Sociology	3 cr
SOC 2206	Sociological Methods	3 cr
SOC 3301	Classical Social Theory	3 cr
SOC 4462	Power, Class, and Prestige	3 cr
		TOTAL: 12 cr

Elective Courses (9 credits)

With the approval of a Department of Sociology faculty member, the student shall select nine credit hours from any of the electives listed for the sociology major.

Bachelor of Arts in Social Work

The Social Work Program is accredited by the Council on Social Work Education (CSWE) at the Baccalaureate level. The mission of the Social Work Program at Idaho State University is to prepare students to work as professionals in entry-level social work generalist practice. It is the program's vision that graduates will work within the social work profession by 1) contributing to the enhancement of quality of life, 2) empowering individuals, families, groups, and communities, and 3) advancing human

rights and social and economic justice. Consistent with the University mission, the Social Work Program strives to develop students who think critically and are able to provide health related and other professional social work services within agencies and programs to the people of Idaho, the nation, and the world.

The goals of the Social Work Program are:

1. Preparation of students for beginning generalist social work practice with individuals, families, groups, organizations and communities (i.e. micro, mezzo and macro systems).
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 well as advance human rights and social and economic justice.

Upon completion of the Social Work Program, students will have achieved the following competencies per CSWE Educational Policies and Accreditation Standards:

1. Identify as a professional social worker and conduct oneself accordingly.
2. Apply social work ethical principles to guide professional practice.
3. Apply critical thinking to inform and communicate professional judgments.
4. Engage diversity and difference in practice.
5. Advance human rights and social and economic justice.
6. Engage in research-informed practice and practice-informed research.
7. Apply knowledge of human behavior and the social environment.
8. Engage in policy practice to advance social and economic well-being and to deliver effective social work services.
9. Respond to contexts that shape practice.
10. Engage, assess, intervene, and evaluate with individuals, families, groups, organizations, and communities.

A graduate of the program is eligible to apply for licensure as a social worker in 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.

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 1108 (Intermediate Algebra) and MATH 1153 (Introduction to Statistics);

Goal 4: BIOL 1100 (Concepts Biology: Human Concerns);

Goal 11: ECON 1100 (Economic Issues);

Goal 12: PSYC 1101 (Introduction to General Psychology).

Departmental Requirements

SOC 1101	Introduction to Sociology	3 cr
SOC 2207	Social Statistics	3 cr
SOC 2248	Social Diversity	3 cr
PSYC 3301	Abnormal Psychology	3 cr

Social Work Requirements

SOWK 2271	Introduction to Social Work	3 cr
SOWK 2272	Human Behavior and the Social Environment	3 cr
SOWK 3308	Social Work Research	3 cr
SOWK 3371	Social Welfare Policy	3 cr
SOWK 3372	Practice with Individuals and Families	3 cr
SOWK 3373	Group Work	3 cr
SOWK 4476	Social Work Field Practicum I	6 cr
SOWK 4477	Social Work Field Practicum II	6 cr
SOWK 4494	Community Organization and Social Change	3 cr
SOWK 4498	Integration of Social Work Methods	3 cr
Upper Division SOC, SOWK, Criminal Justice, or PSYC courses*		6 cr

Note: Upper division courses are those numbered 3000-4999. Social Work students must attain a C or better in departmental and Social Work requirements.

Social Work Electives Include:

SOWK 4482	Independent Problems	6 cr
SOWK 4485	Grieving	3 cr
SOWK 4486	Family Issues in Social Work	3 cr
SOWK 4491	Seminar*	3 cr

*May be repeated; with different content; up to 9 credits may be used toward graduation.

Admission to the Social Work Program

Application for admission to the Social Work Program is required of all students desiring to progress toward a social work

major. Admission to the Social Work Program is competitive. Students may apply to the major at the completion of the sophomore year and after completing or with current enrollment in required prerequisite goal areas and courses.

The following criteria must be met for an applicant to be eligible for consideration for admission to the social work major:

1. Completion of a minimum of 61 credit hours with a minimum GPA of 2.5 for the semester at the time of application.
2. Completion of or with current enrollment in the following goal areas and departmental requirements: Goals 1, 3, 4, 11, and 12, SOC 2248, SOWK 2271, SOWK 2272, and MATH 1153 with a minimum grade of "C" in each course.
3. Completion of the Application for admission to Social Work Major including a \$30 application fee, a three- to five-page typed statement explaining why you would like to be a social worker and why you might be a good fit for the Social work Program at Idaho State University, and an unofficial copy of your transcript. See online application form for further details, at <http://www.isu.edu/departments/sociolog/docs/swapp.pdf>.
4. Students must have a background check performed by the Public Safety Office at Idaho State University (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 and 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_4/6_40.html.

*Following acceptance into the Social Work Major, the student must maintain a 2.5 GPA and abide by the policies and procedures outlined in the Social Work Student Handbook posted on the Social Work homepage: <http://www.isu.edu/sociolog/socialwork.shtml>.

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 before they may enroll in upper division social work courses (those numbered 3000 and above). Pre-social work students enrolled in upper division courses without admission to the major will be withdrawn until major admission requirements have been met.

Admission to 4000 Level Courses

Admission to the senior field courses (SOWK 4476-4477) is contingent upon completion of the following:

- a. Completion of SOWK 3308, SOWK 3371, SOWK 3372, SOWK 3373, and SOC 2207 with a minimum GPA of 2.5;
- b. Maintenance of GPA to senior year at the 2.5 level;
- c. Submission of form applying for senior field experience;
- d. Interview by program senior field placement 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.

Goal 10A

ANTH 2238	Peoples and Cultures of the New World	3 cr
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Goal 10B

SPAN 1101-1102	Elementary Spanish	8 cr
	OR	
	Satisfactory completion of a language proficiency examination.	

Goal 11

POLS 1101	Introduction to American Government	3 cr
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Goal 12

SOC 1102	Social Problems	3 cr
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II. Social Science Requirements (24 credits)

Option A — Law Enforcement

POLS 2248*	Politics and the Administration of Justice	3 cr
POLS 2249	Introduction to Criminal Law	3 cr
SOC 1102	Social Problems	3 cr
SOC 2231	Juvenile Delinquency	3 cr
SOC 2248	Social Diversity	3 cr
SOC 2295	Criminal Justice Internship 1-4 cr	

PLUS one of the following:

PSYC 2200	Child Abuse	3 cr
PSYC 2205	Human Sexuality	3 cr
PSYC 2225	Child Development	3 cr
PSYC 3301	Abnormal Psychology I	3 cr

* Or approved substitute

Option B — Female Corrections

POLS 2248*	Politics and the Administration of Justice	3 cr
SOC 2248	Social Diversity	3 cr
SOC 2250	Women, Crime, and Corrections	3 cr
SOC 2295**	Criminal Justice Internship 1-4 cr	
W S 2201	Introduction to Women Studies	3 cr

PLUS one of the following:

PSYC 2200	Child Abuse	3 cr
PSYC 2205	Human Sexuality	3 cr
PSYC 2225	Child Development	3 cr
PSYC 3301	Abnormal Psychology I	3 cr

* Or approved substitute

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 1101 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 1102 Social Problems 3 credits. Theoretical analyses and application of research to selected social issues and social institutions such as politics, economics, education, medicine, families, the military, crime and corrections, religion and related major social forces. Satisfies Goal 12 of the General Education Requirements. F, S

SOC 2206 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 2207 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 1153. S

SOC 2231 Juvenile Delinquency 3 credits.

Theories of delinquency, criminal behavior, and law enforcement in relation to the modern social institutions in American culture. PREREQ: SOC 1101 or SOC 1102. F, S

SOC 2248 Social Diversity 3 credits. Examines selected theories and research concerning how race, class, gender and ethnicity intersect in and affect the lives and cultures of the peoples in the United States historically and in contemporary society. S

SOC 2250 Women, Crime and Corrections 3 credits. Analysis of theories and research applicable to women's involvement in crime, correctional centers and in professional roles in the criminal justice system. PREREQ: SOC 1102. S

SOC 2295 Criminal Justice Internship 1-4 credits. Required reading assignments and daily journal to be completed. Maximum of four credits per semester. May be repeated for up to 6 credits. PREREQ: Permission of instructor. F, S, Su

SOC 3301 Classical Social Theory 3 credits. A survey of the foundation of sociological thought from the Enlightenment to 1945. The focus is on the recurring themes in sociology and the importance of classical theory to understanding contemporary sociological theory and current social issues. PREREQ: SOC1 1101. F, S

SOC 3321 Families in American Society 3 credits. American families in social-historical contexts. Contemporary issues confronting families as social institutions and impact of family interaction dynamics. Cross-listed as CFS 3321. PREREQ: SOC 1101 or permission of instructor. F

SOC 3330 Sociology of Health and Illness 3 credits. Sociological examination of health and illness including historical and cultural variations, health care and physician-patient issues. S

SOC 3335 Population and Environment 3 credits. The scientific study of population and its environmental consequences. AF

SOC 3366 The Community 3 credits. Examines selected theories of community origins, characteristics, structures, boundaries, and change. Analyze methods of studying various aspects of communities. PREREQ: SOC 1101. F

SOC 3368 The Sociology of Religion 3 credits. Contemporary issues as they relate to religion. The relationship of religion to other social institutions. Religious experience and mysticism. Prophecy and its routinization. Cults and religious dissent. PREREQ: SOC 1101. F

SOC 4402 Proseminar in Sociology 3 credits.

An overview of the field of sociology, with emphasis on the teaching of sociology, orientation to graduate education, major sociological theories, issues, research approaches, and ethical problems in the field. PREREQ: Permission of instructor. D

SOC 4403 Contemporary Sociological Theory 3 credits. Survey and appraisal of sociological theories since 1945: structural functionalism, rational choice, conflict, symbolic interactionism, and phenomenology. PREREQ: SOC 3301. S

SOC 4408 Advanced Sociological Methods 3 credits. Emphasizes advanced techniques in research design, data measurement, and multivariate analysis utilizing computer application. PREREQ: SOC 2206 and SOC 2207. AS

SOC 4413 Mind, Body and Society 3 credits. Symbolic interaction and its relation to selfhood, sympathy, illness, sexuality, and addiction; and to groupings like enemies, communities, and associations. PREREQ: SOC 1101. F

SOC 4431 Criminology 3 credits. Analysis of criminal law, law enforcement, judicial roles and processes, correctional approaches, the criminal offender and societal reactions. Theory and research as applicable to behavior and institutional relations. PREREQ: SOC 1101 or SOC1 1102. S

SOC 4462 Power, Class, and Prestige 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 1101 or permission of instructor. S

SOC 4467 Community Networking: Cultivating the Sociological Imagination 3 credits. Advanced study of the sociology of community through readings, class discussions, lectures, and a community networking internship. S

SOC 4482 Sociology Internship 1-3 credits. Apply sociological principles in such ways as assisting the supervising professor with a lower-level course, conducting study groups, or small group instruction. Credits not applicable toward the major. May be repeated for up to 6 credits. PREREQ: Permission of instructor; junior status; minimum of 12 hours and 3.0 GPA in Sociology. D

SOC 4483 Independent Problems in Sociology 1-4 credits. Readings, observations, applied work, or data analysis in content area not offered in our curriculum. May be repeated for up to 6 credits. PREREQ: Permission of the instructor; advanced junior status; minimum of 12 hours and 3.0 GPA in Sociology. D

SOC 4491 Topics in Sociology 3 credits. Readings, discussion, and preparation of reports on selected topics. May be repeated with different content. D

Social Work Courses

SOWK 2271 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 2272 Human Behavior and the Social Environment 3 credits. Survey of human development from conception through adulthood. Focus is on the social context within which the bio-psycho-social development occurs using systems theory as a framework. F, S

SOWK 3308 Social Work Research 3 credits. Basic elements of the scientific method and research on human behavior. Examination of various research designs and techniques utilized in the field. PREREQ: Admission to Social Work major. F

SOWK 3371 Social Welfare Policy 3 credits. Social policies are created as society's strategy for addressing social problems such as unem-

ployment, poverty, mental illness. Programs and policies are re-examined to understand strengths and weaknesses. PREREQ: Admission to Social Work major. S

SOWK 3372 Practice with Individuals and Families 3 credits. Presents generic base of skills utilizing systems theory. Interviewing methods, problem identification, assessment, treatment planning, implementation and evaluation are examined in use with families and individuals. PREREQ: Admission to Social Work major. F, S

SOWK 3373 Group Work 3 credits. Group theory, process, and dynamics and their application to practice. Designing, facilitating, and terminating groups using a generic skills base. PREREQ: SOWK 3372 and admission to Social Work major. F, S

SOWK 4417 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: NURS 4417, PSYC 4417, CSED 4417. PREREQ: Permission of instructor. S

SOWK 4476 Social Work Field Practicum I 6 credits. Field experience in a social service agency under direct supervision of licensed social worker. Minimum of 200 hours of field instruction and weekly seminar. PREREQ: Permission of Department. COREQ: SOWK 4498. F, S

SOWK 4477 Social Work Field Practicum II 6 credits. Field experience in a social service agency under direct supervision of licensed social worker. Minimum of 200 hours of field instruction and weekly seminar. PREREQ: Permission of Department. COREQ: SOWK 4498. F, S

SOWK 4482 Independent Problems 1-6 credits. Consultation course. May be repeated for up to 6 credits. PREREQ: 12 credits in Social Work and permission of instructor. D

SOWK 4485 Grieving 3 credits. Preparation for working with grieving clients. Philosophical, cultural, medical, and psychological aspects of grieving. D

SOWK 4486 Family Issues in Social Work 3 credits. Advanced course in understanding of families and family issues. Techniques for assessment and intervention, drawn from various current theories. D

SOWK 4491 Seminar 3 credits. Reading, discussion, and preparation of reports on selected topics. May be repeated for up to 9 credits with different content. PREREQ: Permission of instructor. D

SOWK 4494 Community Organization and Social Change 3 credits. Practice skills related to understanding and working in the community. Focus is on social action and social change. PREREQ: SOWK 3372. F

SOWK 4498 Integration of Social Work Methods 3 credits. Integration of advanced skills and theory involved in working with individuals, families, groups, and communities. Focus on work with poor, elderly, minorities,

and women. PREREQ: Senior level in Social Work major. PREREQ OR COREQ: SOWK 4476 or SOWK 4477. F, S

Department of Theatre and Dance

Chair and Professor: Earles
Professors: Dienstfrey, Schroder
Associate Professors: Gross, Harwood, Young
Assistant Professor: Garibaldi
Lecturers: Jorgensen, Zimmerly
Assistant Lecturer: Romine

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 1104	World Dance/Local Identity	3 cr
DANC 1110	Elements of Movement	2 cr
DANC 2205	Dance in the Modern Era	3 cr
DANC 2210	Dance Composition I	3 cr
THEA 3300	Theatre Movement Workshop	2 cr
DANC 3301	Performance and Society	3 cr
DANC 1130, 2230, or 3330	Modern Dance I, II, or III	4 cr
DANC 1100, 2200, or 3300	Ballet I, II, or III	2 cr
THEA 1191 or 1192	Theatre Production	1 cr

Choose ONE of the following courses (3 cr):

DANC 4401	Aesthetic Issues in Dance	3 cr
DANC 4410	Dance Composition II	3 cr
MUSC 1100	Introduction to Music	3 cr
PE 2243	Anatomical Foundations of Human Activity	3 cr
		TOTAL: 26 cr

Dance Education Emphasis

Required Courses

DANC 1104	World Dance/Local Identity	3 cr
DANC 1110	Elements of Movement	2 cr
DANC 2205	Dance in the Modern Era	3 cr
DANC 2210	Dance Composition I	3 cr
DANC 2260	Methods of Dance for Children	3 cr
DANC 4460	Dance Teaching Methods and Curriculum Design	3 cr
DANC 1130, 2230, or 3330	Modern Dance I, II, or III	2 cr

Choose ONE of the following courses (3 cr):

DANC 1105	Survey of Dance	3 cr
DANC 3301	Performance and Society	3 cr
DANC 4401	Aesthetic Issues in Dance	3 cr
MUSC 1100	Introduction to Music	3 cr
PE 2243	Anatomical Foundations of Human Activity	3 cr

Approved electives

Student takes four (4) credits of approved courses from the recommended courses listed below.

TOTAL: 26 cr

Recommended Courses for the Dance Minor Program include:

ART 1103	Creative Process	3 cr
BIOL 3301,3301L	Anatomy and Physiology, and Lab	4 cr
BIOL 3302,3302L	Anatomy and Physiology, and Lab	4 cr
DAAC 1100	Dance Basics	1 cr
DAAC 1110	Ballroom Dance I	1 cr
DAAC 1111	Ballroom Dance II	1 cr
DAAC 1125	Latin Dance	1 cr
DAAC 1135	Middle Eastern Dance	1 cr
DAAC 1140	Tap Dance I	1 cr
DAAC 1141	Tap Dance II	1 cr
DAAC 1150	Folk/Square Dance I	1 cr
DAAC 1151	Folk/Square Dance II	1 cr
DAAC 1160	Recreational Dance I	1 cr
DAAC 1161	Recreational Dance II	1 cr
DAAC 1175	Pilates/Dance Conditioning --Matwork	1 cr
DAAC 1176	Pilates/Dance Conditioning --Equipment	1 cr
DAAC 1180	Hip Hop I	1 cr
DAAC 1181	Hip Hop II	1 cr
DAAC 1182	Hip Hop Performance	1 cr
DAAC 1195	Swing Dance	1 cr
DANC 1100	Ballet I	2 cr
DANC 1105	Survey of Dance	3 cr
DANC 1120	Jazz Dance I	2 cr
DANC 1130	Modern Dance I	2 cr
DANC 2200	Ballet II	2 cr
DANC 2220	Jazz Dance II	2 cr
DANC 2230	Modern Dance II	2 cr
DANC 2270	Dance Repertory	1-2 cr
DANC 2280	Dance Production	1-2 cr
DANC 2290	Contact Improvisation	2 cr
DANC 3300	Ballet III	2 cr
DANC 3320	Jazz Dance III	2 cr
DANC 3330	Modern Dance III	2 cr
DANC 3390	Workshop: Cultural Forms	1-2 cr
DANC 4401	Aesthetic Issues in Dance	3 cr
DANC 4410	Dance Composition II	3 cr
DANC 4460	Dance Teaching Methods and Curriculum Design	3 cr
MUSC 1100	Introduction to Music	3 cr
MUSC 1108	The World of Music	4 cr
PE 2243	Anatomical Foundations of Human Activity	3 cr
PE 4470	Care and Prevention of Athletic Injuries	3 cr
THEA 1111	Stagecraft	3 cr
THEA 1191, 1192, 3391, or 3392	Theatre Production	1 cr

THEA 2214	Make-up	2 cr
THEA 2221	Stage Costume Design and Construction	2 cr
THEA 2251	Beginning Acting	3 cr
THEA 3300	Theatre Movement Workshop	2 cr
THEA 3390	Practicum Theatre Arts I	1-2 cr
THEA 4490	Practicum Theatre Arts II	1-3 cr

Dance Courses (DANC Prefix)

DANC 1100 Ballet I 2 credits. Beginning barre, center floor work, and across the floor movement combinations including adagio, petit allegro, and grand allegro. Development of a ballet vocabulary of movement, musicality and music awareness, performance quality and intent. Focus upon classical and/or contemporary ballet dependent upon instructor of record. Assumes prior dance training. DAAC 1000 Dance Basics highly recommended. May be repeated for up to 6 credits. F, S

DANC 1104 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 1105 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 1110 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 1120 Jazz Dance I 2 credits. Development of the jazz dance technique with focus on rhythmic complexity of movement combinations, the ability to perceive movement quickly and accurately, and performance quality and intent. Core training; isolations; strength, flexibility, and speed; floor work; turns; dynamic, fluid and percussive movement. Assumes prior dance training. DAAC 1000 Dance Basics highly recommended. May be repeated for up to 6 credits. F, S

DANC 1130 Modern Dance I 2 credits. Contemporary modern dance with focus upon lifted center; fluid and articulate spine; strength and flexibility; falls, suspension and balance; musicality and music awareness developed through exercises at the barre, center floor work and movement combinations across the floor. Style of modern dance technique dependent upon instructor of record. Assumes prior dance

training. DAAC 1000 Dance Basics highly recommended. May be repeated for up to 6 credits. F, S

DANC 2200 Ballet II 2 credits. Continued development of barre exercises, center floor work, and across-the-floor movement combinations including adagio, petit allegro, and grand allegro. Continued development of ballet vocabulary of movement and movement qualities, musicality and music awareness, performance quality and intent. Focus upon classical and/or contemporary ballet dependent upon instructor of record. May be repeated for up to 6 credits. PREREQ: DANC 1000. F, S

DANC 2205 Dance in the Modern Era 3 credits. Concentrated study of the history of dance in the 20th and 21st centuries and its direct relationship to events and trends of the Modern Era through readings, films, demonstrations, and live performances. PREREQ: At least Sophomore standing. Satisfies Goal 6 of the General Education Requirements. S

DANC 2210 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 1110. S

DANC 2220 Jazz Dance II 2 credits. Continued development of the jazz dance technique with focus on rhythmic complexity of movement combinations, the ability to perceive movement quickly and accurately, performance quality and intent. Class will consist of increasing difficulty in core training; isolations; strength, flexibility, and speed; floor work; turns; dynamic, fluid and percussive movement. May be repeated for up to 6 credits. PREREQ: DANC 120. F, S

DANC 2230 Modern Dance II 2 credits. Continued development contemporary modern dance technique with focus upon lifted center; fluid and articulate spine; strength and flexibility; falls, suspension and balance; musicality and music awareness developed through exercises at the barre, center floor work and movement combinations across-the-floor. Style of modern dance technique dependent upon instructor of record. May be repeated for to 6 credits. PREREQ: DANC 1130. F, S

DANC 2260 Methods of Dance for Children 3 credits. Study of a variety of dance activities suitable for early childhood through grade 6. Students plan and teach dance to children. Interdisciplinary approaches to incorporate dance into an educational setting are used. AF

DANC 2270 Dance Repertory 1-2 credits. Rehearse and perform faculty choreographed works. Enrollment must be approved by a theatre/dance faculty member and does not presume casting in a given production. May be repeated for up to 8 credits. COREQ: DANC 1100, DANC 1120, DANC 1130, DANC 2200, DANC 2220, DANC 2230, DANC 3300, DANC 3320, or DANC 3330. F, S

DANC 2280 Dance Production 1-2 credits. Designed to assist students in developing skills necessary to create and produce formal dance productions and lecture/demonstrations.

Opportunities to choreograph, perform, and design costumes, lights, sets and sound. May be repeated for up to 8 credits. F, S

DANC 2290 Contact Improvisation, 2 credits. Beginning techniques of contact improvisation including focus on momentum, flow, gravity, and partnering skills. May be repeated for up to 4 credits. AS

DANC 3300 Ballet III 2 credits. Intermediate level barre exercises, center floor work, and across-the-floor movement combinations with increasing difficulty. Higher level of focus upon technique, performance quality and performance intent. Focus upon classical and/or contemporary ballet dependent upon instructor of record. Pointe work optional based on instructor and students. May be repeated for up to 6 credits. PREREQ: DANC 2200. F, S

DANC 3301 Performance and Society 3 credits. Examination of performance as praxis, the embodiment of theory. Draws upon the canon of 20th century theories and the performance projects they influenced to explore the performance art tradition and to create original interdisciplinary intermedia work that is reflective and reflexive of society. F

DANC 3320 Jazz Dance III 2 credits. Intermediate level jazz technique with increased rhythmic complexity of movement combinations, turns and body isolations. Increasing difficulty in perceiving movement quickly and accurately, and a higher level of performance quality and intent will be demonstrated. May be repeated for up to 6 credits. PREREQ: DANC 2220. F, S

DANC 3330 Modern Dance III 2 credits. Intermediate level technique: lifted center; fluid and articulate spine; strength and flexibility; falls, suspension and balance; musicality and music awareness developed through increased difficulty of barre exercises, center floor work and movement combinations across-the-floor. Style of modern dance technique dependent upon instructor of record. May be repeated for up to 6 credits. PREREQ: DANC 2230. F, S

DANC 3390 Workshop: Cultural Forms 1-2 credits. Workshops aimed at the development and breadth of dance skills cross-culturally. May be repeated for up to 6 credits with different titles. F, S

DANC 4401 Aesthetic Issues in Dance 3 credits. An examination into the aesthetics of human movement as they relate to the human body biologically, socially, politically, historically and culturally. S

DANC 4410 Dance Composition II 3 credits. Explore various techniques and processes used to create movement studies and choreographic work at an intermediate/advanced level. Students continue to explore improvisational processes based in the Elements of Movement. Students present their work in a concert at the end of the semester. PREREQ: DANC 2210 and THEA 3300. F

DANC 4460 Dance Teaching Methods and Curriculum Design 3 credits. Study of curricular designs, methods, materials utilized in teaching dance in schools. Practical experience in teaching others. Develop basic skills in a variety of dance forms such as creative, folk, square. AS

DANC 4485 Independent Study in Dance 1-3 credits. Individual work under the direction of a dance faculty member. Field and/or library study on 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 1100 Dance Basics 1 credit. Introduction and exploration of the basic terms and concepts of dance fundamental to ballet, jazz, modern and social dance techniques. Through the techniques of ballet barre, center floor work, and across-the-floor movement combinations, students will practice conditioning, strength, flexibility, alignment coordination, rhythm, musicality, body and spatial awareness. F, S

DAAC 1110 Ballroom Dance I 1 credit. Beginning techniques in two-step, Fox Trot, Waltz, Polka, Cha Cha Cha, Swing, and others. Taught at beginning skill level along with partnering, appropriate dress, proper etiquette. Informal performance opportunities available. F, S

DAAC 1111 Ballroom Dance II 1 credit. Intermediate techniques in two-step, Fox Trot, Waltz, Polka, Cha Cha Cha, Swing, and others. Taught at intermediate skill level along with partnering, appropriate dress, proper etiquette. Informal performance opportunities available. S

DAAC 1115 Ballroom Dance Performance 1 credit. Advanced ballroom dance students learn to choreograph and perform a "couples" dance routine; select music and costumes, and stage individual performances for formal presentation. F

DAAC 125 Latin Dance I 1 credit. Learn footwork, turns, patterns, proper posture, weight transfer, frame, connection and techniques of leading and following while learning many different Latin Dances and Music which may include Salsa, Merengue, Tango, Bachata, Rhumba, and Samba. Informal performance opportunities available. F, S

DAAC 135 Middle Eastern Dance 1 credit. Modern Middle Eastern Dance derives from the ancient cultures of the Orient to India to the Middle East. Learn basic techniques including proper stance, posture, isolations, hip and upper body movement, arm positions and traveling patterns, shimmies, turns and traveling steps while exploring aspects of music and culture specific to the varying regions presented in class. Introduction to use of finger cymbals and veil work. F, S

DAAC 1140 Tap Dance I 1 credit. Introduction to basic steps of tap technique, including coordination, rhythmic variations, and performance skills through a series of tap combinations. Tap shoes are required. Informal performance opportunities available. F, S

DAAC 1141 Tap and Clog Dance II 1 credit. Continuation of DAAC 1140, increasing in complexity of steps of tap technique. Students

learn coordination, rhythmic variations, and performance skills through a series of tap combinations. Tap shoes are required. Informal performance opportunities available. F, S

DAAC 1150 Folk and Square Dance I 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 1151 Folk and Square Dance II 1 credit. Steps/combinations taught at various skill levels. Folk dances from around the world, and square dances from America are included. Informal performance at end of semester. PREREQ: DAAC 1150 or equivalent. D

DAAC 1160 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 1161 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 1160 or equivalent. D

DAAC 1175 Pilates/Dance Conditioning- Mat-work 1 credit. A Pilates-based fitness and dance conditioning floor work-out balances strength with flexibility. Designed by Joseph Pilates in the 1920's, Pilates tones the body's major and minor muscles, increases circulation, and enhances movement performance. F, S

DAAC 1176 Pilates/Dance Conditioning-Equipment 1 credit. A Pilates-based fitness and dance conditioning work-out with equipment balances strength with flexibility while toning the body's major and minor muscles, increasing circulation, aiding correct alignment and movement efficiency for optimal performance potential. Includes training on the Wunda Chair, the Pilates Reformer, and the Cadillac. F, S

DAAC 1180 Hip Hop I 1 credit. Beginning techniques in step, break, and other elements of this social form. Students participate in improvisation and performance activities to present at an end of semester informal presentation. F, S

DAAC 1181 Hip Hop II 1 credit. Intermediate techniques in step, break, and other elements of this social form. Students participate in improvisation and performance activities to present at an end-of-semester informal presentation. F, S

DAAC 1182 Hip Hop Performance 1 credit. Intermediate level course designed to develop students' technique, performance and repertoire within the specialized styles of hip hop. Focus upon intermediate/advanced hip-hop dance techniques, patterns, routines, and choreography in preparation for formal performances. F

DAAC 1195 Swing Dance 1 credit. Swing techniques taught at a beginning skill level along with partnering, appropriate dress, proper etiquette. Informal performance opportunities available. F, S

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.
4. Competence in technical aspects of theatre.
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 1111	Stagecraft	3 cr
THEA 1131	Voice and Diction	2 cr
THEA 2209	Stage Lighting	2 cr
THEA 2211	Drafting	3 cr
THEA 2214	Makeup	2 cr
THEA 2221	Stage Costume Construction	2 cr
THEA 2251	Beginning Acting	3 cr
THEA 2252	Intermediate Acting	3 cr
THEA 3304	Theatre Management	2 cr
THEA 3311	Introduction to Scene Design	3 cr

THEA 4400	Theatre Background I	3 cr
THEA 4401	Theatre Background II	3 cr
THEA 4455	Beginning Stage Direction	3 cr

Part II (6 cr or two of the three courses)

THEA 4419	Modern European Theatre	3 cr
THEA 4420	American Theatre History	3 cr
THEA 4470	Contemporary Theatre	3 cr

Part III (choice of 9 cr)

THEA 1118	Oral Interpretation	3 cr
THEA 2218	Stage Dialects	2 cr
THEA 4402	Stage Costume History	3 cr
THEA 4403	Stage Costume Design	3 cr
THEA 4404	Problems in Acting	3 cr
THEA 4405	Advanced Costume Construction	3 cr
THEA 4406	Advanced Light Design	3 cr
THEA 4412	Scenic Painting	3 cr
THEA 4421	Basic Pattern Drafting for Stage Costuming	3 cr
THEA 4424	Advanced Acting Styles	3 cr
THEA 4426	Advanced Scene Design	3 cr
THEA 4456	Advanced Stage Direction	3 cr

Part IV: (6 credits optional)

THEA 1191,1192,3391,3392*	Theatre Production	1 cr each
THEA 3300	Theatre Movement Workshop	1-2 cr
THEA 3301	Theatre Voice Workshop	1-2 cr
THEA 3302	Beginning Costume Materials Workshop	1-2 cr
THEA 3303	Advanced Costume Materials Workshop	1-2 cr
THEA 3390	Practicum Theatre Arts I	1-2 cr
THEA 4414	Advanced Makeup	2 cr
THEA 4457	B.F.A. Studio	3 cr
THEA 4490	Practicum Theatre Arts II	1-3 cr
THEA 4491	Independent Research Projects	1-2 cr

*These four courses are 1-credit courses that may be repeated once each.

Related Areas

Required Courses:

DANC 1110	Elements of Movement	2 cr
ENGL 4476	Shakespeare	3 cr
PEAC 1139A	Beginning Fencing	1 cr

Plus 2 credits from the following dance courses:

DANC 1100	Ballet I	2 cr
DANC 1120	Jazz Dance I	2 cr
DANC 1130	Modern Dance I	2 cr
DANC 2230	Modern Dance II	2 cr
DAAC 1140	Tap Dance I	1 cr
DAAC 1141	Tap Dance II	1 cr

Bachelor of Arts in Theatre, Film, and Video

Theatre, Film and Video is a major designed for students interested in a career in producing, directing and recording live performances. It approaches professional opportunities from both on-stage and video recording perspectives.

Objective:

To help all students obtain a level of achievement appropriate to entry-level professionals in their specialty areas or to use the confidence, expressiveness, and cooperative skills gained through their studies at ISU to succeed in a diverse range of careers in the world of technology and the arts.

The program's goals include developing in the student the following:

- The ability to communicate effectively orally and in writing;
- Competency in study and research skills;
- Competency in thinking clearly, logically, and independently;
- The ability to solve problems that arise in a professional setting and working within a collaborative art form;
- Competency with theatre, film, and video technology;
- Sufficient general knowledge to pursue and succeed in a career in theatre, film, and/or video;
- The ability to critique one's work and accept criticism.

Required Courses

Freshman Year (32 credits)

MC 1119	Introduction to Mass Media	3 cr
MC 2260	Photo and Graphic Workshop	3 cr
THEA 1111	Stagecraft	3 cr
THEA 2251	Beginning Acting	3 cr
General Education Goal Courses		15 cr
Electives*		5 cr

Sophomore Year (32 credits)

MC 2201	Writing for the Camera	2 cr
MC 3300	Television Production	3 cr
THEA 2209	Stage Lighting	2 cr
	OR	
THEA 2214	Makeup	2 cr
THEA 2252	Intermediate Acting	3 cr
General Education Goal Courses		15 cr
Electives*		7 cr

Junior Year (32 credits)

MC 3306	Non-linear Editing	3 cr
MC 3360	Film Style Production	3 cr
THEA 3311	Introduction to Scene Design	3 cr
	OR	
THEA 4403	Stage Costume Design	3 cr
THEA 4455	Directing	3 cr
General Education Goal Courses		12 cr
Electives		8 cr

Senior Year (32 credits)

MC 4451	TV Studio Directing	2 cr
General Education Goal Courses		10 cr
Electives*		16 cr

Plus one of the following:

THEA 4400	Theatre Background I	3 cr
THEA 4401	Theatre Background II	3 cr
THEA 4419	Modern European Theatre	3 cr
THEA 4420	American Theatre History	3 cr
THEA 4470	Contemporary Theatre	3 cr

***Recommended Electives**

Choose electives each semester from the list below:

ANTH 4494	Visual Anthropology	3 cr
ART 1103	Creative Process	3 cr
CIS 1101	Introduction to Computer Systems	3 cr
CMLT 2220	Introduction to International Film Studies	3 cr
CMLT 3335	World Film Studies	3 cr
CMLT 4435	Topics in World Film Studies	3 cr
ENGL 1126	Art of The Film I	3 cr
ENGL 3305	Art of the Film II	3 cr
MC 2215	Graphic Design	3 cr
MC 2230, 2230L	Introduction to Photography, and Lab	4 cr
MC 2290	American Broadcasting	3 cr
MC 4441	Intellectual Property and Commercial Speech	3 cr
MC 4450	Television Workshop	2 cr
THEA 1131	Voice and Diction	2 cr*
THEA 1191, 1192, 3391, 3392	Theatre Production**	1 cr

THEA 2218	Stage Dialects	2 cr
THEA 3390, 4490	Practicum Theatre Arts I, II-3	3 cr
THEA 4404	Problems in Acting	3 cr
THEA 4405	Advanced Costume Construction	3 cr
THEA 4424	Advanced Acting Styles	3 cr
THEA 4426	Advanced Scene Design	3 cr
THEA 4456	Advanced Stage Direction	3 cr

** Theatre Production courses may be taken for 8 cumulative credits.

Minors Suggested:

- Art (Studio and Art History minors)—21 credits
- Business—18 credits
- Dance—24 credits
- English (Creative Writing Option)—21 credits

Minors—Theatre**General Minor in Theatre (Unspecified)**

THEA 1101	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 1118	Oral Interpretation:	3 cr
THEA 1131	Voice and Diction	2 cr
THEA 1101	Appreciation of Drama	3 cr
THEA 2214	Makeup	2 cr
THEA 2251	Beginning Acting	3 cr
THEA 2252	Intermediate Acting	3 cr
THEA 4404	Problems in Acting	3 cr
THEA 4424	Advanced Acting Styles	3 cr
THEA 1191, 1192, 3391, 3392*	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 1101	Appreciation of Drama	3 cr
THEA 1111	Stagecraft	3 cr
THEA 1131	Voice and Diction	2 cr
THEA 2209	Stage Lighting	2 cr
THEA 2214	Makeup	2 cr

THEA 2251	Beginning Acting	3 cr
THEA 2252	Intermediate Acting	3 cr
THEA 4404	Problems in Acting	3 cr
THEA 4424	Advanced Acting Styles	3 cr
THEA 4455	Beginning Stage Direction	3 cr
THEA 4456	Advanced Stage Directing	3 cr
		TOTAL: 30 cr

Minor in Costume

THEA 1101	Appreciation of Drama	3 cr
THEA 2209	Stage Lighting	2 cr
THEA 2211	Drafting	2 cr
THEA 2214	Makeup	2 cr
THEA 2221	Stage Costume Construction	2 cr
THEA 4402	Stage Costume History	3 cr
THEA 4403	Stage Costume Design	3 cr
THEA 4421	Basic Pattern Drafting for Stage Costuming	3 cr
THEA 1191-3392	Theatre Production	3 cr
		TOTAL: 23 cr

Minor in Technical Theatre

THEA 1101	Appreciation of Drama	3 cr
THEA 1111	Stagecraft	3 cr
THEA 2211	Drafting	2 cr
THEA 2209	Stage Lighting	2 cr
THEA 2221	Stage Costume Construction	2 cr
THEA 3304	Theatre Management	2 cr
THEA 3311	Introduction to Scene Design	3 cr
THEA 4426	Scene Design	3 cr
THEA 1191, 1192, 3391, 3392*	Theatre Production	3 cr
		TOTAL: 23 cr

*These four courses are 1-credit courses that may be repeated once each.

Minor in Technical Theatre and Costume

THEA 1101	Appreciation of Drama	3 cr
THEA 2211	Drafting	2 cr
THEA 1111	Stagecraft	3 cr
THEA 2209	Stage Lighting	3 cr
THEA 2214	Makeup	2 cr
THEA 2221	Stage Costume Construction	2 cr
THEA 3304	Theatre Management	3 cr
THEA 3311	Introduction to Scene Design	3 cr
THEA 4402	Stage Costume History	3 cr
		OR
THEA 4403	Stage Costume Design	3 cr
THEA 1191-3392	Theatre Production	3 cr
		TOTAL: 27 cr

Minor in Theatre History and Dramatic Literature

ENGL 4476	Shakespeare	3 cr
ENGL 1126	Art of the Film I	3 cr
THEA 1101	Appreciation of Drama	3 cr
THEA 4400	Theatre Background I	3 cr
THEA 4401	Theatre Background II	3 cr
THEA 4419	Modern European Theatre	3 cr
THEA 4420	American Theatre History	3 cr
THEA 4470	Contemporary Theatre	3 cr
		TOTAL: 24 cr

Theatre Courses**THEA 1101 Appreciation of Drama 3 credits.**

An audience-oriented course in the creative processes and aesthetic principles which guide artists of the live theatre, film and television in the shaping and reflection of human value. Satisfies Goal 6 of the General Education Requirements. F, S, Su

THEA 1111 Stagecraft 3 credits. Shop and crew-based course in building scenery, hanging lights, painting and properties. Lectures are based on construction theories. Students will form production staff and crews for university productions. Required for majors. F

THEA 1118 Oral Interpretation 3 credits. Analysis and interpretation of literature through performance. Prose, poetry and dramatic literature will be investigated. S

THEA 1131 Voice and Diction 2 credits. A performance-based course focusing on basic breathing, tone, diction, and other aspects of speech for stage. Students will demonstrate acquisition of these skills through lab performances. F

THEA 1191 Theatre Production 1 credit . Supervised work in theatre production. Enrollment must be approved by a theatre faculty member and does not presume casting in a given production. May be repeated for up to 8 credits. F, S, Su

THEA 2209 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 1111. S

THEA 2211 Drafting 3 credits. Class explores mechanical drafting needs in the performing arts with special emphasis on scene and lighting design. Class offers an in-depth look at manual drafting and its extension toward computer-aided drawings. S

THEA 2214 Makeup 2 credits. Laboratory sessions on the technique of makeup. Includes participation on crews of university productions. F

THEA 2218 Stage Dialects 2 credits. A practical course in the production of commonly used stage dialects. Students study the international phonetic alphabet (IPA), and train in dialect development techniques. PREREQ: THEA 1131. D

THEA 2221 Stage Costume Construction 2 credits. Methods of assembling stage costumes. Use of various fabrics and materials will be emphasized. S

THEA 2251 Beginning Acting 3 credits. Exercises in awareness, concentration, relaxation, imagination, and character interrelationships. Includes improvisation and some scene work. F, S, Su

THEA 2252 Intermediate Acting 3 credits. Creating a character. Emphasis on movement, gesture, scene analysis, and performance. PREREQ: THEA 2251, or permission of instructor. S

THEA 3300 Theatre Movement Workshop 2 credits. Exploration of techniques of movement improvisation and the text/movement synthesis of physical theatre. PREREQ: DANC 1110. D

THEA 3301 Theatre Voice Workshop 1-2 credits. Intensive vocal workshop for the actor, resulting in an understanding of phonetics using the International Phonetic Alphabet. The class will correct regional and other speech deficiencies, and aid the student in attaining a clear, articulate, and standardized American Speech for the stage. D

THEA 3302 Beginning Costume Materials Workshop 1-2 credits. Beginning costume materials, including millinery, jewelry, and mask making. D

THEA 3303 Advanced Costume Materials Workshop 1-2 credits. Experimentation with several types of fabric dye and fabric modification, such as stenciling, screen painting, batik methods, Devotee, and piping. D

THEA 3304 Theatre Management 2 credits. Consideration of administrative aspects of play production with emphasis on stage management, theatre management, publicity, and advertising. S

THEA 3311 Introduction to Scene Design 3 credits. Basic scene design emphasizing concepts of line, color, form, and texture; drafting techniques, perspective drawing, foreshortening, rendering, and model building will be introduced. PREREQ: THEA 2211. F

THEA 3331 Materials and Methods for High School Speech Arts 3 credits. Required for teaching majors in speech and theatre. D

THEA 3390 Practicum Theatre Arts I 1-2 credits. Recital projects for intermediate student groups in various areas of theatre arts. May be repeated for a maximum of 4 credits with different titles. AS

THEA 3391 Theatre Production 1 credit. Supervised work in theatre production. Enrollment must be approved by a theatre faculty member and does not presume casting in a given production. May be repeated for up to 8 credits. F, S, Su

THEA 3393 Independent Research Projects I 1-3 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 4400 Theatre Background I 3 credits. Theatre and drama, from their origins through the Jacobean period. AF

THEA 4401 Theatre Background II 3 credits. Study of the theatre and drama from the Spanish Golden Age through the "well-made play." AS

THEA 4402 Stage Costume History 3 credits. A survey of the history of western clothing from Ancient Egypt through the present. Study of the social context and motivations behind the evolution of clothing, silhouette, and costume components. THEA 2221 or permission of instructor. AF

THEA 4403 Stage Costume Design 3 credits. Costume design for the theatre incorporating the influence of period, concept, and mood. Course work includes text analysis, research, drawing, painting, and collage. AS

THEA 4404 Problems in Acting 3 credits. Focuses on special acting problems such as characterization, movement, voice, pantomime, film and television acting. Content varies from year to year. May be repeated for up to 6 credits with permission of instructor. PREREQ: THEA 2251 and THEA 2252. AS

THEA 4405 Advanced Costume Construction 3 credits. A study in period corset and millinery construction. A lab course in which students gain practical experience and skills crucial to a career in costume technology. PREREQ: THEA 2221. AS

THEA 4406 Advanced Light Design 3 credits. Study of lighting design in performing arts. Students gain knowledge through actualized projects, study of television and film lighting, and exploration of the Controllable Properties including color. PREREQ: THEA 1111, THEA 2209, and THEA 3311. D

THEA 4412 Scenic Painting 3 credits. A study of painting techniques as used in theatrical scenery; theory, practice, and equipment will be investigated as they apply to the art of stage painting. AS

THEA 4414 Advanced Makeup 2 credits. Concentrated study of characterization, care, setting, styling and application of various types of wigs. Design and construction of polyfoam prosthesis. PREREQ: THEA 2214 or permission of instructor. AS

THEA 4419 Modern European Theatre 3 credits. Continental and British theatre and drama from 1850 to mid-twentieth century. D

THEA 4420 American Theatre History 3 credits. American theatre and drama from the beginnings to mid-twentieth century. D

THEA 4421 Basic Pattern Drafting for Stage Costuming 3 credits. Cutting patterns from measurements. Adjusting various patterns to designs. Alterations and fittings. PREREQ: THEA 2221 or permission of instructor. AF

THEA 4422 Period Pattern Drafting for Stage Costuming 3 credits. Use of the basic patterns to reproduce historical costumes from the 12th century to 1950. PREREQ: THEA 4405 or permission of instructor. AS

THEA 4424 Advanced Acting Styles 3 credits. Study of various period styles of acting including Greek, Medieval, Elizabethan, Restoration, and 19th century melodrama. The student will act in a series of special projects encompassing a variety of styles. PREREQ: THEA 2251, THEA 2252, or permission of instructor. AF

THEA 4426 Advanced Scene Design 3 credits. Study of scene design in performing arts and beyond. Students work toward portfolio-quality work in realized and non-realized projects in theatre, television, film, and design areas. PREREQ: THEA 1111, THEA 2209, and THEA 3311. D

THEA 4455 Beginning Stage Direction 3 credits. Consideration of aesthetics of dramatic production and the relationship of basic techniques of stage direction. Includes the direction of scenes and one-act plays. PREREQ: THEA 1111, THEA 2251, THEA 2252, or permission of instructor. F

THEA 4456 Advanced Stage Direction 3 credits. Advanced theories in techniques of stage direction including consideration of period styles. The student will direct a series of advanced projects including scenes and a full-length play. PREREQ: THEA 4455 or permission of instructor. AS

THEA 4470 Contemporary Theatre 3 credits. World drama and theatre during the two most recent decades. AS

THEA 4490 Practicum Theatre Arts II 1-3 credits. Recital projects for advanced students in various areas of theatre arts. May be repeated for a maximum of 4 credits with different titles. AS

THEA 4491 Independent Research Projects II 1-3 credits. Under the supervision of the Theatre faculty, the advanced student will undertake special research projects in theatre, focusing on themes, methods and/or problems encountered later in one's stage life. F, S

Women Studies Program

Program Director and Assistant
Professor: Kuhlman (History)
Emerita: Ruckman

Advisory Committee

Members of the Advisory Board meet to review curricula, advise the Director on program content, consider issues facing the field or program, and formulate strategy for the future of Women Studies at Idaho State University. Students may consult with any of the faculty in the program or on this committee:

- Dr. 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 Renn (Kasiska College of Health Professions)
- Dr. Lynn Shutters (English)
- 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:

WS 2201	Introduction to Women Studies	3 cr
WS 4401	Feminist Thought	3 cr

Choose 12 credits from:

ANTH 2215	Anthropology of Gender	3 cr
HE 4445	Human Sexuality and Health Education	2 cr
HIST 4437	Families in Former Times	3 cr
HIST 4439	Women in History	3 cr
SOC 2250	Women, Crime and Corrections	3 cr
SOC 3321	Families in American Society	3 cr
COMM 4440	Gender and Communication	3 cr
WS 3311	American Women's Movements	3 cr
WS 4459	Internship*	1-6 cr
WS 4461	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 WS 4459 Internship and up to 6 credits of 4461 Independent Study. A maximum of nine credits from any combination of WS 4459 Internship and WS 4461 Independent Study are applicable to the Women Studies minor.

Women Studies Courses

WS 1160 Women's Rape Aggression Defense 1 credit. Realistic self-defense tactics and techniques designed for women. Awareness, prevention, risk reduction, risk avoidance, and basic hands-on defense training. R.A.D. is not a Martial Arts program. Cross-listed as PE 1160 and WS 1160. PREREQ: Permission of Public Safety office or sponsoring program. F, S

WS 2201 Introduction to Women Studies 3 credits. Interdisciplinary survey of the ways that various academic disciplines examine women's roles and women's issues past, present, and in various cultures, with a focus on American culture. F

WS 2205 Topics in Women Studies 1-3 credits. Examination of topics related to Women Studies. D

WS 3311 U.S. Women's Activism 3 credits. Social, historical, and political examination of the 19th century Women's Suffrage Movement, the 20th century Women's Rights Movement, and the current status of women's rights activism. S

WS 4401 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: WS 2201. F

WS 4405 Topics in Women Studies 1-3 credits. In-depth examination of topics relating to women studies, especially from a comparative or theoretical perspective. D

WS 4459 Internship 1-6 credits. Directed student internship in organization related to Women Studies. The student will be placed in a supervised position approved by faculty in the program. May be repeated for up to 6 credits. PREREQ: WS 2201. D

WS 4461 Independent Study 1-3 credits. Selected readings and research in areas of Women Studies not covered by the regular curricular offerings. May be repeated for up to 6 credits. PREREQ: 3.0 cumulative GPA and WS 2201 or equivalent; permission of instructor. D

College of Business

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
 Emeritae: 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, Khang
 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
 Professor: Hoover
 Assistant Professor: Carter
 Emeriti: Balsley, LeBlanc, Nitse,
 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 Manage-

ment. 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 3000 and above). Pre-business students enrolled in upper division College of Business courses without admission to Business major status will be administratively withdrawn. Pre-Business status remains in effect until the student meets the Business Major admission requirements.

Incoming freshmen or transfer students should plan their scheduled course work in order to complete the requirements for admission to Business major status. Information regarding Business major status along with application for admission are available from:

Undergraduate Programs Coordinator
College of Business
Location: BA 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 2201	Principles of Accounting I	3 cr
ACCT 2202	Principles of Accounting II	3 cr
BA 2200	Professional Development Seminar I	1 cr
COMM 1101	Principles of Speech	3 cr
ECON 2201	Principles of Macroeconomics	3 cr
ECON 2202	Principles of Microeconomics	3 cr
ENGL 1102	Critical Reading and Writing	3 cr
MGT 2216	Business Statistics	3 cr

Either the following course:

MATH 1160	Applied Calculus	3 cr
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OR BOTH of the following two courses:

MATH 1130	Finite Mathematics	3 cr
MATH 1143	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 1160 or by MATH 1130 and MATH 1143; Goal 11 by ECON 2201 and 2202.)

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).

ECON 2201-2202	Principles of Macroeconomics and Microeconomics	6 cr
ENGL 1101	English Composition	3 cr
ENGL 1102	Critical Reading and Writing	3 cr
ENGL 3308	Business Communications	3 cr
COMM 2201	Business and Professional Speaking	3 cr

EITHER this course:

MATH 1160	Applied Calculus	3 cr
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OR BOTH of the following two courses:

MATH 1130	Finite Mathematics	3 cr
MATH 1143	College Algebra	3 cr
TOTAL: 21 or 24 cr		

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:

ACCT 2201	Principles of Accounting I	3 cr
ACCT 2202	Principles of Accounting II	3 cr
BA 2200	Professional Development Seminar I	1 cr
BA 3301	Professional Development Seminar II	1 cr
BA 3302	Professional Development Seminar III	1 cr
BA 4400	Professional Development Seminar IV	1 cr
CIS 3301	Information Systems and Problem Solving	3 cr
CIS 3302	Information Systems Corporate	3 cr
FIN 3315	Financial Management	3 cr
FIN 3317	Fundamentals of Investments	3 cr
MGT 2216	Business Statistics	3 cr
MGT 2217	Advanced Business Statistics	3 cr
MGT 2261	Legal Environment of Organizations	3 cr
MGT 3312*	Individual and Organizational Behavior	3 cr
MGT 3329	Operations/Production Management	3 cr
MGT 4460	Problems in Policy and Management	3 cr
MKTG 3325*	Basic Marketing Management	3 cr
TOTAL: 43 cr		

*HCA 3350 and HCA 4473 are recommended substitutes for MGT 3312 and MKTG 3325, 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 1143 Requirement and Prerequisites

The MATH 1143 requirement and prerequisite is met by the student who achieves any one of the following alternatives:

- ACT Math score of 27 or greater
- SAT Math score of 620 or greater
- Compass College Algebra (MAPL 3) score of 51 or greater
- Compass Trigonometry (MAPL4) 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

ACCT 3323	Intermediate Accounting I	3 cr
ACCT 3324	Intermediate Accounting II	3 cr
ACCT 3331	Principles of Taxation	3 cr
ACCT 4425	Intermediate Accounting III	3 cr
ACCT 3341	Managerial and Cost Accounting	3 cr
ACCT 4456	Auditing	3 cr
CIS 4403	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 4434 or MGRT 4482.

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 1120	Interactive Web Programming	3 cr
CIS 2285	Introduction to Software and Systems Architecture	3 cr
CIS 4403	Systems Analysis and Logical Design	3 cr
CIS 4407	Database Design and Implementation	3 cr

Plus TWO of the following (6 cr):

CIS 2220	Foundations of Computer Programming	3 cr
CIS 3320	Advanced Business Programming	3 cr
CIS 4411	Intermediate Information Assurance	3 cr
CIS 4421	Multimedia in Business	3 cr
CIS 4424	Decision Support Systems	3 cr
CIS 4430	Ebusiness and Web Development	3 cr
CIS 4440	Object Oriented Development	3 cr
CIS 4482	Advanced System Analysis and Design	3 cr
CIS 4485	Network and Communications Systems	3 cr
CIS 4486	Business Systems Simulation	3 cr
CIS 4487	Software Systems	3 cr
CIS 4490	Management of Information Systems and Information Security	3 cr
CIS 4491	Seminar in Computer Information Systems	3 cr
CIS 4492	Special Problems in Computer Information Systems	3 cr
CIS 4493	Advanced Computer Information Systems Internship	1-3 cr
MGT 4482	Project Management	3 cr
		TOTAL 18 cr

In consultation with their major advisors, students may also use courses outside the College of Business to satisfy elective requirements.

Finance Major

Finance majors may earn a degree in Finance without emphasis or a degree in Finance with emphasis in Entrepreneurship/Small Business (see description of emphasis following the Major in Marketing).

Required Courses:

FIN 4405	Advanced Corporate Financial Management I	3 cr
FIN 4450	Advanced Corporate Financial Management II	3 cr
FIN 4478	Investments	3 cr

Plus THREE of the following, of which TWO must be within the Finance Department:

FIN 4431	Financial Modeling	3 cr
FIN 4445	Real Estate Finance	3 cr
FIN 4448	Financial Management of Depository Institutions	3 cr
FIN 4451	Student-Managed Investment Fund I	3 cr
		OR

FIN 4452	Student-Managed Investment Fund II	3 cr
FIN 4464	Entrepreneurial Finance	3 cr
FIN 4475	International Corporate Finance	3 cr
FIN 4484	Options and Futures	3 cr
FIN 4491	Seminar in Finance	3 cr
FIN 4492	Special Problems in Finance	3 cr
FIN 4493	Advanced Finance Internship	1-3 cr
Any 3000-4000 level Economics course except Independent Studies, Seminars, Workshops, and Internships		
		3 cr
Any 3000-4000 level Accounting, Management, CIS, or Marketing course except ACCT 3360, Seminars, Special Problems, Internships, and courses used to fulfill the College of Business Core Requirements. 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 3360	Small Business Accounting	3 cr
ACCT 4441	Management Control Systems	3 cr
CIS 4403	Systems Analysis and Logical Design	3 cr
CIS 4407	Database Design and Implementation	3 cr
FIN 4431	Financial Modeling	3 cr
FIN 4478	Investments	3 cr
MGT 4410	Entrepreneurship	3 cr
MGT 4441	Organizational Behavior	3 cr
MGT 4465	International Business	3 cr
MKTG 4432	New Product Management	3 cr
MKTG 4475	Competitive Intelligence	3 cr
TOTAL:		18 cr

Health Care Information Systems Management Major

The Bachelor of Business Administration Degree in Health Care Information Systems Management is delivered in cooperation with Idaho State University's Kasiska 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 Major in Computer Information Systems in addition to the Health Care Information Systems Management Major. Information systems play an increasingly important role in the

burgeoning healthcare field. The Health Care Information Systems Management (HISM) degree is intended to develop the skills necessary to manage information systems in a healthcare environment. Combining courses in healthcare administration, general business, and computer information systems, the HISM degree prepares students to work in hospitals, health clinics, and doctors' offices, as well as other health-related organizations.

Required Courses:

CIS 1120	Foundations of Computer Programming	3 cr
CIS 2285	Introduction to Software and Systems Architecture	3 cr
CIS 4403	Systems Analysis and Logical Design	3 cr
CIS 4407	Database Design and Implementation	3 cr
CIS 4411	Intermediate Information Assurance	3 cr
CIS 4485	Network and Communications Systems	3 cr
MGT 4482	Project Management	3 cr
HCA 1115	U.S. Health System	3 cr
HCA 3330	Health Information Systems	3 cr
HCA 4460	Operations and Quality	3 cr
HCA 4489	Health Care Information Systems Practicum	3 cr
TOTAL:		33 cr

Management Major

Management majors may earn a degree in Management without emphasis or a degree in Management with emphasis in Human Resource Management, in Operations Management, or in Entrepreneurship/Small Business (see descriptions of emphases following the Major in Marketing).

Required Courses:

MGT 4441	Organization Behavior	3 cr
MGT 4462	Issues in Business and Society	3 cr
MGT 4473	Human Resource Management	3 cr

Plus THREE of the following:

MGT 4410	Entrepreneurship	3 cr
MGT 4411	Entrepreneurship/Small Business Practicum	3 cr
MGT 4430	Advanced Operations/Production Management	3 cr
MGT 4434	Productivity and Quality	3 cr
MGT 4450	Manufacturing Strategy	3 cr
MGT 4461	Business Law	3 cr
MGT 4465	International Business	3 cr
MGT 4474	Advanced Human Resource Management	3 cr
MGT 4480	Labor and Employment Law	3 cr
MGT 4482	Project Management	3 cr
MGT 4483	Industrial Relations	3 cr
MGT 4491	Seminar in Management	3 cr
MGT 4492	Special Problems in Management	3 cr
MGT 4493	Advanced Management Internship	1-3 cr
MKTG 4432*	New Product Management	3 cr
TOTAL:		18 cr

* May be used only for the emphasis in Entrepreneurship/Small Business.

Marketing Major

Marketing majors may earn a degree in Marketing without emphasis or a degree in Marketing with emphasis in Entrepreneurship/Small Business (see description below).

Required Courses:

MKTG 3327	Consumer Behavior	3 cr
MKTG 3353	Methods of Marketing Analysis*	3 cr
	OR	
MKTG 4426	Marketing Research*	3 cr
MKTG 4454	Advanced Marketing Management	3 cr

*The course not taken to meet the research requirement may be taken as a Marketing elective.

Plus THREE of the following:

MKTG 3350	Personal Selling	3 cr
MKTG 3353	Methods of Marketing Analysis	3 cr
MKTG 3367	Markets and Segmentation	3 cr
MKTG 3370	Sales and Sales Management	3 cr
MKTG 4405	Sales Force Management	3 cr
MKTG 4421	Services Marketing	3 cr
MKTG 4426	Marketing Research	3 cr
MKTG 4428	Marketing Communications	3 cr
MKTG 4432	New Product Management Seminar on	3 cr
MKTG 4440	International Marketing	3 cr
MKTG 4465	International Marketing	3 cr
MKTG 4475	Competitive Intelligence	3 cr
MKTG 4480	Marketing on the Internet	3 cr
MKTG 4491	Seminar in Marketing	3 cr
MKTG 4492	Special Problems in Marketing	3 cr
MKTG 4493	Advanced Marketing Internship	1-3 cr
MGT 4410	Entrepreneurship	3 cr
MGT 4411	Small Business and Entrepreneurship Practicum	3 cr
TOTAL:		18 cr

Double Major in Management and Marketing

Students pursuing the Double Major will take the following courses:

Management:

MGT 4441	Organization Behavior	3 cr
MGT 4462	Issues in Business and Society	3 cr
MGT 4473	Human Resource Management	3 cr
Plus one pure management elective (from courses listed under management major)		

Marketing :

MKTG 3327	Consumer Behavior	3 cr
MKTG 3353	Marketing Analysis Methods	3 cr
MKTG 4454	Advanced Marketing Management	3 cr

Plus one pure marketing elective (from courses listed under marketing major).

In addition, a student pursuing this double major will take two of the following electives which double-count as both a management and a marketing elective:

MGT 4410	Entrepreneurship	3 cr
MKTG 4432	New Product Management	3 cr
MKTG 4475	Competitive Intelligence	3 cr
MKTG 4421	Services Marketing	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 4491, Special Topics, may be applied to this emphasis when the topic relates to small business or entrepreneurship. Students should request prior approval to have a topics course used for the emphasis.

Courses used to meet the requirements for the Entrepreneurship/Small Business Emphasis may also be used to meet major requirements.

Requirements:

1. Complete all degree and major requirements for a B.B.A. with major in Finance, Management, or Marketing.
2. Take the following two courses:

MGT 4410	Entrepreneurship	3 cr
MGT 4411	Small Business and Entrepreneurship Practicum	3 cr

and two of the following:

ACCT 3341	Managerial and Cost Accounting	3 cr
ACCT 3360	Small Business Accounting and Finance	3 cr
FIN 4464	Entrepreneurial Finance	3 cr
MKTG 4432	New Product Management	3 cr
MKTG 4475	Competitive Intelligence	3 cr

Human Resource Management Emphasis

An option in the Management major, the Human Resource Management emphasis provides students with an understanding of the issues faced by personnel administrators, industrial relations managers, and others involved in the management of employees. Students receive a B.B.A. in Management with Human Resources Management Emphasis.

Required Courses:

MGT 4441	Organization Behavior	3 cr
MGT 4462	Issues in Business and Society	3 cr
MGT 4473	Human Resource Management	3 cr
MGT 4474	Advanced Human Resource Management	3 cr
MGT 4480	Labor and Employment Law	3 cr

And one of the following:

MGT 4434	Productivity and Quality	3 cr
MGT 4461	Business Law	3 cr
MGT 4482	Project Management	3 cr

TOTAL: 18 cr

Native American Business Administration Emphasis

This emphasis may be added to any of the majors offered in the College of Business.

Requirements:

1. Complete all degree and major requirements for a B.B.A. in a major within the College of Business.
2. Take the following two courses:

MGT 4420	Native American Organizational Systems	3 cr
MGT 4422	Native American Enterprise	3 cr
3. Plus 6 credits of program-approved electives.

Operations Management Emphasis

This emphasis requires a total of 12 credit hours. In addition to College of Business core and major requirements, four courses must be completed, three required courses and one elective. Management majors may use MGT 4434 and 4482 to satisfy major electives and the Operations Management Emphasis Requirements.

Required courses:

ACCT 3341	Management and Cost Accounting	3 cr
MGT 4434	Productivity and Quality	3 cr
MGT 4482	Project Management	3 cr

One elective to be chosen from the following courses:

CIS 4403	Systems Analysis	3 cr
CIS 4486	Business System Simulation	3 cr
CIS 4490	Management of Information Systems	3 cr
FIN 4450	Advanced Corporate Financial Management	3 cr
MKTG 4432	New Product Management	3 cr
MKTG 4421	Services Marketing	3 cr

Minor in Computer Information Systems

Students receiving degrees in all colleges may satisfy the requirements for a Computer Information Systems minor by completing the following courses. Students pursuing this minor should seek assignment of a minor advisor early in their program to complete a Program of Study Agreement.

Required Courses:

CIS 1120	Interactive Web Development	3 cr
CIS 3301	Information Management Systems	3 cr
CIS 4403	Systems Analysis and Logical Design	3 cr

Information Systems Electives

Plus 12 additional credits chosen from any CIS courses (except CIS 1101) or MGT 4482.

Minor in International Commerce

Most often chosen by majors in Finance, Management, or Marketing, the Minor in International Commerce may be added to any Business major. Requirements are:

1. MAJOR IN BUSINESS. To be successful in an international business enterprise, a baccalaureate degree holder must be able to contribute to one of the functional operations of the business. For this reason, the minor in international commerce is limited to students obtaining a major in business.
 - 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.
2. FOREIGN LANGUAGE PROFICIENCY. Students must demonstrate a proficiency in a foreign language. This requirement could be met through:
 - a. Completion of a second semester of intermediate level foreign language with a grade of C or better.
 - b. Achieving a score on the appropriate language placement exam equivalent to a grade of C in second semester intermediate level language. International students whose primary language is not English would be exempt from this requirement. Credits in foreign language used to meet this requirement could also be used to meet General Education requirements.
3. COURSES TO DEVELOP CULTURAL AWARENESS. Nine credit hours must be taken in courses approved by the Assistant Dean that compare different cultures or examine the history, politics, social structures, or cultures of countries other than those of the student. Courses taken to meet this requirement may also be used to meet General Education requirements when appropriate.
4. INTERNATIONAL COMMERCE COURSES. Nine credit hours must be taken in international or comparative

business or economics. Courses taken to meet this requirement may be used to meet major requirements when appropriate, but are in addition to FIN 3317 (Fundamentals of Investments) which is required of all business majors. Approved courses include:

ECON 3334	International Economics	3 cr
ECON 4472	Comparative Economic Systems	3 cr
FIN 4475	International Corporate Finance	3 cr
MKTG 4440	Seminar in International Marketing	3 cr
MGT 4465	International Business	3 cr
MKTG 4465	International Marketing	3 cr

Minor in Business (for Non-Business Majors only)

The Minor in Business augments the undergraduate education of non-business students by providing exposure to courses in accounting, finance, marketing, management, and computer information systems. The goal of the minor is to provide students the opportunity to learn basic business language, concepts, and tools that will assist them in pursuing careers in their major fields.

Admission to the minor program is competitive. To apply, students must complete the application form available in the business undergraduate advising office prior to taking any minor courses. Eligibility requirements to enroll in the Business Minor program are:

- A minimum GPA of 2.25
- Completion of Goals 1, 2, and 3 prior to enrolling in any business course
- Sophomore standing or higher (at least 26 credit hours)
- An intended major other than business

In the event that enrollment in the program exceeds the available resources, student selection will be made by criteria determined by the College of Business.

Students receiving degrees in other colleges may satisfy the requirements for a Minor in Business by completing the following courses (total 18 credits):

ACCT 3303	Accounting Concepts	3 cr
BA 2203	Issues in Business	3 cr
CIS 3303	Information Technology Concepts	3 cr
FIN 3303	Financial Concepts	3 cr
MGMT 3303	Management Concepts	3 cr
MKTG 3303	Marketing Concepts	3 cr
	OR	
MKTG 3325	Basic Marketing Management	3 cr

Minor in Business Administration (for Non-Business Majors only)

The Minor in Business Administration is geared toward students who seek a significant exposure to business or who plan to pursue an 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):

ACCT 2201,2202	Principles of Accounting I and II	6 cr
BA 3301	Professional Development Seminar II	1 cr
CIS 3301	Information Systems and Problem Solving	3 cr
ECON 2201,2202	Principles of Macroeconomics and Microeconomics	6 cr
FIN 3315	Corporate Financial Management	3 cr
MGT 2216,2217	Business Statistics	6 cr
MGT 3312	Individual and Organizational Behavior	3 cr
MGT 3329	Operations/Production Management	3 cr
MKTG 3325	Basic Marketing Management	3 cr
TOTAL:		34 cr

Minor in Marketing (for Non-Business Majors only)

Students receiving degrees in other colleges may satisfy the requirements for a Marketing Minor by completing the following courses (total 18 credit hours):

Required Courses (6 credit hours):

MKTG 3325	Basic Marketing Management	3 cr
MKTG 3327	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 4454 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 3350	Personal Selling	3 cr
MKTG 3353	Methods of Marketing Analysis	3 cr
MKTG 3367	Markets and Segmentation	3 cr
MKTG 3370	Sales and Sales Management	3 cr

MKTG 4405	Sales Force Management	3 cr
MKTG 4421	Services Marketing	3 cr
MKTG 4426	Marketing Research	3 cr
MKTG 4428	Marketing Communications	3 cr
MKTG 4432	New Product Management	3 cr
MKTG 4440	Seminar in International Marketing	3 cr
MKTG 4465	International Marketing	3 cr
MKTG 4475	Competitive Intelligence	3 cr
MKTG 4480	Marketing on the Internet	3 cr
MKTG 4491	Seminar in Marketing	3 cr
MKTG 4492	Special Problems in Marketing	2-3 cr

Other Electives from Student's Major Related to Marketing (no more than 6 credit hours, which must be at 2000-level or higher):

The following are examples of courses which would qualify for inclusion in the Marketing Minor:

MC 2200	Introduction to Advertising	3 cr
MC 2241	Introduction to Public Relations	3 cr
COMM 3355	Nonverbal Communication	3 cr
ANTH 2250	Introduction to Socio-cultural Anthropology	3 cr
PSYC 2250	Female and Male Roles	3 cr
SOC 3335	Population and Environment	3 cr
SOC 3366	The Community	3 cr

These electives must be approved prior to completion of MKTG 3325 by the Chair of the Marketing Department in order to be counted toward the minor.

Post-Baccalaureate Certificate in Computer Information Systems

A Certificate in Computer Information Systems is offered for those students who have a bachelor's degree in a field other than CIS and want to improve their knowledge of information systems. To earn a Certificate in CIS, a student must complete 30 total credits from the following list. At least twelve of those credits must be taken after the student has completed a bachelor's degree.

Required Courses (33 credits)

CIS 2120	Interactive Web Development	3 cr
CIS 3220	Foundations of Computer Programming	3 cr
CIS 3285	Introduction to Software and Systems Architecture	3 cr
CIS 3301	Information Systems and Problem Solving	3 cr
CIS 4403	Systems Analysis and Logical Design	3 cr

CIS 4407	Data Base Physical Design and Implementation	3 cr
CIS 4482	Advanced System Analysis and Design	3 cr
CIS 4485	Network and Communications Systems	3 cr
CIS 4490	Management of Information Systems and Information Security	3 cr
Business Electives (chosen from list below)		6 cr

Students must take six hours of business courses in any of the following areas:

- Accounting
- Finance
- Management
- Marketing

At least three credits of business elective courses must be taken as upper division coursework (3000 or 4000 level).

Students must receive a grade better than a C- in all coursework that applies to the Certificate in CIS.

Students must meet with an advisor and complete a program of study prior to the second semester of coursework.

Associate of Science in Business

An Associate of Science in Business (AS) degree is offered for those students who do not plan to complete a B.B.A. at Idaho State University. To earn an Associate of Science in Business, a student must complete 71 total credits as listed below.

General Education Requirements

Students pursuing the Associate of Science in Business degree must complete Goals 1-9, 10A or 10B, 11, and 12 (note that Goal 3 may be satisfied by MATH 1160 Brief Calculus or by MATH 1130 and 1143).

Business and Economics Core

ACCT 2201	Principles of Accounting I	3 cr
ACCT 2202	Principles of Accounting II	3 cr
CIS 1101	Introduction to Computer Systems	3 cr
ECON 2201-2202	Principles of Macroeconomics and Microeconomics	6 cr
MGT 2216	Business Statistics	3 cr
MGT 2217	Advanced Business Statistics	3 cr
MGT 2261	Legal Environment of Organizations	3 cr

Electives

Business electives*	6 cr
TOTAL:	30 cr

* Upper-level business courses may be used to meet this requirement.

A student taking upper division business classes must be admitted in a business major OR be a non-business major with junior standing who has completed general education goals 1, 2, and 3 and four other goals.

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 1160 and MGT 2216 within their A.A.S. programs will need approximately 74-77 credits to complete a B.B.A. in Finance, Management or Marketing from Idaho State University.

Those who **have completed** the EITC/Idaho State University Associate of Applied Science in Marketing and Management:

1. May be admitted to business major status if they maintain a 2.25 or higher grade point average (GPA) in the program and a 2.25 G.P.A. in these eight courses: ENGL 1102, COMM 1101, ECON 2201, ECON 2202, MATH 1160, (or

MATH 1130 and 1143), ACCT 2202, MGT 2216, and MGT 2261.

2. Will be awarded 13 undesignated lower division business credits towards the requirements of the B.B.A. upon admission to business major status.
3. Will be waived from the ACCT 2201 requirement for the B.B.A. if they have earned a grade of "C" or better in ACCT 2202. Specific credit for ACCT 2201 will, however, not be awarded.

Accounting Courses

ACCT 2200 Personal Tax Planning 3 credits. Service course in federal taxation of individuals and small business, including tax-free income, legal tax deductions, inequities, tax planning opportunities, and individual tax return preparations. Not open to accounting majors. D

ACCT 2201 Principles of Accounting I 3 credits. Study of financial accounting processes, including analysis and recording of transactions, preparation of financial statements, and written communication of financial information. PREREQ: ENGL 1101 and MATH 1143. F, S

ACCT 2202 Principles of Accounting II 3 credits. Understanding a business from an internal management perspective. Basic terminology 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 2201 and MATH 1143. F, S

ACCT 3303 Accounting Concepts 3 credits. Overview of the use of financial and managerial accounting information by internal and external decision makers; emphasis on the uses and limitations of accounting information with real-world emphasis where appropriate. Available to non-business majors only. D

ACCT 3323 Intermediate Accounting I 3 credits. Fundamental accounting principles of valuation and income determination. Financial accounting reporting in concept as well as in accordance with generally accepted accounting principles. PREREQ: ACCT 2201, ENGL 1101, ECON 2201, ECON 2202 and MATH 1143 or ACT=27 or SAT=620 or Compass Algebra=51 or Compass Trigonometry=51. PREREQ OR COREQ: FIN 3315 or FIN 3317. F, S

ACCT 3324 Intermediate Accounting II 3 credits. Continuation of ACCT 3323. Accounting principles of valuation and income determination. Financial accounting reporting in concept as well as in accordance with generally accepted accounting principles. PREREQ: ACCT 3323, ENGL 1101, ECON 2201, ECON 2202, and MATH 1143. PREREQ OR COREQ: FIN 3315 or FIN 3317. F, S

ACCT 3331 Principles of Taxation 3 credits. Study of federal income taxation and its application to individual taxpayers and business enterprises. Practical problems in making and

filing returns. PREREQ: ACCT 2202, ENGL 1101, ECON 2201, ECON 2202, and MATH 1143. F, S

ACCT 3341 Managerial and Cost Accounting 3 credits. A strategic approach to supporting managerial decision-making throughout an organization and across the value chain. Emphasizes the measurement, analysis, communication and control of financial and nonfinancial accounting information. PREREQ: ACCT 2201, ACCT 2202, MGT 2217, and MATH 1143. PREREQ OR COREQ: ENGL 3308. F, S

ACCT 3350 Junior Accounting Seminar 1 credit. Seminar requiring students to research and present specialized accounting topics. PREREQ: ENGL 1101, ECON 2201, ECON 2202, and MATH 1143. PREREQ OR COREQ: ACCT 3323, and FIN 3315 or FIN 3317. D

ACCT 3360 Small Business Accounting 3 credits. Practical accounting issues related to starting and managing a small business, including taxes, system design and implementation, financial presentation and analysis, and personal financial planning. PREREQ: ACCT 2201 and ACCT 2202. D

ACCT 3393 Accounting Internship 1-3 credits. Internship program coordinated by faculty providing significant exposure to accounting issues. May not be used to fulfill major requirements. May be repeated for up to 3 credits. Graded S/U. F, S

ACCT 4400 Managerial Tax Planning 3 credits. For prospective business managers, owners, or investors interested in important tax consequences of alternative financial transactions. PREREQ: ECON 2201, ECON 2202, and FIN 3315. D

ACCT 4425 Intermediate Accounting III 3 credits. Continuation of ACCT 3324. Accounting principles of valuation and income determination. Financial accounting reporting in concept as well as in accordance with generally accepted accounting principles. PREREQ: ACCT 3324. PREREQ OR COREQ: FIN 3315 or FIN 3317. D

ACCT 4431 Advanced Tax Concepts 3 credits. Specialized federal tax concepts for individuals, business, estates, and trusts. Elaborates on basic principles discussed in Principles of Taxation. PREREQ: ENGL 1101, ECON 2201, ECON 2202, and MATH 1143. D

ACCT 4433 Legal Environment of Accounting 3 credits. Study of legal issues facing accountants, including business law, forms of organizations, and regulatory requirements. PREREQ: ECON 2201, ECON 2202, and MGT 2261. D

ACCT 4441 Management Control Systems 3 credits. Focuses on strategic and managerial evaluation and control systems using financial and nonfinancial accounting information. PREREQ: ACCT 2201, ACCT 2202, ENGL 1101, ECON 2201, ECON 2202, MGT 2217 and MATH 1143 and ACCT 3341, ENGL 3308, or senior standing and permission of instructor. D

ACCT 4456 Auditing 3 credits. Concepts and practices of independent and internal auditing.

Professional responsibilities, risk assessment, audit planning and reporting. PREREQ: ACCT 3324, MGT 2216, ECON 2201, ECON 2202, ENGL 1101, and MATH 1143. PREREQ OR COREQ: CIS 4403. F, S

ACCT 4457 Advanced Auditing 3 credits. Integration of financial statement auditing concepts in case discussions. Research into contemporary auditing literature. PREREQ: ACCT 4456, ACCT 3324, MGT 2216, CIS 4403, ECON 2201, ECON 2202, ENGL 1101, and MATH 1143. D

ACCT 4460 Governmental and Not-for-Profit Accounting 3 credits. Accounting and reporting principles, standards and procedures applicable to governmental units and not-for-profit institutions, i.e. universities, hospitals. Special consideration to financial management problems peculiar to the not-for-profit sector. PREREQ: ACCT 3324, ECON 2201, ECON 2202, ENGL 1101, and MATH 1143. D

ACCT 4461 Advanced Accounting 3 credits. Study of accounting problems arising in connection with partnerships, corporate affiliation; institutional, social, and fiduciary accounting; consignments; installment sales; and foreign exchange. PREREQ: ACCT 3324, ECON 2201, ECON 2202, ENGL 1101, and MATH 1143. D

ACCT 4470 Contemporary Issues in Managerial Accounting 3 credits. Contemporary topics and emerging issues in managerial accounting. This field is rapidly evolving to meet the needs of enterprises competing in a dynamic global environment. PREREQ: ACCT 3341, ACCT 2201, ACCT 2202, ECON 2201, ECON 2202, ENGL 1101, and MATH 1143. D

ACCT 4480 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 3324, ECON 2201, ECON 2202, ENGL 1101, and MATH 1143. D

ACCT 4490 Financial Reporting and Statement Analysis 3 credits. A financial accounting capstone course focusing on statement analysis from the point of view of the many users of financial statements: investors, creditors, managers, auditors, analysts, regulators, and employees through the case analysis of actual companies' financial statements. PREREQ: ACCT 4461, ACCT 3324, ECON 2201, ECON 2202, ENGL 1101. PREREQ OR COREQ: MATH 1143. D

ACCT 4491 Seminar in Accounting 3 credits. Reading, discussion, and preparation of reports on selected topics. Restricted to senior and graduate students in business who have the consent of the instructor. May be repeated for up to 6 credits with permission of instructor. D

ACCT 4492 Special Problems in Accounting 1-3 credits. Research and reports on selected problems or topics in accounting. May be repeated for up to 9 credits with different content and permission of major advisor and the Dean. PREREQ: Senior or Graduate status in Business, and permission of the Dean. D

ACCT 4493 Advanced Accounting Internship 1-3 credits. A program of significant business experience coordinated by the faculty to provide broad exposure to accounting issues. May be repeated for up to 3 credits. F, S

Business Administration Courses

BA 2200 Professional Development Seminar I 1 credit. Assessment and development of entry level technology and communication skills. Introduction to college goals and processes. Investigation of business career opportunities. Required of all students intending to major in business. PREREQ OR COREQ: ACCT 2202. F, S, Su

BA 2203 Issues in Business 3 credits. A basic overview of business operations and current issues in business with an emphasis on one or more of several business dimensions. Dimensions include business ethics, international business, business law, supply chain management, and entrepreneurship. Available to non-business majors only. D

BA 3301 Professional Development Seminar II 1 credit. Examination of critical thinking models and development of writing, oral communication, and teamwork skills using assignments from CIS 3301. Must be taken concurrently with the same numbered section of CIS 3301. COREQ: CIS 3301. F, S, Su

BA 3302 Professional Development Seminar III 1 credit. Examination of critical thinking models and development of writing, oral communication, and teamwork skills using assignments from CIS 3302. Must be taken concurrently with the same numbered section of CIS 3302. COREQ: CIS 3302. F, S, Su

BA 4400 Professional Development Seminar IV 1 credit. Assessment and development of critical thinking and communication skills. Investigation of business career and placement opportunities. COREQ: MGT 4460. F, S, Su

Computer Information Systems Courses

CIS 0010 Fundamental Computer Literacy 0 credits (3 credit equivalent). Use of basic computer software to solve problems in the academic setting. Includes familiarization with word processing, presentations, spreadsheet, Internet. Graded S/U. PREREQ: Permission of instructor. D

CIS 1101 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 1101L Introduction to Computer Systems Laboratory 0 credits. Assignments to apply concepts from CIS 101. F, S

CIS 1120 Interactive Web Development 3 credits. Introduction to developing interactive/dynamic websites, including HTML, scripting, style sheets. F, S

CIS 2219 Introduction to Informatics Practicum 1-3 credits. Informatics experience under close faculty supervision designed to provide broad exposure to issues including Information Assurance. Does not fulfill major/minor requirements. May be repeated for up to 6 credits. Graded S/U. PREREQ: Permission of instructor. D

CIS 2220 Foundations of Computer Programming 3 credits. Introduction to concepts of computers and computer-programming hardware and software, programming with an object-oriented visual language, data structures, file organization and processing. Lectures, laboratories. PREREQ: MATH 1143, CIS 1120 or any programming course. D

CIS 2220L Foundations of Computer Programming Laboratory 0 credits. Assignments to apply concepts from CIS 2220. D

CIS 2285 Introduction to Software and Systems Architecture 3 credits. Principles and application of computer hardware and systems software in the context of designing business IT infrastructures through combination of theory based lectures and applied laboratory experiences. PREREQ: CIS 2220 or CS 1181. D

CIS 2285L Introduction to Software and Systems Architecture Lab 0 credits. Assignments to apply concepts from CIS 2285. D

CIS 3301 Information Systems and Problem Solving 3 credits. Techniques and tools for analyzing and solving business problems. Development of technology based knowledge and skills for communicating solutions. PREREQ OR COREQ: MGT 2217 or any statistics course and CIS 1101 equivalent skills and knowledge. COREQ: BA 3301. F, S

CIS 3302 Information Systems 3 credits. Operational and strategic uses of information systems in an organizational context. Examination of critical thinking models and development of writing, oral communication, and teamwork skills. PREREQ: CIS 3301. COREQ: BA 3302. F, S

CIS 3303 Information Technology Concepts 3 credits. A hands-on, applied approach to providing the software tools that business minor students are likely to need in an academic setting and early in their careers. The course places an emphasis on the business use of spreadsheets and interaction with the Internet along with current issues in information technology. Available to non-business majors only. D

CIS 3310 Introduction to Information Assurance 3 credits. A survey course providing an introduction to the fields of Information Assurance and Privacy. Emphasizes legal and ethical components of information security practices. The course is designed primarily for non-CIS majors. Not applicable toward CIS major. D

CIS 3320 Advanced Business Programming 3 credits. Advanced programming; dynamic data structures; file organization and processing; efficient searching and sorting techniques. Includes study of an object-oriented visual language and a comparison with a modern database language. PREREQ: CIS 2220. D

CIS 3393 Computer Information Systems Internship 1-3 credits. Internship program coordinated by faculty providing significant exposure to computer information system issues. May not be used to fulfill major requirements. May be repeated for up to 3 credits. Graded S/U. F, S

CIS 4403 Systems Analysis and Logical Design 3 credits. Develops systems analysis skills, using modern CASE techniques, prototyping with a relational database, structured analysis and design phases of the systems development life cycle. PREREQ: CIS 3301 and junior status. F, S

CIS 4407 Database Design and Implementation 3 credits. Design and implementation of multi-user relational DBMS. Use of stored procedures, advanced SQL, query optimization, transaction processing, DBMS information assurance and administration. Secure object-oriented design, programming and UML. PREREQ: CIS 1120 or CS 1181, and CIS 4403. D

CIS 4411 Intermediate Information Assurance 3 credits. Focuses on homeland security, information assurance, integrity, control, and privacy. Covers CNSS-4011, NIST-800-16 standards, national policy, and international treaties. PREREQ: CIS 2285 or CIS 3310, or permission of instructor. PREREQ OR COREQ: CIS 1120. D

CIS 4412 Systems Security for Senior Management 1-3 credits. Review of system architecture, system security measures, system operations policy, system security management plan, and provisions for system operator and end user training. PREREQ: CIS 4411 or permission of instructor. D

CIS 4413 Systems Security Administration 1-3 credits. Outlines the basic principles of systems security administration. The student will be introduced to the methods and technologies associated with running a system to maintain privacy and security. PREREQ: CIS 4411 or permission of instructor. D

CIS 4414 Systems Security Management 1-3 credits. Establishes a framework for managing both systems and systems administrators operating in a secure and private computing environment. The course deals with facilities management, contingency plans, laws, standards of conduct and operations management. PREREQ: CIS 4411 or permission of instructor. D

CIS 4415 System Certification 1-3 credits. Describes techniques and methods for certifying a system is in compliance with national and governmental information assurance standards. Evaluates various certification methodologies. PREREQ: CIS 4411 or permission of instructor. D

CIS 4416 Risk Analysis 1-3 credits. Develops techniques to characterize and provide perspective on the likelihood of adverse events. Explains

methods to characterize the consequences and general costs associated with the various adverse events occurring. The analysis provides insight into various likelihood and consequence combinations. PREREQ: CIS 4411 or permission of instructor. D

CIS 4419 Advanced Informatics Practicum 1-3 credits. Significant informatics experience including research coordinated by the faculty designed to provide broad exposure to issues in Information Assurance. Does not fulfill major/minor requirements. May be repeated for up to 6 credits. Graded S/U. PREREQ: Permission of instructor. D

CIS 4424 Decision Support Systems 3 credits. Study of the design and implementation of decision support tools and techniques using programming languages and skills. PREREQ: CIS 4403, FIN 3315, and MGT 2217. D

CIS 4430 Ebusiness and Web Development 3 credits. Technical and business topics related to conducting business over the Internet and other networks, including implementation technologies, electronic money and funds transfer, legal and regulatory considerations, security and privacy issues. PREREQ: CIS 1120. D

CIS 4440 Object-Oriented Development 3 credits. The organization of software as a collection of discrete objects incorporating both data and operations performed on that data. Concepts of object-oriented development, including classes, inheritance, and encapsulation in a modern object-oriented language. PREREQ: CIS 2220. D

CIS 4482 Advanced Systems Analysis and Design 3 credits. Provides the knowledge and tools necessary to develop a physical design and an operational computerized system in a secure environment. PREREQ: CIS 4403, CIS 4407, MGT 3312, MGT 3329, FIN 3315, FIN 3317, and MKTG 3325, or graduate status. D

CIS 4482L Advanced Systems Analysis and Design Laboratory 0 credit. Assignments to apply principles in CIS 4482. COREQ: CIS 4482. D

CIS 4485 Network and Communication Systems 3 credits. Study of the implementation and development of network information systems. Protocols and techniques will be compared. PREREQ: CIS 2285 or permission of instructor. D

CIS 4485L Network and Communication Systems Laboratory 0 credits. Assignments to apply principles in CIS 4485. COREQ: CIS 4485. D

CIS 4486 Business System Simulation 3 credits. Study, construction, and operation of computer simulations as aids for management and administrative decisions. PREREQ: CIS 1120, MGT 2217, or permission of instructor. D

CIS 4487 Software Systems Study of the Software Implementation Process 3 credits. In addition to system optimization techniques, management strategies will be discussed. PREREQ: CIS 4403. D

CIS 4488 Senior Project 3 credits. Design, implementation and testing of a large software program. Senior status and permission of instructor. D

CIS 4490 Management of Information Systems and Information Security 3 credits. Study of the problems associated with the organization, management and operation of information technology services. PREREQ: CIS 3302 or permission of instructor. D

CIS 4491 Seminar in Computer Information Systems 3 credits. Reading, discussion, and reporting on selected topics. May be repeated for up to 6 credits with permission of instructor. PREREQ: Senior or Graduate status in Business, and permission of instructor. D

CIS 4492 Special Problems in Computer Information Systems 1-3 credits. Research and reports on problems or topics in computer science. May be repeated for up to 9 credits with different content. PREREQ: Senior or Graduate status in Business, and permission of the Dean. D

CIS 4493 Advanced Computer Information Systems Internship 1-3 credits. Significant business experience coordinated by the faculty to provide broad exposure to computer information system issues. Does not fulfill major/minor requirements. May be repeated for up to 9 credits. F, S

Finance Courses

FIN 1115 Personal Finance 3 credits. Introductory course for non-business or business majors, oriented to personal financial planning. Topics include budgeting, real estate, investing fundamentals, credit management, insurance, retirement planning, and personal income taxes. D

FIN 3303 Financial Concepts 3 credits. Applications of basic financial decision-making tools that emphasize fundamental financial concepts and literacy. Topics include financial statement analysis, time value of money, capital budgeting, risk and return, the cost of capital, valuation, investing fundamentals, raising capital, and operation of financial markets. Available to non-business majors only. PREREQ: ACCT 2203. D

FIN 3315 Corporate Financial Management 3 credits. Corporate finance basics such as financial statement analysis, time value of money, security valuation, capital investment analysis, cost of capital, capital structure, and dividend policy. PREREQ: ACCT 2201, ACCT 2202, ECON 2201, ECON 2202, and MGT 2216. PREREQ OR COREQ: BA 3301 and CIS 3301. F, S

FIN 3317 Fundamentals of Investments, International Finance, and Financial Markets 3 credits. Investment basics such as time value of money, risk and return, bond and stock valuation, interest rate determination, and portfolio theory. Introduces topics in banking and financial markets, exchange rate theory, and international financial management. PREREQ: FIN 3315, ACCT 2201, ACCT 2202, ECON 2201, ECON 2202 and MGT 2216. F, S

FIN 3393 Finance Internship 1-3 credits. Internship program coordinated by faculty providing significant exposure to financial issues. May not be used to fulfill major requirements. May be repeated for up to 3 credits. Graded S/U. F, S

FIN 4405 Advanced Corporate Financial Management I 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 3315 and MGT 2216. F

FIN 4431 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 3315. D

FIN 4445 Real Estate Finance 3 credits. Principles and methods of valuing business and residential land and improvements; analysis of sources and methods used in the financing of construction and development. PREREQ: FIN 3315. D

FIN 4448 Financial Management of Depository Institutions 3 credits. An analysis of the managerial issues which affect the financial performance of depository institutions such as capital adequacy, liquidity and asset/liability management techniques, profitability analysis, funding and investment decisions. PREREQ: FIN 3315. D

FIN 4450 Advanced Corporate Financial Management II 3 credits. Advanced development of financial statement analysis, financial planning, working capital management and special topics emphasizing analysis and application to financial management decisions. PREREQ: FIN 3315 and MGT 2216. S

FIN 4451 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 2451 or FIN 4252, but not both, toward their finance electives. PREREQ: FIN 3317. F

FIN 4452 Student-Managed Investment Fund II 3 credits. Continuation of FIN 4451. Management of the D.A. Davidson Student Investment Fund. Students act as financial analysts. Emphasis on security selection, portfolio management, and creation of an annual report. Students can apply either FIN 4451 or FIN 4452, but not both, toward their finance electives. PREREQ: FIN 3317. S

FIN 4464 Entrepreneurial Finance 3 credits. Develops financial/managerial skills important to students pursuing entrepreneurial careers. Topics include financial issues to entrepreneurial firms and financing sources available to entrepreneurial companies. PREREQ: FIN 3315. D

FIN 4475 International Corporate Finance 3 credits. Study of financing investment projects abroad including the tapping of overseas capital markets, financing export transactions, hedging foreign exchange risks, and the control alternatives of international business. PREREQ: FIN 3315 and MGT 2216. D

FIN 4478 Investments 3 credits. Fundamental principles in the risk-return valuation of financial instruments. Topics include the institutional framework in which securities are traded, modern portfolio theory, asset pricing, derivatives, and portfolio management. PREREQ: FIN 3315, FIN 3317 and MGT 2216. F, S

FIN 4484 Options and Futures 3 credits. Examination of the pricing and use of options, financial futures, swaps, and other derivative securities. PREREQ: FIN 3315, FIN 3317, and MGT 2216. D

FIN 4491 Seminar in Finance 3 credits. Reading, discussion, and preparation of reports on selected topics. Restricted to senior and graduate students in business who have the consent of the instructor. May be repeated for up to 6 credits with permission of instructor. D

FIN 4492 Special Problems in Finance 2-3 credits. Research and reports on selected problems or topics in finance. May be repeated for up to 9 credits with different content and permission of major advisor and the Dean. PREREQ: Senior or Graduate status in Business, and permission of the Dean. D

FIN 4493 Advanced Finance Internship 1-3 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. F, S

Management Courses

MGT 1101 Introduction to Business 3 credits. Relates the business person and business enterprise to the economy as a whole, describes the major field of business in terms of functions and opportunities, and charts the significant relationship to government and society. May not be taken by business students who have been admitted to major, or by juniors or seniors taking classes toward any business major. D

MGT 2216 Business Statistics 3 credits. Descriptive statistics, probability, confidence intervals, hypothesis testing including one and two sample z/t-tests, chi-square and ANOVA. Emphasis on statistical software to analyze data for business decision making. PREREQ OR COREQ: MATH 1143. F, S

MGT 2217 Advanced Business Statistics 3 credits. Linear and multiple regression, forecasting and statistical process control. Emphasis on use of statistical software; written and oral communication of statistical information in a business setting. PREREQ: MGT 2216. PREREQ OR COREQ: MATH 1143. F, S

MGT 2261 Legal Environment of Organizations 3 credits. Covers the legal, ethical, social, economic, political, and regulatory environment of business. Topics include: Business ethics, constitutional law, tort law, product liability, antitrust, employment law, securities regulation, and bankruptcy. PREREQ: Sophomore standing. F, S

MGT 3303 Management Concepts 3 credits. A basic overview of management concepts focusing primarily on managing people in organizations. Available to non-business majors only. D

MGT 3312 Individual and Organizational Behavior 3 credits. Study of internal structure and function of organizations and management practices. Provides theoretical and conceptual bases for analyzing relationships among in-

dividual, group, and total system behavior in achievement of organizational objectives within larger organizational environments. PREREQ: Junior standing and ENGL 1102. F, S

MGT 3329 Operations and Production Management 3 credits. Basic concepts, philosophy, and techniques of analysis for decision-making at the operational level. PREREQ: ACCT 2202, BA 3301, CIS 3301, and MGT 2217. F, S

MGT 3345 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 3393 Management 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

MGT 4410 Entrepreneurship 3 credits. Developing new business ideas, initiating a new enterprise, bringing new technology to the market; applying sound business practices involving management, marketing, accounting, finance and CIS to accommodate changing marketing opportunities. PREREQ: FIN 3315, MGT 3312, and MKTG 3325; Business major or permission of dean. D

MGT 4411 Small Business and Entrepreneurship Practicum 3 credits. Advanced students address eastern Idaho entrepreneurship and small business issues. Projects address complex business problems under the supervision of a senior consultant. Class discussions supplement field work. PREREQ: MGT 4410. D

MGT 4420 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 3312 or permission of instructor. D

MGT 4422 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: Junior standing or permission of instructor. D

MGT 4430 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 3329 and MGT 3312. D

MGT 4434 Productivity and Quality 3 credits. Study of the factors involved in an organization's

productivity and quality of product or service. PREREQ: MGT 3329 and MGT 3312. D

MGT 4441 Organization Behavior 3 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 3312. F, S

MGT 4450 Manufacturing Strategy 3 credits. Study of the various production alternatives as critical factors in a company's competitive strategies. PREREQ: MGT 3329 and MGT 3312. D

MGT 4460 Problems in Policy and Management 3 credits. A capstone course, which integrates the functional areas of business designed to provide insight into how business decisions are made. PREREQ: Senior standing and BA 3301, CIS 3301, FIN 3315, FIN 3317, MGT 3312, MGT 3329 and MKTG 3325. COREQ: BA 4400. F, S

MGT 4461 Business Law 3 credits. Traditional business law. Topics include the law of contracts, sales, agencies, business organizations, and personal property and bailments. PREREQ: MGT 2261. D

MGT 4462 Issues In Business and Society 3 credits. Seminar course designed to focus thinking on critical issues facing managers making decisions regarding employees and other stakeholder groups, the community, and the environment. PREREQ: Senior standing or permission of instructor. D

MGT 4465 International Business 3 credits. Special emphasis on managerial functions and critical elements of the management process in a firm operating under foreign economic, technological, political, social, and cultural environments. PREREQ: ECON 2201 and FIN 3317. D

MGT 4473 Human Resource Management 3 credits. Introduction to the methodology of employee selection, employment and development; personnel supervision and management; financial compensation; job analysis; behavioral tools and techniques employed to deal with personnel problems, and contemporary problems of manpower management. PREREQ: MGT 3312. F, S

MGT 4474 Advanced Human Resource Management 3 credits. In-depth study of selected personnel/human resources management topics, including employee selection, performance evaluation, and compensation administration. PREREQ: MGT 2217 and MGT 4473. S

MGT 4480 Labor and Employment Law 3 credits. State and federal laws, domestic and foreign, governing employment relationships, including labor-management relations, discrimination and employee rights, work place safety, compensation and benefits, and related topics. PREREQ: MGT 2261 or MGT 4473. F

MGT 4482 Project Management 3 credits. Philosophy and tools of project management focusing on applied methodologies. Addresses project scope, breakdown structure, schedules,

and closure following professionally accepted industry standards. PREREQ: MGT 3329 or permission of instructor. D

MGT 4483 Industrial Relations 3 credits. Integrated study of principles and practices of collective bargaining and industrial relations. Discussion of methods and techniques in dealing with labor-management problems arising out of contract negotiations and administration. PREREQ: MGT 3312. D

MGT 4491 Seminar in Management 3 credits. Reading, discussion, and preparation of reports on selected topics. May be repeated for up to 6 credits with permission of instructor. PREREQ: Senior or Graduate status in Business, and permission of instructor. D

MGT 4492 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

MGT 4493 Advanced Management 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. F, S

Marketing Courses

MKTG 3303 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 3325 Basic Marketing Management 3 credits. Introduction to the marketing function in business and other organizations. Environmental aspects of market selection and strategy. Analysis of product, pricing, promotion, and distribution. F, S

MKTG 3327 Consumer Behavior 3 credits. Analysis of the psychological and sociological aspects of consumer decision-making and behavior including learning, consumer perception, influence of individual predispositions on buying processes, and group influences. PREREQ: MKTG 3325. F, S

MKTG 3350 Personal Selling 3 credits. Attention given to product features, buying motives, selling points, principles and practices of selling, psychology of salesmanship, sales problems, personal requirements, opportunities. PREREQ: COMM 2201, MKTG 3325. D

MKTG 3353 Marketing Analysis Methods 3 credits. Data analysis techniques to improve marketing operations and research. Use of models to assist in understanding marketing phenomena and decision-making. PREREQ: MKTG 3325. F

MKTG 3367 Markets and Segmentation 3 credits. An in-depth analysis of the segmentation, targeting and positioning process. Examines segmentation as it operates in the macro-environment and as it impacts price, promotion and brand decisions. PREREQ: MKTG 3325. D

MKTG 3370 Sales and Sales Management 3 credits. Attention given to buying motives, principles of selling, psychology of salesmanship, personal requirements and motivation, allocation of personal sales effort, and methods of organizing, evaluating, and controlling this effort. PREREQ: MKTG 3325. D

MKTG 3393 Marketing Internship 1-3 credits. Internship program coordinated by faculty providing significant exposure to marketing issues. May not be used to fulfill major requirements. May be repeated for up to 3 credits. Graded S/U. F, S

MKTG 4405 Sales Force Management 3 credits. Determination of the amount and allocation of personal sales effort to be applied to the market and methods of organizing, evaluating, and controlling this effort. PREREQ: MKTG 3325. D

MKTG 4421 Services Marketing 3 credits. Examines the development, promotion, and management of services. Topics covered include strategic planning, delivery channels and promotional challenges inherent to services. PREREQ: MKTG 3325. D

MKTG 4426 Marketing Research 3 credits. Evaluation and study of the primary means of providing relevant marketing information to management. Emphasizes problem formulation, consideration of data sources, means of acquiring information, sampling, interpretation of results. PREREQ: MGT 2216 and MKTG 3325. S

MKTG 4428 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 3325. D

MKTG 4432 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 3325. D

MKTG 4440 Seminar in International Marketing 3 credits. Assessment of export potential using secondary research regarding the export feasibility of products offered by select firms in Southeast Idaho. PREREQ: MKTG 3325 and Permission of the instructor. D

MKTG 4454 Advanced Marketing Management 3 credits. Examines planning and problem-solving activities confronting the marketing manager. Integrates pricing, promotion, merchandising, and physical distribution and relates these to other major functional areas. PREREQ: 9 credits of upper division marketing courses. S

MKTG 4465 International Marketing 3 credits. Comparative marketing arrangements are examined. Covers factors which need to be recognized by international marketing managers in analyzing markets, covering foreign operations, and in assessing economic, cultural, and political aspects of international markets. PREREQ: MKTG 3325. D

MKTG 4475 Competitive Intelligence 3 credits. How to use competitive intelligence to gain strategic advantages. Includes understanding of information gathering techniques, the conversion of information into intelligence, various analysis methodologies, and intelligence dissemination processes. PREREQ: MKTG 3325. D

MKTG 4480 Marketing on the Internet 3 credits. Understanding and using the Internet for marketing communications. Includes evaluating current sites, developing skills for authoring HTML pages, and developing an Internet marketing strategy and site for an organization. PREREQ: MKTG 3325. D

MKTG 4491 Seminar in Marketing 3 credits. Reading, discussion, and preparation of reports on selected topics. May be repeated for up to 6 credits with permission of instructor. PREREQ: At least Senior level and permission of instructor. D

MKTG 4492 Special Problems in Marketing 2-3 credits. Research and reports on selected problems or topics in marketing. May be repeated for up to 9 credits with different content and permission of major advisor and the Dean. PREREQ: At least Senior level and permission of the Dean. D

MKTG 4493 Advanced Marketing Internship 1-3 credits. Internship program coordinated by faculty providing significant exposure to marketing issues. May not be used to fulfill major requirements. May be repeated for up to 3 credits. F, S

College of Education

Deborah L. Hedeem, 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 pre-school 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 Col-

lege 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, Rankin

Associate Professors: Coffland,
Newsome, Sanger

Assistant Professors: Counsell, Hooley,
Kelle, Moulton, Rosborough, Ruchti

Associate Lecturers: Jacobsen, Lin

Assistant Lecturers: Kauer, Toevs

Emeriti: Benintendi, Bliss, J. Coffland,

Craven, Lerch, Luckey, Marcum,

Pehrsson, Peña, Sagness, Salzman,

Spadafore

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

BED 1100 Electronic Keyboarding 1 credit. Participants will learn the touch method of keyboarding for entering information into various types of equipment through the use of a typewriter-like keyboard and a ten-key pad. D, W

BED 1102 Intermediate Keyboarding 3 credits. Instruction in typing/formatting letters, tabulations, manuscripts, and business forms on typewriters and microcomputers. Skill building will be attained, utilizing microcomputers and appropriate software. Laboratory time will be in addition to formal class instruction. PREREQ: 35 WPM or permission of instructor. D

BED 3310 Microcomputers in Business Education 3 credits. An investigation into the role of microcomputers in the Business Education Curriculum. Basic concepts of computer applications in data base, spread sheet, word processing, keyboarding, and accounting will be covered. D, W

BED 3320 Clerical Procedures 3 credits. Instruction in telephone techniques, filing and retrieving, mail/communications, reprographics, technical services and information processing. Microcomputers with appropriate software will be utilized. Laboratory time will be in addition to formal class instruction. PREREQ: 1 semester keyboarding or permission of instructor. D

BED 3330 Advanced Technology in Business Education 3 credits. Designed to prepare potential business educators with respect to the latest technological advances and microcomputer applications as they relate to the secondary business education curriculum. S, W

BED 3332 Methods in Business Education 3 credits. Designed to prepare the potential business education teacher with the necessary methodology to successfully teach business education courses at the secondary level. D

BED 3396 Work Experience in Business Occupations 1-2 credits. Credits awarded for work experience as verified by written/performance evaluation. Graded S/U. D

BED 4485 Independent Study in Business Education 1-3 credits. Individual work under staff guidance on areas of concern in business education. PREREQ: Permission of instructor. D

BED 4496 Business Education: Student Teaching Internship 7-14 credits. Candidates assume instructional and management responsibilities while teaching Business Education in a supervised high school setting. Includes weekly professional development seminar. PREREQ: Admission to Teacher Education Program and approval by advisor. Graded S/U. F, S

Child and Family Studies Program

The Child and Family Studies program includes several undergraduate options:

- Bachelor of Arts in Early Childhood Education
- Bachelor of Arts or Bachelor of Science in Secondary Education with a major in Family and Consumer Sciences Education
- Bachelor of Arts or Bachelor of Science in General Family and Consumer Sciences (a non-teaching major)
- Minor in Consumer Economics
- Minor in Family and Consumer Sciences

These degree areas are designed to prepare teachers and other professionals through general and specialized coursework. The coursework requirements for each major are listed in this section of the catalog, and include core coursework in Education (EDUC), Child and Family Studies (CFS), and/or related areas of study. Candidates interested in pursuing a degree in the area of Child and Family Studies should contact the Department of Educational Foundations for additional information. A master's degree emphasis in Child and Family Studies is also offered; this degree program is described in the Graduate Catalog.

Bachelor of 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-

ing 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 1108 and 1153; Goal 4 by BIOL 1100; and Goal 5 by CHEM 1100. The program requires that Goal 6 be met by ART 1100; Goal 11 by ECON 2201; and Goal 12 by PSYC 1101 AND SOC 1101.

Required Courses

Required courses must be taken in the recommended sequence. The candidate must work closely with a Family and Consumer Sciences advisor as early as possible in the program.

Family and Consumer Sciences Coursework

CFS 1100	Child and Family Studies Professions	1 cr
CFS 2203	The Young Child	3 cr
CFS 2209	Early Childhood Environments	3 cr
CFS 2229	Textile Products	3 cr
CFS 3314	Interior Design and Housing Perspectives	3 cr
CFS 3318	Leadership Issues Seminar	1 cr
CFS 3332	Programs in Family and Consumer Sciences	3 cr
CFS 4429	Social and Psychological Aspects of Clothing	3 cr
CFS 4431	Family Resource Management	3 cr
CFS 4435	Relationships Within Families	3 cr
CFS 4470	Consumer Economics	3 cr
EDUC 2204	Families, Communities, Culture	3 cr
NTD 1104	Foods	3 cr
NTD 2204	Meal Management	2 cr
NTD 1139	Consumer Nutrition	3 cr
	OR	
NTD 2239	Nutrition	3 cr

Recommended Electives

CFS 3321	Families and American Society	3 cr
CFS 3322	Building Positive Relationships	3 cr
CFS 4471	Advanced Consumer Economics	3 cr
CFS 4472	Teaching Consumer Economics	1-3 cr
CFS 4494	Partnerships with Professionals	3 or 6 cr
ECON 2202	Principles of Microeconomics	3 cr

Minor Coursework

Majors in General Family and Consumer Sciences must have a minor outside the Family and Consumer Sciences program area. The candidate must work closely with a Family and Consumer Sciences advisor concerning selection of this minor. Once the minor is determined, candidates should be advised within the department of the minor emphasis.

Secondary Single Subject Major in Family and Consumer Sciences Education

The Family and Consumer Sciences Education major (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 teaching 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 1108 and 1153; Goal 4 by BIOL 1100; and Goal 5 by CHEM 1100. The program requires that Goal 6 be met by ART 1100; Goal 11 by ECON 2201; and Goal 12 by PSYC 1101 and SOC 1101.

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

CFS 1100	Child and Family Studies Professions	1 cr
CFS 2203	The Young Child	3 cr

CFS 2209	Early Childhood Environment	3 cr
CFS 2229	Textile Products	3 cr
CFS 3314	Interior Design and Housing Perspectives	3 cr
CFS 3318	Leadership Issues Seminar	1 cr
CFS 4429	Social and Psychological Aspects of Clothing	3 cr
CFS 4431	Family Resource Management	3 cr
CFS 4435	Relationships Within Families	3 cr
CFS 4470	Consumer Economics	3 cr
NTD 1104	Foods	3 cr
NTD 2204	Meal Management	2 cr
NTD 1139	Consumer Nutrition	3 cr
	OR	
NTD 2239	Nutrition	3 cr
CFS 4495	Student Teaching: Family and Consumer Sciences	7-14 cr

Professional Education Core

Candidates must make formal application and complete an interview for admission to the Teacher Education Program before taking all but the first of these courses:

EDUC 2201	Development and Individual Differences	3 cr
EDUC 2204	Families, Communities, Culture	3 cr
EDUC 3301	Inquiring, Thinking, Knowing	3 cr
EDUC 3302	Motivation and Management	3 cr
EDUC 3309	Instructional Planning, Delivery and Assessment	6 cr
EDUC 3311	Instructional Technology	3 cr
EDUC 4401	Content Area Literacy	3 cr
CFS 3332	Programs in Family and Consumer Science	3 cr
SPED 3350	Creating Inclusive Classrooms	3 cr
CFS 4495	Family and Consumer Sciences Student Teaching Internship	7-14 cr

Professional-Technical Certification Requirements

HRD 4401	Foundations of Professional-Technical Education	3 cr
HRD 4444	Career Guidance and Special Needs in Professional-Technical Education	3 cr
HRD 4468	Teaching Cooperative Education and School-to-Work	3 cr

Recommended Electives

CFS 3321	Families and American Society Building	3 cr
CFS 3322	Positive Relationships	3 cr
CFS 4471	Advanced Consumer Economics	3 cr
CFS 4472	Teaching Consumer Economics	1-3 cr
CFS 4494	Partnerships with Professionals	3 or 6 cr
ECON 2202	Principles of Microeconomics	3 cr

Minor in Consumer Economics

Candidates receiving degrees in majors other than Family and Consumer Sciences may satisfy the requirements for a minor in Consumer Economics. Candidates interested in this minor should consult a Family and Consumer Sciences advisor.

Required Courses:

CFS 4431	Family Resource Management	3 cr
CFS 4470	Consumer Economics	3 cr
CFS 4471	Advanced Consumer Economics	3 cr
ECON 2201	Principles of Macroeconomics	3 cr
ECON 2202	Principles of Microeconomics	3 cr

Choose two of the following (6 credits):

ACCT 2201	Principles of Accounting I	3 cr
ACCT 2202	Principles of Accounting II	3 cr
CFS 4472	Teaching Consumer Economics	3 cr
ECON 3323	Economic History	3 cr
ECON 3331	Money and Banking	3 cr
ECON 3334	International Economics	3 cr
ECON 3338	Public Finance	3 cr
MGT 2261	Legal Environment of Organizations	3 cr
MGT 4461	Business Law	3 cr
MKTG 3325	Basic Marketing Management	3 cr
MKTG 3327	Consumer Behavior	3 cr

Minor in Family and Consumer Sciences

CFS 2203	The Young Child	3 cr
CFS 3314	Interior Design and Housing Perspectives	3 cr
CFS 3332	Programs in Family and Consumer Sciences	3 cr
CFS 4429	Social and Psychological Aspects of Clothing	3 cr
CFS 4431	Family Resource Management	3 cr
EDUC 2204	Families, Communities, Culture	3 cr
NTD 1104	Foods	3 cr

Select one course from the following:

CFS 2209	Early Childhood Environments	3 cr
CFS 2229	Textile Products	3 cr
CFS 4435	Relationships Within Families	3 cr
CFS 4470	Consumer Economics	3 cr
NTD 2204	Meal Management	2 cr
NTD 2239	Nutrition	3 cr

This is a non-certification program; please consult an advisor.

Early Childhood Education Program

The goal of the Early Childhood Education Program is to prepare professionals who have the necessary knowledge, dispositions, and abilities to:

1. enhance learning and development of young children, with and without disabilities, between the ages of birth and third grade.
2. establish collaborative relationships with families, and other professionals in ways that produce outcomes for young children.
3. view their own professional development as a lifelong endeavor.
4. advocate for children, families, and the early childhood profession.

Bachelor of Arts in 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:

CFS 1109	Introduction to the Early Childhood Profession	2 cr
CFS 2203	The Young Child 3-8	3 cr
CFS 2209	Early Childhood Environments and Interactions	3 cr
CFS 3373	Curriculum and Assessment in ECE	4 cr
CFS 3374	Constructing Social Understanding in ECE	4 cr
CFS 3375	Integrating Practice in ECE	3 cr
CFS 4411	Concepts and Practices in Blended ECE Programs I	3 cr
CFS 4412	Concepts and Practices in Blended ECE Programs II	3 cr

PE 3357	Methods of Teaching Elementary Physical Education	3 cr
EDUC 2204	Family, Community, Culture	3 cr
EDUC 2215	Preparing to Teach with Technology	3 cr
EDUC 3311	Instructional Technology	3 cr
EDUC 3321	Integrated Language Arts Methods	3 cr
EDUC 3322	Literature for Children across the Curriculum	3 cr
EDUC 3330	Elementary Math Methods	3 cr
EDUC 3331	Elementary Science Methods	3 cr
EDUC 4401	Content Area Literacy	3 cr
EDUC 4419	Developmental Literacy	3 cr
EDUC 4460	Foundations of ESL	3 cr
CFS 4493	Early Childhood Education: Student Teaching Internship	7-14 cr

Additional Coursework leading to Idaho Blended ECE/ECSE Certificate Emphasis:

CFS 2207	The Young Child Birth to Three	3 cr
CFS 4440	Partnerships with Families of Young Children	3 cr
SPED 4424	Assessment in Special Education	3 cr
SPED 4429	Strategies for Severe Disabilities	3 cr

Additional Coursework leading to Idaho Standard K-8 Certificate Emphasis:

CFS 4435	Family as Developmental Context	3 cr
MUSC 2233	Music Methods for Elementary Teachers	2 cr
EDUC 2201	Development and Individual Differences	3 cr
EDUC 2235	Introduction to Elementary Art Methods / Materials	1 cr
EDUC 3301	Inquiry, Thinking, Knowing	3 cr
EDUC 3302	Motivation and Management	3 cr
EDUC 3309	Planning, Delivery and Instruction	6 cr
EDUC 3336	Social Studies Methods	3 cr
SPED 3330	The Exceptional Child	3 cr
SPED 3350	Creating Inclusive Classrooms	3 cr

Child and Family Studies Courses

CFS 1100 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 1109 Introduction to Early Childhood Professions 2 credits. Foundations and professional careers in early childhood education and early childhood special education. S

CFS 1120 Personal Economics 3 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 2202 Field Experience Internship 1-32 credits. Working field internship; innovative approaches in preparation of CDA trainees. Experiences in a curriculum center, library, local settings, resource and day care centers, head start

programs, nursery schools (public and private), and child development centers. Experience with educational and creative supplies and materials. PREREQ: Approved enrollment in Child Development Associate Program. D

CFS 2203 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 2215. PREREQ OR COREQ: CIS 1101 or equivalent competency. F

CFS 2207 Infants and Toddlers in Early Childhood Education 3 credits. Study of developmentally appropriate care and education of infants and toddlers. Field experience required. PREREQ: CFS 2203 or permission of instructor.

CFS 2209 Early Childhood Environments 3 credits. Study of home and school environments as foundations for fostering young children's learning. Emphasis on materials, space, schedule, and verbal interactions. Field experience required. PREREQ: CFS 2203 or permission of instructor. S

CFS 2229 Textile Products 3 credits. Study of the interactive relationship among fibers, fabrics, and the construction of textile products. Information applied within the context of home and family use. PREREQ: CHEM 1100, ART 1100 or permission of instructor. S

CFS 3314 Interior Design and Housing Perspectives 3 credits. Study of individual housing needs and alternatives including practical applications and decision making. Emphasis on social-psychological aspects of housing. Topics include dwelling design, construction, financing, remodeling, and interior furnishings. F

CFS 3318 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 3321 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 3321. PREREQ: SOC 1101 or permission of instructor. F

CFS 3322 Building Positive Relationships 3 credits. Exploration of the role of decision-making and interpersonal understanding as forces in creating self-formed individuals. Emphasis placed upon building and maintaining positive interpersonal relationships. PREREQ: SOC 1101 and PSYC 1101. D

CFS 3332 Programs in Family and Consumer Sciences 3 credits. Organization of professional-technical programs as influenced by legislation, State guidelines, association standards, and philosophical frameworks. Lecture and laboratory. D

CFS 3373 Curriculum and Assessment in Early Childhood Education 4 credits. Study of assessment and inquiry based curriculum practices which support development and

integrate learning in content areas, including literacy, math, science, art, music, drama, and movement. Field experience required. PREREQ: CFS 2209 and admission to Teacher Education Program or permission of instructor. COREQ: CFS 4435. F

CFS 3374 Constructing Social Understanding in ECE 4 credits. Study of psychosocial and linguistic strategies to support learning, problem solving and other positive relationships in families and classrooms. Emergent social studies connections defined. PREREQ: CFS 3373 or permission of instructor. S

CFS 3375 Integrating Practices in Early Childhood Education 3 credits. Planning, delivery and assessment of learning in early childhood settings. Emphasis on reflective practice and professional collaboration as basis for decision-making. Field experience required. COREQ: CFS 3374 or permission of instructor. S

CFS 4400 Foundations of Early Childhood Special Education 3 credits. Survey of the history, philosophy, relevant legislation, and interdisciplinary aspects of the field. Major focus on typical and atypical development from birth through five years, integrating all areas of development. F

CFS 4401 Foundations of Early Childhood Education 3 credits. Examination of social, historical, and philosophical foundations of early childhood education and their respective influences on currently accepted concepts and practices in programs serving young children from birth through age eight. AF

CFS 4411 Concepts and Practices in Blended Early Childhood Programs I 3 credits. Synthesis of assessment and curriculum practices which support development and learning for all young children. Field experiences required. PREREQ: CFS 3373 or permission of instructor. F

CFS 4412 Concepts and Practices in Blended Early Childhood Programs II 3 credits. Candidate projects and integration of current policies, issues, and practices affecting young children and families. Introduction to program administration, supervision, and evaluation. Field experiences required. PREREQ: CFS 4411 or permission of instructor. S

CFS 4429 Social and Psychological Aspects of Clothing 3 credits. Study of clothing as a tool of self-expression and social interaction. Various personal and societal contexts emphasized. PREREQ: SOC 1100, PSYC 1100 or permission of instructor. F

CFS 4431 Family Resource Management 3 credits. Management theory for resource utilization and goal achievement. Issues include stress, communication, and family types. Emphasis on decision-making related to the dynamics of balancing work and family. PREREQ: CFS 4470 or permission of instructor. S

CFS 4435 Relationships Within Families 3 credits. Building and maintaining positive relationships within families. Critical issues facing individuals and families including communication, cultural diversity, balancing multiple roles, time management and financial planning. F

CFS 4440 Partnerships with Families of Young Children 3 credits. Examination of early intervention policies and practices. Emphasis on development and implementation of individual family service plans and service delivery in natural settings. Field experience required. PREREQ: CFS 3373 or permission of instructor. S

CFS 4470 Consumer Economics 3 credits. Financial management content with a focus on developing effective decision-making processes for managing resources. Topics: The changing American family; consumer protection and recourse; purchasing decisions; consumer credit; fundamentals of savings/investment; and insurance. F

CFS 4471 Advanced Consumer Economics 3 credits. Advanced study of social and economic problems affecting individuals and families. Topics: financial security; credit and loans; tax planning; major consumer purchases; risk management; investments; retirement and estate planning. PREREQ: CFS 4470 or permission of instructor. S

CFS 4472 Teaching Consumer Economics 1-3 credits. Designed to provide educators with current content and resources for developing consumer and economic education curriculum. Teaching techniques discussed and practiced. PREREQ: CFS 4471 or permission of instructor. D

CFS 4481 Special Problems in Child and Family Studies 1-3 credits. Candidates select problem on the basis of needs, interests, or abilities. Independent work in the laboratory, library, or community. Regular advisor conferences required. PREREQ: Permission of instructor. F, S, Su

CFS 4490 Field Experience in Child and Family Studies 1-3 credits. Candidates participate in a variety of settings including schools, agencies, businesses, and child care settings. PREREQ: Permission of instructor. F, S

CFS 4493 Early Childhood Education: Student Teaching Internship 7-14 credits. Candidates assume instructional and management responsibilities in supervised early childhood/primary setting. PREREQ: Admission to Teacher Education Program and/or approved application. Graded S/U. F, S

CFS 4494 Partnerships with Professionals 3 or 6 credits. Professional cooperative experience with business agency. Seminar plus 126 hours experience, 3 credits; 252 hours, 6 credits. PREREQ: 9 credits in emphasis area, 2.5 GPA, HRD 4457 or HRD 4455, and permission of instructor. D

CFS 4495 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 3000 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" [3.0] or higher in at least two of the following areas with a grade of no lower than "C" [2.0] in any of the three areas:
 - ENGL 1101 (English Composition) or ENGL 1102 (Critical Reading and Writing) or College of Education-approved equivalent.
 - COMM 1101 (Principles of Speech) or College of Education-approved equivalent.
 - MATH: Any of the following, or College of Education-approved equivalent:

Elementary

- a) 1108 Intermediate Algebra
- b) 1143 College Algebra
- c) 2256 Structure of Arithmetic for Elementary School Teachers
- d) 2257 Structure of Geometry and Probability for Elementary School Teachers

Secondary

- a) 1123 Mathematics in Modern Society
 - b) 1127 The Language of Mathematics
 - c) 1130 Finite Mathematics
 - d) 1160 Applied Calculus
 - e) 1170 Calculus I
 - f) 1153 Introduction to Statistics
3. A background check as outlined in EDUC 2201.
 4. A grade of "C" [2.0] or higher in the following courses:
 - EDUC 2215 Preparing to Teach with Technology or equivalent credit AND
 - EDUC 2201 Development and Individual Difference OR
 - CFS 2203 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 2201 or CFS 2203.
 7. Recommendation forms completed by EDUC 2201 or CFS 2203 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 4492, 4494, 4495, or 4496, BED 4496, CFS 4493 or 4495, PE 4495, SPED 4495):

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" [2.0] 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" [2.0] or higher in ENGL 1102 (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,

classroom management and motivation, lesson planning, delivery, technology classroom integration and assessment.

4. --participate in diverse early and extended field experiences, where their actual lesson planning, delivery, and assessment can be externally evaluated.

Summary of Requirements for a Bachelor of Arts or a Bachelor of Science degree in Elementary Education

1. 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 1101 and ENGL 1102;
Goal 2:	COMM 1101;
Goal 3:	MATH 2256 and MATH 2257;
Goal 4:	BIOL 1100 and 1100L;
Goal 5:	PHYS 1100;
Goal 6:	ART 1100, ART 1101, ART 1102, MUSC 1100, MUSC 1106, or MUSC 1108;
Goal 7:	ENGL 1110;
Goal 9:	HIST 1118;
Goal 11:	POLS 1101;
Goal 12:	SOC 1101

Additional course work in content areas is required:

English	3 cr
History (HIST 4423 or GEOL/HIST/POLS 4471)	3 cr
Science (GEOL 1101 and 1101L)	4 cr

2. Completion of a major in Elementary Education includes:

- the Professional Education Core.
- the Elementary Education Required Courses
- one Emphasis Area (English, Mathematics, Science, or History), chosen from the fields listed under Elementary Education Emphasis Areas.

The Professional Education Core

Some of these courses are required to be taken before entering the Teacher Education Program (please read course descriptions for prerequisites and corequisites).

EDUC 2201	Development and Individual Differences	3 cr
EDUC 2204	Families, Communities, Culture	3 cr
EDUC 2215	Preparing to Teach with Technology	3 cr
EDUC 3301	Inquiring, Thinking, Knowing	3 cr
EDUC 3302	Motivation and Management	3 cr
EDUC 3309	Instructional Planning, Delivery, and Assessment	6 cr
EDUC 3311	Instructional Technology	3 cr
SPED 3350	Creating Inclusive Classrooms	3 cr
EDUC 4494	Elementary Education: Student Teaching Internship	7-14 cr

Elementary Education Required Courses

EDUC 2235	Introduction to Elementary Art Methods and Materials	1 cr
EDUC 3321	Integrated Language Arts Methods	3 cr
EDUC 3322	Literature for Children across the Curriculum	3 cr
EDUC 3330	Elementary Mathematics Methods	3 cr
EDUC 3331	Elementary Science Methods	3 cr
EDUC 3336	Social Science Methods	3 cr
EDUC 4419	Developmental Literacy	3 cr
HE 2211	Health Education Methods/Elementary	1 cr
MATH 2256	Structure of Arithmetic for Elementary School Teachers	3 cr
MATH 2257	Structure of Geometry and Probability for Elementary School Teachers	3 cr
MUSC 2233	Music Methods for Elementary School Teachers	2 cr
PE 3357	Methods of Teaching Elementary Physical Education	3 cr

Elementary Emphasis Areas

English (21 cr)

ENGL 1107	Nature of Language	3 cr
ENGL 1115	Major Themes in Literature	3 cr
ANTH/ENGL 2212	Introduction to Folklore and Oral Tradition	3 cr
ENGL 2277	Survey of American Literature I	3 cr
ENGL 2278	Survey of American Literature II	3 cr
ENGL 3301	Writing About Literature	3 cr
Upper Division ENGL Elective		3 cr
		TOTAL: 21 cr

History (21 cr)

Category I – World Regions: 6 credits, one course of which must be HIST 1101 or HIST 1102

HIST 1101	Foundations of Europe	3 cr
HIST 1102	Modern Europe	3 cr
HIST 2251	Latin American Civilization	3 cr
HIST 2252	East Asian History	3 cr
HIST 2254	Middle Eastern History	3 cr
HIST 2255	African History and Culture	3 cr

Category III – Courses for Teachers

HIST 4418	United States History for Teachers	3 cr
Plus ONE of the following:		
HIST 3307	Early North America	3 cr
HIST 3308	Industrialization and Reform in the U.S.	3 cr
HIST 3309	Modern United States	3 cr

Category IV – Upper Division U.S.

History: 3 credits

HIST 4423	Idaho History	3 cr
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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 1123	Mathematics in Modern Society	3 cr
MATH 1127	Language of Mathematics	3 cr
MATH 1130	Finite Mathematics	3 cr
MATH 1144	Trigonometry	2 cr
MATH 1153	Introduction to Statistics	3 cr
MATH 1170	Calculus I	4 cr
MATH 2240	Linear Algebra	3 cr

Biology (22 cr)

BIOL 1101, 1101L	Biology I, and Lab	4 cr
BIOL 1102, 1102L	Biology II, and Lab	4 cr
BIOL 2209, 2209L	General Ecology and Lab	4 cr
BIOL 3302	Anatomy and Physiology	4 cr
BIOL 2213	Fall Flora	2 cr
	OR	
BIOL 2214	Spring Flora	2 cr
Upper Division BIOL Electives		4 cr
		TOTAL: 22 cr

Geology (23 cr minimum)

GEOL 1100, 1100L	The Dynamic Earth, and Lab	4 cr
GEOL 1101	Physical Geology	3 cr
GEOL 1110*	Physical Geology for Scientists Laboratory	1 cr
GEOL 2202	Historical Geology	3 cr
GEOL 2210	Earth in Space and Time	3 cr
GEOL 3315	Evolution of the Earth's Surface	4 cr
GEOL 4400	Geology Teaching Practicum	1 cr
GEOL 4410	Science in American Society	2 cr
GEOL/HIST/POLS 4471	Historical Geography of Idaho	4 cr

Plus one of the following courses:

GEOL 3313**	Earth Materials I	3 cr
GEOL 4406	Environmental Geology	3 cr
GEOL 4416	Global Environmental Change	3 cr
GEOL 4456	Geology of Southern Idaho	2 cr
GEOL 4458	Geology of North America	3 cr

*Note: Candidates must take GEOL 1110 even if they have taken the lab for GEOL 1100 or GEOL 1101 (GEOL 1100L or GEOL 1101L).

** (PREREQ or COREQ: CHEM 1111)

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 2270	Field Work in Special Education	2 cr
SPED 3330	The Exceptional Child	3 cr
SPED 3334	Classroom Behavior Management	3 cr
SPED 4423	Designing Instruction	3 cr
SPED 4424	Assess Procedures in Special Education	3 cr
SPED 4427	Precision Teaching	1 cr
SPED 4429	Strategies: Severe Disabilities	3 cr
SPED 4432	Direct Instruction Systems	3 cr

SPED 4438	Policies and Procedures in Special Education	3 cr
SPED 4446	Secondary Special Education	3 cr

Plus three credits of Electives selected from the following:

PE 4494	Adapted Physical Activity	3 cr
PSYC 3332	Psychology of Adolescence	3 cr
PSYC 4445	Psychology of Learning	3 cr
SOC 2231	Juvenile Delinquency	3 cr
SPED 4426	Assessment: Severe Disabilities	3 cr
SPED 4440	Biomedical Aspects of Physical Disability	2 cr
SPED 4443	Autism	2 cr
SPED 4448	Pre-Practicum, Moderately Handicapped	1-3 cr
SPED 4480	Seminar in Special Education	1 cr
SPED 4491	Seminar	1-3 cr
SPED 4498	Advanced Field Work	1-3 cr

Secondary Teacher Education

Summary of Requirements for a Bachelor of Arts or a Bachelor of Science degree in Secondary Education:

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

Some of these courses are required to be taken before entering the Teacher Education Program.

EDUC 2201	Development and Individual Differences	3 cr
EDUC 2204	Families, Communities, Culture	3 cr
EDUC 2215	Preparing to Teach with Technology	3 cr
EDUC 3301	Inquiring, Thinking, Knowing	3 cr
EDUC 3302	Motivation and Management	3 cr

EDUC 3309	Instructional Planning, Delivery, and Assessment	6 cr
EDUC 3311	Instructional Technology	3 cr
SPED 3350	Creating Inclusive Classrooms	3 cr
EDUC 4496	Secondary Education: Student Teaching Internship	7-14 cr

Required Secondary Education Course

EDUC 4401	Content Area Literacy	3 cr
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Secondary Education Teaching Majors and Minors

The Secondary Education program aligns with the College of Education Core Standards of Teacher Education and the Conceptual Framework. In addition, the program graduates teachers who exemplify the following guiding principles. The Secondary Educator:

1. Is a content area expert able to represent subject matter in multiple ways to ensure depth of student understanding.
2. Ensures curriculum alignment with state and national student achievement standards.
3. Uses all appropriate tools and techniques of teaching to guide and assess student learning.
4. Provides consistent opportunities for all students to learn and adapts instruction to meet the needs of diverse learners.
5. Fosters family and community relationships that promote student learning.

Biological Sciences Major

BIOL 1101, 1101L	Biology I and Lab	4 cr
BIOL 1102, 1102L	Biology II and Lab	4 cr
BIOL 2206	Cell Biology	3 cr
BIOL 2207	Cell Biology Laboratory	1 cr
BIOL 2209	General Ecology	4 cr
BIOL 2221	Introductory Microbiology	3 cr
BIOL 2223	Introductory Microbiology Laboratory	1 cr
BIOL 3310	Invertebrate Zoology	4 cr
BIOL 3358	Genetics	3 cr
BIOL 4413	Biology Teaching Methods	3 cr
BIOL 4417	Organic Evolution	3 cr
BIOL 4491	Seminar	1 cr
BIOL 4492	Seminar	1 cr
MATH 1153	Introduction to Statistics OR	3 cr
MATH 1160	Applied Calculus	3 cr

Plus one of the following botany course options:

BIOL 2213, 2214	Spring and Fall Flora*	4 cr
BIOL 4404	Plant Physiology	4 cr
BIOL 4405	Plant Anatomy	3 cr
BIOL 4406	Plant Diversity and Evolution	4 cr
BIOL 4408	Plant Ecology	3 cr
BIOL 4412	Systematic Botany*	4 cr

*Recommended course is BIOL 4412 instead of BIOL 2213 or 2214.

BIOL 4431 is also a recommended elective.

Biological Sciences Minor

BIOL 1101, 1101L	Biology I and Lab	4 cr
BIOL 1102, 1102L	Biology II and Lab	4 cr
BIOL 2221	Introductory Microbiology	3 cr
BIOL 2223	Introductory Microbiology Laboratory	1 cr
BIOL (Botany—a minimum of 2 credits are required for teaching certification)		
BIOL 4413	Biology Teaching Methods	3 cr
MATH 1153	Introduction to Statistics OR	3 cr
MATH 1160	Applied Calculus	3 cr

Plus two of the following:

BIOL 2209	General Ecology	4 cr
BIOL 3358	Genetics	3 cr
BIOL 4417	Organic Evolution	3 cr

Business Education Major

ACCT 2201	Principles of Accounting I	3 cr
BED 1102	Intermediate Keyboarding	3 cr
BED 3310	Microcomputers in Business Education	3 cr
BED 3320	Clerical Procedures	2 cr
BED 3330	Advanced Technology in Business Education	3 cr
BED 3332	Methods in Business Education	3 cr
CFS 4470	Consumer Economics	3 cr
HRD 4401	Foundations of Occupational Education	3 cr
HRD 4444	Career Guidance and Special Needs in Professional-Technical Education	3 cr
HRD 4468	Teaching Cooperative Education and School-to-Work	3 cr

Select 3 credits from the following:

ECON 1100	Economic Issues	3 cr
ECON 2201	Principles of Macroeconomics	3 cr
ECON 2202	Principles of Microeconomics	3 cr

Business Education Minor

ACCT 2201	Principles of Accounting	3 cr
BED 1102	Intermediate Keyboarding	3 cr
BED 3310	Microcomputers in Business Education	3 cr
BED 3320	Clerical Procedures	2 cr
BED 3332	Methods in Business Education	3 cr
HRD 4401	Foundations of Professional-Technical Education	3 cr

Select from the following: 3 cr

CFS 4470	Consumer Economics	3 cr
ECON 1100	Economic Issues	3 cr
ECON 2201	Principles of Macroeconomics	3 cr
ECON 2202	Principles of Microeconomics	3 cr

Chemistry Major

CHEM 1111, 1111L	General Chemistry I, and Lab	5 cr
CHEM 1112, 1112L	General Chemistry II, and Lab	4 cr
CHEM 2211	Inorganic Chemistry I	3 cr
CHEM 2213	Inorganic Chemistry I Lab	1 cr
CHEM 2232	Quantitative Analysis	2 cr
CHEM 2234	Quantitative Analysis Lab	2 cr
CHEM 4400	Practicum in Physical Science	2 cr
Approved electives in Chemistry		12 cr

Chemistry Minor

CHEM 1111, 1111L	General Chemistry I, and Lab	5 cr
CHEM 1112, 1112L	General Chemistry II, and Lab	4 cr
CHEM 2211	Inorganic Chemistry I	3 cr

CHEM 2213	Inorganic Chemistry I Lab	1 cr
CHEM 4400	Practicum in Physical Science	2 cr
Approved electives in Chemistry		7 cr

Communication and Rhetorical Studies Major

MC 1119	Introduction to Mass Media	3 cr
COMM 2208	Group Communication	3 cr
COMM 3305	Argumentation and Debate	3 cr
COMM 4436	Rhetorical Criticism	3 cr
COMM 4437	Rhetorical Theory	3 cr
COMM 4441	Interpersonal Communication	3 cr
THEA 1111	Stagecraft I	3 cr
THEA 1118	Oral Interpretation	3 cr
THEA 2251	Beginning Acting	3 cr
THEA 3331	Materials and Methods for High School Speech Arts	3 cr
One 4000 level elective in Speech		3 cr

Communication and Rhetorical Studies Minor

COMM 2208	Group Communication	3 cr
COMM 3305	Argumentation and Debate	3 cr
COMM 3355	Nonverbal Communication	3 cr
COMM 4436	Rhetorical Criticism	3 cr
COMM 4437	Rhetorical Theory	3 cr
COMM 4441	Interpersonal Communication	3 cr
One 4000 level elective in Speech		3 cr

Consumer Economics Minor

CFS 4431	Family Resource Management	3 cr
CFS 4470	Consumer Economics	3 cr
CFS 4471	Advanced Consumer Economics	3 cr
ECON 2201	Principles of Macroeconomics	3 cr
ECON 2202	Principles of Microeconomics	3 cr
Choose two of the following (6 credits):		
ACCT 2201	Principles of Accounting I	3 cr
ACCT 2202	Principles of Accounting II	3 cr
CFS 4472	Teaching Consumer Economics	1-3 cr
ECON 3323	Economic History	3 cr
ECON 3331	Money and Banking	3 cr
ECON 3334	International Economics	3 cr
ECON 3338	Public Finance	3 cr
MGT 2261	Legal Environment of Organizations	3 cr
MGT 4461	Business Law	3 cr
MKTG 3325	Basic Marketing Management	3 cr
MKTG 3327	Consumer Behavior	3 cr

Deaf Education Minor*

CSED 1126	Deaf Studies	1 cr
CSED 2205	Introduction to Communication Differences and Disorders	3 cr
CSED 2256	Deaf Culture and Community	3 cr
CSED 3330	Language Science and Development	3 cr
CSED 4456	Psychosocial Aspects of Deafness	3 cr
CSED 4460	Educational Audiology	3 cr

Electives (8 credits minimum)

CSED 1151	American Sign Language I	4 cr
CSED 1152	American Sign Language II	4 cr
CSED 2251	American Sign Language III	4 cr
CSED 2252	American Sign Language IV	4 cr
CSED 3327	Basic Sign I	2 cr
CSED 3328	Basic Sign II	2 cr
CSED 4405	Neurological Bases of Communication Disorders	3 cr
TOTAL:		24 cr

* (non certification)

Procedure: Interested students should contact the department of Communication Sciences & Disorders, and Education of the Deaf to declare a minor and be assigned a minor advisor. Students with a minor in Deaf Education and who are eligible for a teaching certificate may be prepared to enter the regular, 14 month graduate program.

Economics Major

ECON 2201	Principles of Macroeconomics	3 cr
ECON 2202	Principles of Microeconomics	3 cr
ECON 3301	Macroeconomic Theory	3 cr
ECON 3302	Microeconomic Theory	3 cr
ECON 3323	Economic History	3 cr
ECON 3331	Money and Banking	3 cr
Approved electives in Economics		12 cr

Economics Minor

ECON 2201	Principles of Macroeconomics	3 cr
ECON 2202	Principles of Microeconomics	3 cr
ECON 3301	Macroeconomic Theory	3 cr
ECON 3302	Microeconomic Theory	3 cr
Approved electives in Economics		12 cr

English Major

ENGL 2211	Introduction to Literary Analysis	3 cr
ENGL 2267 or 2268	Survey of English Literature I or II	3 cr
ENGL 2277 or 2278	Survey of American Literature I or II	3 cr
ENGL 2280	Grammar and Usage OR	3 cr
ENGL 2281	Introduction to Language Studies	3 cr
ENGL 3301	Writing About Literature	3 cr
ENGL 4433*	Methods: Teaching English	3 cr
ENGL 4491	Senior Seminar	3 cr

One of the following:

ENGL 4472	Proseminar in a Major Literary Figure	3 cr
ENGL 4473	Chaucer	3 cr
ENGL 4474	Milton	3 cr
ENGL 4476	Shakespeare	3 cr

Plus one additional course from the following:

ENGL 2257 or 2258	Survey of World Literature I or II	3 cr
ENGL 2267 or 2268	Survey of British Literature I or II	3 cr
ENGL 2277 or 2278	Survey of American Literature I or II	3 cr
Approved electives (6 cr must be upper division)		9 cr

* ENGL 4433 must be completed before Student Teaching Internship.

English Minor

ENGL 2211	Introduction to Literary Analysis	3 cr
ENGL 2267 or 2268	Survey of British Literature I or II	3 cr
ENGL 2277 or 2278	Survey of American Literature I or II	3 cr
ENGL 2280	Grammar and Usage OR	3 cr
ENGL 2281	Introduction to Language Studies	3 cr
ENGL 3301	Writing About Literature	3 cr
ENGL 4433*	Methods: Teaching English	3 cr

Plus one course from the following:

ENGL 2206	Creative Writing Workshop	3 cr
ENGL 3307	Professional and Technical Writing	3 cr

ENGL 3308	Business Writing	3 cr
ENGL 4401	Advanced Composition	3 cr
ENGL 4431	Teaching and Writing Projects: Special Topics	3 cr

Plus one course from the following:

ENGL 2257 or 2258	Survey of World Literature I or II	3 cr
ENGL 2267 or 2268	Survey of British Literature I or II	3 cr
ENGL 2277 or 2278	Survey of American Literature I or II	3 cr

* ENGL 4433 must be completed before Student Teaching Internship.

English as a Second Language (ESL) Minor

Foreign Language (8 credits) Choose 8 credits from any foreign language.

Multicultural Education (6 credits)

Choose two courses from:

ANTH/ENGL 2212	Introduction to Folklore/Oral Tradition	3 cr
ANTH 2250	Introduction to Sociocultural Anthropology	3 cr
ENGL 3356	Ethnicity and Minority Literature	3 cr
SOC 2248	Social Diversity	3 cr

ESL Methodology (7 credits)

EDUC 4460	Foundations of ESL	3 cr
EDUC 4463	ESL Methods	3 cr
EDUC 4464	ESL Practicum	1 cr

Linguistics (6 credits)

ANTH/ENGL/LANG 1107	Nature of Language	3 cr
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Choose one course from:

ANTH 4450	Introduction to Sociolinguistics	3 cr
ANTH/LANG 4455	Linguistic Analysis I	3 cr

Family and Consumer Sciences Minor

CFS 2203	The Young Child	3 cr
CFS 3314	Interior Design and Housing Perspectives	3 cr
CFS 3332	Programs in Family and Consumer Sciences	3 cr
CFS 4429	Social and Psychological Aspects of Clothing	3 cr
CFS 4431	Family Resource Management	3 cr
EDUC 2204	Families, Communities, Culture	3 cr
NTD 1104	Foods	3 cr

Select one course from the following:

CFS 2209	Early Childhood Environments	3 cr
CFS 2229	Textile Products	3 cr
CFS 4435	Relationships Within Families	3 cr
CFS 4470	Consumer Economics	3 cr
NTD 2204	Meal Management	2 cr
NTD 2239	Nutrition	3 cr

This is a non-certification program; please consult an advisor.

French Major

FREN 3301-3302	French Conversation and Composition	6 cr
and their prerequisites or equivalent high school courses.		
LANG 4437	The Teaching of Foreign Languages	3 cr

Upper division electives in French 12 cr
(must be approved by the Foreign Languages Department and the College of Education).

French Minor

FREN 2201-2202 Intermediate French 8 cr
(or equivalent)
LANG 4437 The Teaching of
Foreign Languages 3 cr
Approved electives in French 12 cr
(must be approved by the Foreign Languages Department and the College of Education).

Geology Major (at least 30 cr)

GEOL 1100, 1100L The Dynamic Earth, and Lab 4 cr
OR
GEOL 1101 Physical Geology 3 cr
GEOL 1110* Physical Geology
for Scientists Lab 1 cr
GEOL 2202 Historical Geology 3 cr
GEOL 2210 Earth in Space and Time 3 cr
GEOL 3313** Earth Materials I 3 cr
GEOL 3315 Evolution of the Earth's Surface 4 cr
GEOL 4400 Geology Teaching Practicum 1 cr
GEOL 4406 Environmental Geology 3 cr
GEOL/PHYS 4410 Science in American Society 2 cr
GEOL/HIST/POLS 4471
Historical Geography of Idaho 4 cr

Plus approved electives from the following,

to reach a total of at least 30 credits:

GEOL 1122 Rocks and Stars 3 cr
GEOL 3314 Earth Materials II 3 cr
GEOL 4403 Principles of GIS 3 cr
GEOL 4405 Volcanology 3 cr
GEOL 4416 Global Environmental Change 3 cr
GEOL 4420 Principles of Geochemistry 3 cr
GEOL 4422 Planetary Geology for Teachers 3 cr
GEOL 4430 Principles of Hydrogeology 3 cr
GEOL 4431 Geobiology and the History
of Life 4 cr
GEOL 4452 Sedimentation Stratigraphy 4 cr
GEOL 4456 Geology of Southern Idaho 2 cr
GEOL 4458 Geology of North America 3 cr
GEOL 4491 Seminar 1 to 3 cr

Other geoscience courses as approved by Geoscience advisor

*Note: Candidates must take GEOL 1110 even if they have taken the lab for GEOL 1100 or GEOL 1101 (GEOL 1100L or GEOL 1101L).

** (PREREQ or COREQ CHEM 1111)

Geology Minor (at least 22 cr)

GEOL 1100, 1100L The Dynamic Earth, and Lab 4 cr
OR
GEOL 1101 Physical Geology 3 cr
GEOL 1110* Physical Geology
for Scientists Lab 1 cr
GEOL 2202 Historical Geology 3 cr
GEOL 2210 Earth in Space and Time 3 cr
GEOL 3313** Earth Materials I 3 cr
GEOL 3315 Evolution of the Earth's Surface 4 cr
GEOL 4400 Geology Teaching Practicum 1 cr
GEOL/PHYS 4410 Science in American Society 2 cr

Plus electives from the following,
to reach a total of at least 22 credits:

GEOL 4416 Global Environmental Change 3 cr
GEOL 4422 Planetary Geology for Teachers 3 cr
GEOL 4456 Geology of Southern Idaho 2 cr
GEOL 4458 Geology of North America 3 cr
GEOL/HIST/POLS 4471
Historical Geography of Idaho 4 cr
GEOL 4491 Seminar 1 cr

Other geoscience electives may be approved by advisor

*Note: Candidates must take GEOL 1110 even if they have taken the lab for GEOL 1100 or GEOL 1101 (GEOL 1100L or GEOL 1101L).

** (PREREQ or COREQ is CHEM 1111)

German Major

GERM 3301-3302 German Conversation
and Composition 6 cr
and their prerequisites or
equivalent high school courses.
LANG 4437 The Teaching of
Foreign Languages 3 cr
Upper division electives in German 12 cr
(must be approved by the Foreign Languages Department and the College of Education).

German Minor

GERM 2201, 2202 Intermediate German 8 cr
(or equivalent)
LANG 4437 The Teaching of
Foreign Languages 3 cr
Approved electives in German 12 cr
(must be approved by the Foreign Languages Department and the College of Education).

Health Education Teaching Major

Prerequisites:

Admission to Teacher Education Program
Admission to Health Education Program

Health Education Core:

HE 2200 Promoting Wellness 2 cr
HE 2221 Introduction to Health
Education 3 cr
HE 3340, 3340L Fitness and Wellness
Programs, and Lab 3 cr
HE 3342 Stress and Emotional Health 3 cr
HE 4410 Behavior Change Theory
and Application 3 cr
HE 4420 Health Program Planning
and Implementation 3 cr
HE 4435 Health Program Evaluation
and Research 3 cr

Plus the following School Health

Emphasis Courses:

HE 4430 Curriculum and Methods
in Health Education 3 cr
HE 4442 Environmental Health
and Health Education
Substance Abuse 3 cr
HE 4443 and Health Education
Human Sexuality 3 cr
and Health Education
TOTAL: 33 cr

Health Education Teaching Minor

Prerequisites:

Admission to Teacher Education Program
Admission to Health Education Program

Required Courses:

HE 2200 Promoting Wellness 3 cr
HE 2221 Introduction
to Health Education 3 cr
HE 3340, 3340L Fitness/Wellness Programs,
and Lab 3 cr
HE 3342 Stress and Emotional Health 3 cr
HE 4430 Curriculum and Methods
in Health Education 3 cr

Plus two of the following three courses:

HE 4442 Environmental Health
and Health Education 3 cr
HE 4443 Substance Abuse
and Health Education 3 cr
HE 4445 Human Sexuality
and Health Education 3 cr
TOTAL: 21 cr

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 1118 and 4418, plus an additional course). In addition, POLS 1101 fulfills Goal 11 and HIST 1118 fulfills Goal 9 of the General Education Requirements.

Category I: World Regions (9 credits, no more than 3 of which must be in HIST 1101 or HIST 1102)

HIST 1101 Foundations of Europe 3 cr
HIST 1102 Modern Europe 3 cr
HIST 2249 World Regional Geography 3 cr
HIST 2251 Latin America 3 cr
HIST 2252 East Asian History 3 cr
HIST 2254 Middle Eastern Civilization 3 cr
HIST 2255 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 2191 The Historian's Craft 3 cr
HIST 4491 Seminar 3 cr

Category III: Course for Teachers

HIST 4418 United States History
for Teachers 3 cr

Category IV: Upper Division U.S. History: 6 credits

Choose one 3000-level course and one 4000-level course from the Category IV list of upper division History elective courses in the Bachelor of Arts in History in the Arts and 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 Minor

Category I: World Regions: 6 credits, one course of which must be HIST 1101 or HIST 1102

HIST 1101	Foundations of Europe	3 cr
HIST 1102	Modern Europe	3 cr
HIST 2251	Latin American Civilization	3 cr
HIST 2252	East Asian History	3 cr
HIST 2254	Middle Eastern History	3 cr
HIST 2255	African History and Culture	3 cr

Category III: Course for Teachers

HIST 4418	U.S. History for Teachers	3 cr
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Category IV: Upper Division U.S. History: 6 credits

Choose one 3000-level course and one 4000-level course from the Category IV list of upper division History elective courses in the Bachelor of Arts in History in the Arts and 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 4433	Methods: Teaching English (highly recommended)	3 cr
MC 1119	Introduction to Mass Media	3 cr
MC 1121,1121L	Reporting and Newswriting, and Lab	4 cr
MC 2230,2230L	Introduction to Photography, and Lab	4 cr
MC 3325	Editing for Print Media	4 cr

Approved electives selected from:

MC 2270	Journalism History	3 cr
MC 2290	American Broadcasting	3 cr
MC 3350	Cable Television and New Media Technology	3 cr
MC 4440	Media Law and Ethics	3 cr
MC 4452	Mass Communication and Society	3 cr

Mathematics Major

CS/ENGR 1181	Computer Science and Programming I	3 cr
MATH 1170	Calculus I	4 cr
MATH 1175	Calculus II	4 cr
MATH 2240	Linear Algebra	3 cr
MATH 2275	Calculus III	4 cr
MATH 2287	Foundations of Mathematics	3 cr
MATH 3326	Elementary Analysis	3 cr
MATH 3343	Modern Geometry I	3 cr
MATH 3352	Introduction to Probability	3 cr
MATH 4407	Modern Algebra I	3 cr

And one of the following:

MATH 3327	Vector Analysis	3 cr
MATH 4408	Modern Algebra II	3 cr
MATH 4444	Modern Geometry II	3 cr

Mathematics Minor

CS/ENGR 1181	Computer Science and Programming I	3 cr
MATH 1170	Calculus I	4 cr
MATH 1175	Calculus II	4 cr
MATH 2240	Linear Algebra	3 cr

MATH 2275	Calculus III	4 cr
MATH 2287	Foundations of Mathematics	3 cr
MATH 3343	Modern Geometry I	3 cr
MATH 3352	Introduction to Probability	3 cr

And one of the following:

MATH 3326	Elementary Analysis	3 cr
MATH 4407	Modern Algebra I	3 cr
MATH 4444	Modern Geometry II	3 cr

Music Education

See Bachelor of Music Education degree program (K-12 certification) for requirements.

Physical Education Major

PE 2222	First Aid, CPR and Sport Safety	3 cr
PE 2223	Foundations of Physical Education and Sport	3 cr
PE 2235	Activity Performance Techniques I	3 cr
PE 2236	Activity Performance Techniques II	3 cr
PE 2237	Activity Performance Techniques III	3 cr
PE 2243	Anatomical Foundations of Human Activity	3 cr
PE 2281	Practical Outdoor Skills	1 cr
PE 3300	Movement Theory and Motor Development	3 cr
PE 3301, 3301L	Physiology of Exercise, and Lab	3 cr
PE 3302, 3302L	Biomechanics, and Lab	3 cr
PE 3322	Introduction to Sport Psychology	3 cr
PE 3357	Methods of Teaching Elementary Physical Education	3 cr
PE 3362	Tests and Measurements in Physical Education	3 cr
PE 3364	Introduction to Sport Law	3 cr
PE 3370	Care and Prevention of Athletic Injuries	3 cr
PE 4437	Methods of Teaching Secondary Physical Education	3 cr
PE 4475	Organization and Administration of Physical Education and Sport	3 cr
PE 4494	Adapted Physical Activity	3 cr
Aquatics (consult with advisor)		1 cr
		TOTAL: 53 cr

IN ADDITION: Candidate must present a current Red Cross First Aid and CPR Card to advisor at the time of graduation.

Physics Major

PHYS 1152-1153	Descriptive Astronomy and Laboratory	4 cr
PHYS 2211-2212*	Engineering Physics	8 cr
PHYS 2213-2214	Engineering Physics Lab	2 cr
PHYS 3301**	Modern Physics	3 cr
PHYS 4400	Practicum in Physical Science	2 cr
PHYS 4403	Advanced Modern Physics	3 cr
PHYS/GEOL 4410	Science in American Society	2 cr
Approved electives in Physics		8 cr
* Calculus is required for PHYS 2211-2212.		
** MATH 3360 is required for PHYS 3301		

Physics Minor

PHYS 1152-1153	Descriptive Astronomy and Laboratory	4 cr
PHYS 2211-2212*	Engineering Physics	8 cr
PHYS 2213-2214	Engineering Physics Lab	2 cr
PHYS 4400	Practicum in Physical Science	2 cr
PHYS/GEOL 4410	Science in American Society	2 cr
Approved electives in Physics		4 cr
* Two semesters of calculus are required for PHYS 2212.		

Political Science Major

Credits selected from core curriculum (excluding POLS 4460)		24 cr
HIST 1118	U.S. History and Culture	3 cr
HIST 4418	U.S. History for Teachers	3 cr

Political Science Minor

HIST 1118	U.S. History and Culture	3 cr
HIST 4418	U.S. History for Teachers	3 cr
POLS 1101	Introduction to American Government	3 cr
POLS 3313	Introduction to Political Philosophy	3 cr
POLS 3331	Comparative Politics: Framework for Analysis	3 cr
POLS 4403	The Presidency	3 cr
OR		
POLS 4404	The Legislative Process	3 cr

One course selected from:

POLS 4401	Political Parties and Interest Groups	3 cr
POLS 4427	Voting and Public Opinion	3 cr
POLS 4443	Constitutional Law	3 cr

Psychology Minor

PSYC 1101	Intro to General Psychology I	3 cr
PSYC 2227	Basic Statistics	3 cr
PSYC 2228	Introduction to the Theory of Measurement and Test Construction	3 cr
PSYC 3303	Experimental Psychology	4 cr
Approved electives in Psychology		9 cr

Russian Minor

RUSS 2201-2202	Intermediate Russian OR equivalent	8 cr
LANG 4437	The Teaching of Foreign Languages	3 cr
Approved electives in Russian		12 cr
(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 2201	Principles of Macroeconomics	3 cr
ECON 2202	Principles of Microeconomics	3 cr
HIST 1102	Modern Europe	3 cr
HIST 1118	U.S. History and Culture	3 cr
POLS 1101	Introduction to American Government	3 cr
PSYC 1101	Introduction to General Psychology	3 cr
SOC 1101	Introduction to Sociology	3 cr
Required Courses		
ECON 3323	Economic History	3 cr
EDUC 3336	Social Science Methods	3 cr
HIST 2249	World Regional Geography	3 cr
PSYC 3301	Abnormal Psychology	3 cr
SOC 2248	Social Diversity	3 cr
SOC 4462	Power, Class, and Prestige	3 cr

One course selected from:

POLS 3308	State and Local Government	3 cr
POLS 3326	Recent American Foreign Policy	3 cr
POLS 4401	Political Parties and Interest Groups	3 cr
POLS 4403	The Presidency	3 cr
POLS 4404	The Legislative Process	3 cr
POLS 4411	American Political Theory	3 cr
POLS 4443	Constitutional Law	3 cr

One course selected from:

HIST 4418	U.S. History for Teachers	3 cr
HIST 4423	Idaho History	3 cr

One course selected from:

PSYC 2227	Basic Statistics	3 cr
PSYC 3310	Applied Techniques	3 cr
SOC 2206	Sociological Methods	3 cr
SOC 2207	Social Statistics	3 cr

Social Science Minor*

ECON 2201	Principles of Macroeconomics	3 cr
ECON 2202	Principles of Microeconomics	3 cr
HIST 1102	Modern Europe	3 cr
HIST 1118	U.S. History and Culture	3 cr
HIST 2249	World Regional Geography	3 cr
POLS 1101	Introduction to American Government	3 cr
PSYC 1101	Introduction to General Psychology	3 cr
SOC 1101	Introduction to Sociology	3 cr
SOC 2248	Social Diversity	3 cr

One course in non-U.S. History or one course selected from:

ANTH 1100	General Anthropology	3 cr
ANTH 2237	Peoples and Cultures of Old World	3 cr
ANTH 2238	Peoples and Cultures of New World	3 cr

One course selected from:

POLS 3331	Comparative Politics: Framework for Analysis	3 cr
POLS 4432	Comparative Politics: Change and Political Order	3 cr
POLS 4433	Politics of Developing Nations	3 cr

One course selected from:

SOC 2248	Social Diversity	3 cr
SOC 4462	Power, Class, and Prestige	3 cr

**Must be accompanied by a major or minor in American Studies, Economics, Geography, History, Political Science, Psychology, or Sociology to meet state certification requirements.*

Sociology Major

SOC 1101	Introduction to Sociology	3 cr
SOC 1102	Social Problems	3 cr
SOC 2206	Sociological Methods	3 cr
SOC 2231	Juvenile Delinquency	3 cr
SOC 2248	Social Diversity	3 cr
SOC 3301	Classical Social Theory	3 cr
SOC 4462	Power, Class, and Prestige	3 cr

Electives selected from:

SOC 2207	Social Statistics	3 cr
SOC 3321	Families and American Society	3 cr
SOC 3335	Demography and Human Ecology	3 cr
SOC 4403	Contemporary Sociological Theory	3 cr
SOC 4408	Advanced Sociological Methods	3 cr
SOC 4413	Mind, Body and Society	3 cr
SOC 4431	Criminology	3 cr
SOC 4450	Developing Societies	3 cr

Sociology Minor

SOC 1101	Introduction to Sociology	3 cr
SOC 1102	Social Problems	3 cr
SOC 2206	Sociological Methods	3 cr
SOC 3301	Classical Social Theory	3 cr

Electives selected from:

SOC 2207	Social Statistics	3 cr
SOC 2231	Juvenile Delinquency	3 cr

SOC 2248	Social Diversity	3 cr
SOC 3321	Families and American Society	3 cr
SOC 3335	Demography and Human Ecology	3 cr
SOC 4403	Contemporary Sociological Theory	3 cr
SOC 4408	Advanced Sociological Methods	3 cr
SOC 4413	Mind, Body and Society	3 cr
SOC 4431	Criminology	3 cr
SOC 4450	Developing Societies	3 cr
SOC 4462	Power, Class, and Prestige	3 cr

Spanish Major

SPAN 3301-3302	Spanish Conversation and Composition and their prerequisites or equivalent high school courses	6 cr
LANG 4437	The Teaching of Foreign Languages	3 cr
Upper Division electives in Spanish (must be approved by the Foreign Languages Department and the College of Education).		12 cr

Spanish Minor

SPAN 2201-2202	Intermediate Spanish (OR equivalent)	8 cr
LANG 4437	The Teaching of Foreign Languages	3 cr
Approved electives in Spanish (must be approved by the Foreign Languages Department and the College of Education).		12 cr

Special Education Major

A teaching major in secondary education is also required. For initial certification in special education, SPED 4495, Special Education: Student Teaching Internship (7-14 cr) is required in addition to the 30 credits.

SPED 2270	Field Work in Special Education	2 cr
SPED 3330	The Exceptional Child	3 cr
SPED 3334	Classroom Behavior Management	3 cr
SPED 4423	Designing Instruction	3 cr
SPED 4424	Assess Procedures in Special Education	3 cr
SPED 4427	Precision Teaching	1 cr
SPED 4429	Strategies: Severe Disabilities	3 cr
SPED 4432	Direct Instruction Systems	3 cr
SPED 4438	Policies and Procedures in Special Education	3 cr
SPED 4446	Secondary Special Education	3 cr

Three credits of electives selected from the following:

PE 4494	Adapted Physical Activity	3 cr
PSYC 3332	Psychology of Adolescence	3 cr
PSYC 4445	Psychology of Learning	3 cr
SOC 2231	Juvenile Delinquency	3 cr
SPED 4426	Assessment: Severe Disabilities	3 cr
SPED 4440	Biomedical Aspects of Physical Disability	2 cr
SPED 4443	Autism	2 cr
SPED 4448	Pre-Practicum, Moderately Handicapped	1-3 cr
SPED 4480	Seminar in Special Education	1 cr
SPED 4491	Seminar	1-3 cr
SPED 4498	Advanced Field Work	1-3 cr

Special Education Minor

SPED 2270	Field Work in Special Education	2 cr
SPED 3330	The Exceptional Child	3 cr
SPED 3334	Classroom Behavior Management	3 cr
SPED 4423	Designing Instruction	3 cr
SPED 4424	Assess Procedures in Special Education	3 cr
SPED 4438	Policies and Procedures in Special Education	3 cr
SPED 4446	Secondary Special Education	3 cr

Theatre Major

COMM 2208	Group Communication	3 cr
COMM 3305	Argumentation and Debate	3 cr
THEA 1101	Appreciation of Drama	3 cr
THEA 1111	Stagecraft	3 cr
THEA 1118	Oral Interpretation	3 cr
THEA 2221	Stage Costume Construction	2 cr
OR		
THEA 3304	Theatre Management	2 cr
THEA 2251	Beginning Acting	3 cr
THEA 2252	Intermediate Acting	3 cr
THEA 3331	Materials and Methods for High School Speech Arts	3 cr
THEA 4455	Beginning Stage Direction	3 cr
THEA 4420	American Theatre History	3 cr

Theatre Minor

THEA 1101	Appreciation of Drama	3 cr
THEA 1111	Stagecraft I	3 cr
THEA 2251	Beginning Acting	3 cr
THEA 2252	Intermediate Acting	3 cr
THEA 4455	Beginning Stage Direction	3 cr

Electives selected from:

THEA 2209	Stage Lighting	2 cr
THEA 2214	Makeup	2 cr
THEA 2221	Stage Costume Construction	2 cr

Single Subject Teaching Majors**Art**

ART 1100	Survey of Art	3 cr
ART 1101-1102	History of Western Art I & II	6 cr
ART 1103-1104	Creative Process	6 cr
ART 1105	Drawing I	3 cr
ART 3334	Secondary School Art Methods	3 cr
Approved electives in Art		24 cr

Biological Sciences

BIOL 1101, 1101L	Biology I, and Lab	4 cr
BIOL 1102, 1102L	Biology II and Lab	4 cr
BIOL 3358	Genetics	3 cr
BIOL 2206	Cell Biology	3 cr
BIOL 2207	Cell Biology Laboratory	1 cr
BIOL 2209	General Ecology	4 cr
BIOL 2221	Introductory Microbiology	3 cr
BIOL 2223	Introductory Microbiology Laboratory	1 cr
BIOL 3310	Invertebrate Zoology	4 cr
BIOL 4412	Systematic Botany	4 cr
BIOL 4413	Biology Teaching Methods	3 cr
BIOL 4417	Organic Evolution	3 cr
BIOL 4491	Seminar	1 cr
BIOL 4492	Seminar	1 cr
MATH 1153	Introduction to Statistics	3 cr
OR		
MATH 1160	Applied Calculus	3 cr

Plus one of the following botany course options:

BIOL 2213, 2214	Spring and Fall Flora	4 cr
BIOL 4404	Plant Physiology	4 cr
BIOL 4405	Plant Anatomy	3 cr
BIOL 4406	Plant Diversity and Evolution	4 cr
BIOL 4408	Plant Ecology	3 cr

Plus upper division electives in biological science courses to bring the total credits in biological sciences to 45 semester hours.

Business Education

ACCT 2201	Principles of Accounting I	3 cr
BED 1102	Intermediate Keyboarding	3 cr
BED 3310	Microcomputers in Business Education	3 cr
BED 3320	Clerical Procedures	3 cr
BED 3330	Advanced Technology in Business Education	3 cr
BED 3332	Methods in Business Education	3 cr
CFS 4470	Consumer Economics	3 cr
ECON 2201	Principles of Macroeconomics	3 cr
ECON 2202	Principles of Microeconomics	3 cr
MGT 2261	Legal Environment of Organizations	3 cr
HRD 4401	Foundations of Professional-Technical Education	3 cr
HRD 4444	Career Guidance and Special Needs in Professional-Technical Education	3 cr
HRD 4468	Teaching Cooperative Education and School-to-Work	3 cr

Plus two elective courses approved by advisor 6 cr

Chemistry

CHEM 1111, 1111L	General Chemistry I, and Lab	5 cr
CHEM 1112, 1112L	General Chemistry II, and Lab	4 cr
CHEM 1114	Cations and Anions	1 cr
CHEM 2211	Inorganic Chemistry I	2 cr
CHEM 2232	Quantitative Analysis	2 cr
CHEM 2234	Quantitative Analysis Lab	2 cr
CHEM 3301	Organic Chemistry I	3 cr
CHEM 3302	Organic Chemistry II	3 cr
CHEM 3304	Organic Chemistry Lab II	1 cr
CHEM 3331	Instrumental Analysis	2 cr
CHEM 3334	Instrumental Analysis Lab	2 cr
CHEM 3351, 3352	Physical Chemistry	6 cr
CHEM 4400	Practicum in Physical Science	2 cr

Approved electives in Chemistry 7 cr

Communication and Rhetorical Studies

MC 1119	Introduction to Mass Media	3 cr
COMM 2208	Group Communication	3 cr
COMM 3305	Argumentation and Debate	3 cr
COMM 3355	Nonverbal Communication	3 cr
COMM 4437	Rhetorical Theory	3 cr
COMM 4441	Interpersonal Communication	3 cr
THEA 1111	Stagecraft I	3 cr
THEA 1118	Oral Interpretation	3 cr
THEA 2251	Beginning Acting	3 cr
THEA 3331	Materials and Methods for High School Speech Arts	3 cr

Electives in 4000-level Communication and Rhetorical Studies courses 9 cr

Electives (4 credits) selected from:

THEA 2209	Stage Lighting	2 cr
THEA 2214	Makeup	2 cr
THEA 2221	Stage Costume Construction	2 cr
THEA 3304	Theatre Management	2 cr

English

ENGL 2211	Introduction to Literary Analysis	3 cr
ENGL 2277 or 2278	Survey of American Literature I or II	3 cr
ENGL 2267 or 2268	Survey of English Literature I or II	3 cr
ENGL 2281	Introduction to Language Studies	3 cr
ENGL 3301	Writing About Literature	3 cr
ENGL 4433*	Methods: Teaching English	3 cr
ENGL 4491	Senior Seminar	3 cr

One of the following:

ENGL 4472	Proseminar in a Major Literary Figure	3 cr
ENGL 4473	Chaucer	3 cr
ENGL 4474	Milton	3 cr
ENGL 4476	Shakespeare	3 cr

One of the following (3 cr):

ENGL 4481	Studies in Grammar	3 cr
ENGL 4485	Linguistic Analysis	3 cr
ENGL 4486	Old English	3 cr

Plus one additional course from the following:

ENGL 2257 or 2258	Survey of World Literature I or II	3 cr
ENGL 2267 or 2268	Survey of British Literature I or II	3 cr
ENGL 2277 or 2278	Survey of American Literature I or II	3 cr

One genre course (3 cr):

Two additional upper-division historical period courses	6 cr
Approved electives (excluding lower division composition courses)	6 cr

* ENGL 4433 must be completed before Student Teaching Internship.

Family and Consumer Sciences Education

CFS 1100	Child and Family Studies Professions	1 cr
CFS 2203	The Young Child	3 cr
CFS 2209	Early Childhood Environments	3 cr
CFS 2229	Textile Products	3 cr
CFS 3314	Interior Design and Housing Perspectives	3 cr
CFS 3318	Leadership Issues Seminar	1 cr
CFS 3332	Programs in Family and Consumer Sciences	3 cr
CFS 4429	Social and Psychological Aspects of Clothing	3 cr
CFS 4431	Family Resource Management	3 cr
CFS 4435	Relationships Within Families	3 cr
CFS 4470	Consumer Economics	3 cr
EDUC 2204	Families, Communities, Culture	3 cr
NTD 1104	Foods	3 cr
NTD 2204	Meal Management	2 cr
NTD 1139	Consumer Nutrition	3 cr
OR		
NTD 2239	Nutrition	3 cr
CFS 4495	Student Teaching: Family and Consumer Sciences	7-14 cr

Professional-Technical Certification Requirements

HRD 4401	Foundations of Professional-Technical Education	3 cr
HRD 4444	Career Guidance and Special Needs in Professional-Technical Education	3 cr
HRD 4468	Teaching Cooperative Education and School-to-Work	3 cr

Recommended Electives

CFS 3321	Families and American Society	3 cr
CFS 3322	Building Positive Relationships	3 cr
CFS 4471	Advanced Consumer Economics	3 cr
CFS 4472	Teaching Consumer Economics	3 cr
CFS 4494	Partnerships with Professionals	3 or 6 cr
ECON 2202	Principles of Microeconomics	3 cr

Geology (at least 45 cr)

Required Courses:

GEOL 1100, 1100L	The Dynamic Earth, and Lab	4 cr
OR		
GEOL 1101	Physical Geology	3 cr
GEOL 1110*	Physical Geology for Scientists Lab	1 cr
GEOL 2202	Historical Geology	3 cr
GEOL 2210	Earth in Space and Time	3 cr
GEOL 3313	Earth Materials I	3 cr
GEOL 3315	Evolution of Earth's Surface	4 cr
GEOL 4400	Practicum in Geology Teaching	1 cr
GEOL 4406	Environmental Geology	3 cr
GEOL/PHYS 4410	Science in American Society	2 cr
GEOL 4421	Structural Geology	4 cr
GEOL 4431	Geobiology and the History of Life	4 cr
GEOL 4452	Sedimentation Stratigraphy	4 cr
GEOL/HIST/POLS 4471	Historical Geography of Idaho	4 cr

Plus electives from the following to reach a total of at least 45 credits:

GEOL 1122	Rocks and Stars	3 cr
GEOL 3314	Earth Materials II	3 cr
GEOL 4403	Principles of GIS	3 cr
GEOL 4405	Volcanology	3 cr
GEOL 4407	GPS Applications in Research	3 cr
GEOL 4409	Remote Sensing	3 cr
GEOL 4416	Global Environmental Change	3 cr
GEOL 4420	Principles of Geochemistry	3 cr
GEOL 4422	Planetary Geology for Teachers	3 cr
GEOL 4430	Principles of Hydrogeology	3 cr
GEOL 4450	Field Geology	6 cr
GEOL 4456	Geology of Southern Idaho	2 cr
GEOL 4458	Geology of North America	3 cr
GEOL 4491	Seminar	1 cr

Other geology electives may be applied as approved by advisor

* Note: Candidates must take GEOL 1110 even if they have taken the lab for GEOL 1100 or GEOL 1101 (GEOL 1100L or GEOL 1101L).

** (PREREQ or COREQ: CHEM 1111)

Health Education

Prerequisites:

Admission to Teacher Education Program
Admission to Health Education Program

Required Courses:

HE 2200	Promoting Wellness	3 cr
HE 2221	Introduction to Health Education	3 cr
HE 3340, 3340L	Fitness and Wellness Programs, and Lab	3 cr
HE 3342	Stress and Emotional Health	3 cr
HE 3383	Epidemiology	3 cr
HE 4410	Behavior Change Theory and Applications	3 cr
HE 4420	Program Planning and Implementation	3 cr
HE 4430	Curriculum and Methods in Health Education	3 cr
HE 4432	Community and Public Health	2 cr
HE 4435	Health Program Evaluation and Research	3 cr
HE 4442	Environmental Health and	

HE 4443	Health Education	3 cr
	Substance Abuse and Health Education	3 cr
HE 4445	Human Sexuality and Health Education	3 cr
HE 4473	Marketing for Health Care	3 cr
	Approved Electives	3 cr
	TOTAL:	45 cr

Mathematics

C S 1181	Introduction to Computer Science and Programming I	3 cr
	Calculus I	4 cr
MATH 1170	Calculus I	4 cr
MATH 1175	Calculus II	4 cr
MATH 2240	Linear Algebra	3 cr
MATH 2275	Calculus III	4 cr
MATH 2287	Foundations of Mathematics	3 cr
MATH 3326	Elementary Analysis	3 cr
MATH 3343	Modern Geometry I	3 cr
MATH 3352	Introduction to Probability	3 cr
MATH 4407	Modern Algebra I	3 cr
MATH 4408	Modern Algebra II	3 cr
	Approved upper division mathematics electives including at least 3 credits at the 4000-level	9 cr

Music Education

See Bachelor of Music Education degree program (below) for requirements.

Physical Education

PE 2222	First Aid, CPR and Sport Safety	3 cr
PE 2223	Foundations of Physical Education and Sport Activity	3 cr
PE 2235	Performance Techniques I	3 cr
	Activity	
PE 2236	Performance Techniques II	3 cr
	Activity	
PE 2237	Performance Techniques III	3 cr
	Activity	
PE 2243	Anatomical Foundations of Human Activity	3 cr
PE 2281	Practical Outdoor Skills	1 cr
PE 3300	Movement Theory and Motor Development	3 cr
PE 3301, 3301L	Physiology of Exercise, and Lab	3 cr
PE 3302, 3302L	Biomechanics, and Lab	3 cr
PE 3322	Introduction to Sport Psychology	3 cr
PE 3357	Methods of Teaching Elementary Physical Education	3 cr
PE 3362	Tests and Measurements in Physical Education	3 cr
PE 3364	Introduction to Sport Law	3 cr
PE 3370	Care and Prevention of Athletic Injuries	3 cr
PE 4437	Methods of Teaching Secondary Physical Education	3 cr
PE 4475	Organization and Administration of Physical Education and Sport	3 cr
PE 4494	Adapted Physical Activity	3 cr
	Aquatics (consult with advisor)	1 cr
	TOTAL:	53 cr

IN ADDITION: Candidate must present a current Red Cross First Aid and CPR Card to advisor at the time of graduation.

Social Sciences

Required prerequisite foundational courses which also satisfy the General Education requirements:

HIST 1101	Foundations of Europe	3 cr
HIST 1118	U.S. History and Culture	3 cr
POLS 1101	Introduction to American Government	3 cr
SOC 1101	Introduction to Sociology	3 cr

Required Courses

ECON 2201	Principles of Macroeconomics	3 cr
ECON 2202	Principles of Microeconomics	3 cr
ECON 3323	Economic History	3 cr
EDUC 3336	Social Science Methods	2 cr
CFS 4470	Consumer Economics	3 cr
	OR	
CFS 4471	Advanced Consumer Economics	3 cr
HIST 1102	Development of Western Civilization	3 cr
HIST 4418	U.S. History for Teachers	3 cr
HIST 4423	History of Idaho	3 cr
	OR	
HIST 4427	North American West	3 cr
SOC 2248	Social Diversity	3 cr
SOC 4462	Power, Class, and Prestige	3 cr

One course selected from:

ANTH 1100	General Anthropology	3 cr
ANTH 2237	Peoples and Cultures of Old World	3 cr
ANTH 2238	Peoples and Cultures of New World	3 cr

One course from:

POLS 3331	Comparative Politics: Framework for Analysis	3 cr
POLS 4432	Comparative Politics: Change and Political Order	3 cr
POLS 4433	Politics of Developing Nations	3 cr

One course from:

POLS 4401	Political Parties and Interest Groups	3 cr
POLS 3308	State and Local Government	3 cr
POLS 3326	Recent American Foreign Policy	3 cr
POLS 3342	American Legal Systems	3 cr
POLS 4403	The Presidency	3 cr
POLS 4404	The Legislative Process	3 cr
POLS 4411	American Political Theory	3 cr
POLS 4443	Constitutional Law	3 cr
	Additional credits from any POLS courses listed	3 cr

One course from the following:

SOC 2206	Sociological Methods	3 cr
SOC 2231	Juvenile Delinquency	3 cr
SOC 3301	Classical Social Theory	3 cr
SOC 3321	Families and American Society	3 cr
SOC 3330	Sociology of Health and Illness	3 cr
SOC 3335	Demography and Human Ecology	3 cr
SOC 4431	Criminology	3 cr
SOC 4450	Developing Societies	3 cr

Theatre

COMM 2208	Group Communication	3 cr
COMM 3305	Argumentation and Debate	3 cr
THEA 1101	Appreciation of Drama	3 cr
THEA 1111	Stagecraft I	3 cr
THEA 1112	Stagecraft II	3 cr
THEA 1118	Oral Interpretation	3 cr
THEA 2209	Stage Lighting	2 cr
THEA 2214	Makeup	2 cr
THEA 2221	Stage Costume Construction	2 cr
THEA 2251	Beginning Acting	3 cr
THEA 3304	Theatre Management	3 cr
THEA 3331	Materials and Methods for High School Speech Arts	3 cr
THEA 4455	Beginning Stage Direction	3 cr
	Upper division electives in Theatre	10 cr
	(All electives must be approved by candidate's advisor)	

Bachelor of Music Education

The Bachelor of Music Education is a nine-semester degree program designed to prepare candidates to obtain a teaching credential certificate to teach in the elementary and secondary schools. Complete information on admission to the music program, applied music, course sequencing, senior recital, large and small ensemble requirements, and other departmental policies may be found in the Music Department Student/Faculty Handbook, available upon request from the chair of the Music Department. Candidates should request advisors in the Music Department and in the College of Education.

Candidates must complete requirements and be fully admitted to teacher education before they can take courses in professional education numbered 3000 and above.

Candidates seeking the Bachelor of Music Education degree must complete 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 2201	Development and Individual Differences	3 cr
EDUC 2204	Families, Communities, Culture	3 cr
EDUC 3301	Inquiring, Thinking, Knowing	3 cr
EDUC 4401	Content Area Literacy	3 cr
SPED 3350	Creating Inclusive Classrooms	3 cr
EDUC 4492	Secondary Music Education: Student Teaching Internship	7-14 cr

Basic Music Requirements

MUSC 1103	Theory of Music I	3 cr
MUSC 1104	Theory of Music II	3 cr
MUSC 1107	Recital attendance (7 semesters)	0 cr
MUSC 1108	The World of Music (Goal 6)	4 cr
MUSC 1113	Aural Skills I	1 cr
MUSC 1114	Aural Skills II	1 cr
MUSC 1127	Class Voice	1 cr
	OR	
MUSC 1172	ISU Women's Choir	1 cr
	OR	
MUSC 1173	Concert Choir	1 cr
MUSC 2203	Theory of Music III	3 cr
MUSC 2204	Theory of Music IV	3 cr
MUSC 2213	Aural Skills III	1 cr
MUSC 2214	Aural Skills IV	1 cr
MUSC 2252	Introduction to Music Education	1 cr
MUSC 2255	Woodwind Methods	2 cr
MUSC 2256	Brass Methods	2 cr
MUSC 2258	Percussion Methods	2 cr
MUSC 2259	String Methods	2 cr
MUSC 3304	Music History I	3 cr
MUSC 3305	Music History II	3 cr
MUSC 3306	Music History III	3 cr
MUSC 3311	Form and Analysis	2 cr
MUSC 3312	Music Technology	2 cr
MUSC 3319	Choral Conducting	2 cr
MUSC 3320	Instrumental Conducting	2 cr
MUSC 3333	Elementary Music Methods	3 cr

MUSC 3334	Choral Music Methods	2 cr
MUSC 3335	Instrumental Music Methods	2 cr
MUSC 3338	Field Experience in Music Education	2 cr
MUSC 4401	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 1118-1119, MUSC 2218-2219, or MUSC 1120) 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 3000-level and above.

EDUC 1150 Educational Careers 1 credit. An introduction to careers in education via faculty presentations, guest speakers, collaborative learning activities, and assignments. The course is intended for candidates interested in exploring careers in education. F, S

EDUC 1170 Tutoring Reading 1 credit. Intensive reading strategies for the tutelage of children or adults. Interactive learning, lecture and demonstrations enable candidates to provide basic tutoring skills in literacy. Meets tutoring requirements for America Reads and other volunteer reading initiatives. Graded S/U. D

EDUC 2201 Development and Individual Differences 3 credits. Examination of human development/individual differences as a basis for reflecting on learning. Requires 16 hours of field experience in designated settings. PREREQ: 26 credits completed; 2.75 GPA; "C" or higher in ENGL 1101. F, S, Su

EDUC 2204 Families, Communities, Culture 3 credits. Examination of interactions among school, family, community, and culture as a basis for reflecting on the social contexts of learning. Requires 15 hours of field experience and travel to designated settings with diverse populations. F, S, Su

EDUC 2210 Peer Tutor Training 1 credit. Introduction to individual and small group tutoring with adult students. Emphasis on teaching

strategies, communication skills, ethics, and learning styles. Graded S/U. F, S

EDUC 2215 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 2235 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 3301 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 2201 and EDUC 2204. F, S, Su

EDUC 3302 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 3301. PREREQ: EDUC 2201, EDUC 2204, and admission to Teacher Education Program. F, S, Su

EDUC 3309 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 3301, EDUC 3302, or SPED 3350. F, S

EDUC 3310 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 3311 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 2215 or equivalent and admission to Teacher Education Program. F, S

EDUC 3321 Integrated Language Arts Methods 3 credits. Theory and application of teaching methods for word recognition strategies and integrated language arts skills in preK-elementary schools. Thirty-hour laboratory experience required. PREREQ: Admission to Teacher Education Program. F, S

EDUC 3322 Literature for Children across the Curriculum 3 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 3330 Elementary Math Methods 3 credits. Study of the subject matter of elementary math programs. Emphasis on teaching methods and materials. Field experience required. PRE-

REQ: MATH 2256, MATH 2257, and admission to Teacher Education Program. F, S

EDUC 3331 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 3334 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 3334. S

EDUC 3335 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 3336 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 3340 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 4401 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 3321. F, S, Su

EDUC 4420 Advanced and Compensatory Reading in the Content Areas 3 credits. Advanced training in developmental, remedial reading emphasizing independent strategies in study skills, critical/creative reading, metacognition. Content area application. PREREQ: Teaching experience or permission of instructor. D

EDUC 4424 Assessing Literacy Abilities 3 credits. Methods of assessment in literacy. Introduction to case study, formal and authentic measures of comprehension, vocabulary, study strategies, and writing. PREREQ: EDUC 4419 or permission of instructor. F, S, Su

EDUC 4426 Remediation of Literacy Problems 3 credits. Teaching strategies for remediating problems in literacy. Emphasis on planning,

implementing, and evaluating approaches and materials. PREREQ: EDUC 4424. S, Su

EDUC 4460 Foundations of ESL 3 credits. Study of ESL learner characteristics, historical, philosophical, cultural and linguistic foundations of ESL. Theories of language acquisition and those of leaders in the field will be included. AF

EDUC 4463 ESL Methods 3 credits. Language assessment, planning, and delivery for teaching limited English proficient K-12 students. Appropriate methods for students at various developmental stages of language acquisition will be studied. PREREQ: EDUC 4460 or permission of instructor. AS

EDUC 4464 ESL Practicum 1 credit. Field experience in settings with English-as-a-second-language learners. COREQ: EDUC 4463 or permission of instructor. AS

EDUC 4470 Manipulative Mathematics 3 credits. Study of methods for teaching mathematics through the modern math approach stressing manipulations. Consideration is given to diagnostic and remedial procedures for exceptional children. D

EDUC 4471 Interpersonal Communications 2 credits. Examination of basic concepts, principles, models, and theories of interpersonal communications and their application to educational settings. D

EDUC 4472 Dynamics of Instructional Groups 2 credits. Theory, practice, and research associated with dynamics of instructional groups are presented in an experiential format with emphasis on formation, structure, and process. D

EDUC 4481 Contemporary Issues in Education 1-3 credits. Examination and analysis of contemporary issues and trends in theories and practices in education. D

EDUC 4482 Contemporary Issues in Education 1-3 credits. Examination and analysis of contemporary issues and trends in theories and practices in education. D

EDUC 4483 Instructional Improvement for Teachers 1-3 credits. Study of ways by which teachers can improve instruction in their own classrooms with emphasis on the findings of research and experiences. D

EDUC 4485 Independent Problems in Education 1-3 credits. Individual work under staff guidance. Field and/or library research on specific educational problems of interest to majors in education. Experience in research composition. PREREQ: Permission of instructor. F, S, Su

EDUC 4491 Seminar 1-3 credits. Critical analysis of the literature in one or more areas of education. Limited enrollment. PREREQ: Permission of instructor. F, S, Su

EDUC 4492 Secondary Music Education: Student Teaching Internship 7-14 credits. Candidates assume instructional and management responsibilities in a supervised secondary school music setting. Includes weekly professional development seminar. PREREQ: Admission to Teacher Education Program, MUSC 3336, and/or approved application. Graded S/U. F, S

EDUC 4494 Elementary Education: Student Teaching Internship 7-14 credits. Candidates assume instructional and management responsibilities in supervised primary/elementary setting. Includes weekly professional development seminar. PREREQ: Admission to Teacher Education Program and/or approved application. Graded S/U. F, S

EDUC 4495 Junior High or Middle School: Student Teaching Internship 7-14 credits. Candidates assume instructional and management responsibilities in supervised middle/junior high school setting. Includes weekly professional development seminar. PREREQ: Admission to Teacher Education Program and/or approved application. Graded S/U. F, S

EDUC 4496 Secondary Education: Student Teaching Internship 7-14 credits. Candidates assume instructional and management responsibilities in supervised high school setting. Includes weekly professional development seminar. PREREQ: Admission to Teacher Education Program and/or approved application. Graded S/U. F, S

EDUC 4497 Professional Education Development 1-3 credits. A course for the practicing educator aimed at the development and improvement of educational skills. Various sections will have different subtitles. A maximum of 10 credits may be applied to fifth year programs. Graded S/U. D

Certification Only

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.

Certification Procedures

Candidates who successfully complete the teacher education program at Idaho State University are eligible to receive the Idaho State University recommendation for the Standard Elementary certificate, the Standard Secondary certificate, or the Standard Exceptional Child certificate. Candidates who anticipate teaching (certifying) in a state other than Idaho are advised to consult with the Dean's office as to reciprocity agreements and possible additional requirements related to the states in question.

The candidate will initiate the certification process by obtaining an application

for certification from the Dean's office. The application must be completed by the candidate and returned with the transcript order and check or money order for the certificate attached. After the end of the semester, the necessary paperwork will be processed and signed by the certification officer and forwarded to the State Department of Education Certification Office. The College of Education maintains a record of all individuals recommended for certification. The Dean is the official certification officer for the College of Education; all requests for certification must be processed and signed by the certification officer before the papers can be processed by any state Office of Certification.

Requirements for Elementary Education Standard Certification

1. Completion of the Professional Education Core:

EDUC 2201	Development and Individual Differences	3 cr
EDUC 2204	Families, Communities, Culture	3 cr
EDUC 3301	Inquiring, Thinking, Knowing	3 cr
EDUC 3302	Motivation and Management	3 cr
EDUC 3309	Instructional Planning, Delivery, and Assessment	6 cr
EDUC 3311	Instructional Technology	3 cr
SPED 3350	Creating Inclusive Classrooms	3 cr
EDUC 4494	Elementary Education: Student Teaching Internship	6-12 cr
2. Completion of the Elementary Education Professional Courses:

EDUC 2235	Introduction to Elementary Art Methods and Materials	1 cr
EDUC 3321	Integrated Language Arts Methods	3 cr
EDUC 3322	Literature for Children across the Curriculum	3 cr
EDUC 3330	Elementary Mathematics Methods	3 cr
EDUC 3331	Elementary Science Methods	3 cr
EDUC 3336	Social Science Methods	3 cr
EDUC 4419	Developmental Literacy	3 cr
HE 2211	Health Education Methods/Elementary	1 cr
MATH 2256	Structure of Arithmetic for Elementary School Teachers	3 cr
MATH 2257	Structure of Geometry and Probability for Elementary School Teachers	3 cr
MUSC 2233	Music Methods for Elementary School Teachers	2 cr
PE 3357	Methods of Teaching Elementary Physical Education	3 cr

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:

EDUC 2201	Development and Individual Differences	3 cr
EDUC 2204	Families, Communities, Culture	3 cr
EDUC 3301	Inquiring, Thinking, Knowing	3 cr
EDUC 3302	Motivation and Management	3 cr
EDUC 3309	Instructional Planning, Delivery, and Assessment	6 cr
EDUC 3311	Instructional Technology	3 cr
SPED 3350	Creating Inclusive Classrooms	3 cr
EDUC 4496	Secondary Education: Student Teaching Internship	7-14 cr

3. Completion of Secondary Education Required Course:

EDUC 4401	Content Area Literacy	3 cr
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Department of School Psychology, Literacy, and Special Education

Chair and Associate Professor: Squires
Professors: Hedeon, Nunn
Associate Professor: Klug
Assistant Professors: Helfrich, Jantz
Emerita: Stenson

The Department of School Psychology, Literacy, and Special Education administers the Special Education, Literacy, and School Psychology program areas (see the Graduate Catalog for all 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 3330 or SPED 3340 and earn a grade

of at least C. Candidates must also complete EDUC 2201 and EDUC 2204 with grades of C or better and pass performance assessments associated with these courses, have an overall GPA of at least 2.75, and be approved by a faculty screening committee following an admission interview.

Retention and Exit Requirements

In addition to meeting all of the retention and exit requirements of the College of Education, candidates must maintain at least a 3.0 GPA in the program courses. If a candidate earns two grades of C or lower in any program courses, the candidate will not be allowed to progress in the program and must reapply to the program. Candidates in the program must also maintain an overall GPA of 2.75 or better. If a candidate's overall GPA falls below 2.75 for two consecutive semesters, the candidate will not be allowed to progress in the program and must reapply to the program. (Special Education majors must also meet the requirements for general teacher education.)

Bachelor of Arts or Bachelor of Science in Human Exceptionality

The Bachelor of Arts or Bachelor of Science in Human Exceptionality can be completed either as a nonteaching major for candidates who are interested in working with people with disabilities outside the public school context or as a teaching major for candidates who wish to earn special education certification as K-12 Generalists. The course requirements are the same for the teaching and nonteaching majors. For candidates in the nonteaching major, practica are arranged in non-school settings.

Course Requirements for the B.A. or B.S. degree (in addition to University requirements):

EDUC 2201	Development and Individual Differences	3 cr
EDUC 2204	Families, Communities Culture	3 cr
EDUC 4401	Content Area Literacy	3 cr
PE 3300	Movement Therapy and Motor Development	3 cr

SPED 3312	Assistive Technology	3 cr
SPED 3330	The Exceptional Child	4 cr
SPED 3340	Principles of Behavior Management	3 cr
SPED 4423	Designing Instruction	3 cr
SPED 4424	Assessment Procedures in Special Education	3 cr
SPED 4429	Strategies: Severe Disabilities	3 cr
SPED 4430	Practicum in Individualized Instruction	3 cr
SPED 4432	Direct Instruction Systems	3 cr
SPED 4434	Language and Communication Methods in Special Education	3 cr
SPED 4435	Practicum in Small Group Instruction	3 cr
SPED 4436	Math Methods for Children with Disabilities	3 cr
SPED 4437	Practicum in Large Group Instruction	3 cr
SPED 4438	Policies and Procedures in Special Education	3 cr
SPED 4441	Classroom Behavior Management	3 cr
SPED 4443	Autism	3 cr
SPED 4446	Secondary Special Education	3 cr

Approved Electives (choose 9 credits)

EDUC 2215	Preparing to Teach with Technology	3 cr
SPED 4426	Assessment: Severe Disabilities	3 cr
SPED 4433	The Emotionally Disturbed Child	2 cr
SPED 4440	Biomedical Aspects of Physical Disability	3 cr
SPED 4448	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 3312 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 3330 The Exceptional Child 4 credits. Essential areas of exceptionality. Each area is studied on the dimensions of etiology, identification and labeling, characteristics, educational treatment, and prognosis for adjustment. Consideration also given toward structuring suitable educational programs applicable for each area and the basics of special education law. Includes 50-hour practicum. F

SPED 3340 Principles of Behavior Management 3 credits. Overview of basic principles of applied behavior analysis as it relates to educating children with disabilities. S

SPED 3350 Creating Inclusive Classrooms 3 credits. Curricula and methods for educating students with diverse abilities in 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 4423 Designing Instruction 3 credits. Introduction to instructional design principles and strategies for engaging students in higher order thinking and problem-solving. Emphasis on teaching complex concepts in reading comprehension, writing, mathematics and other academic subjects. PREREQ: Permission of instructor. F

SPED 4424 Assessment Procedures in Special Education 3 credits. Introductory study of diagnostic assessment techniques and the writing of individual educational and behavioral prescriptions and instructional objectives which are required to provide interventions suitable for remediating the learning problems in basic school curricula. PREREQ OR COREQ: SPED 3330 and SPED 4441 or permission of instructor. F

SPED 4426 Assessment: Severe Disabilities 3 credits. Selection, administration, and interpretation of criterion-referenced tools employed with severely disabled students. Emphasizes functional approach to assessment and evaluation of behavioral and instructional domains. PREREQ: Permission of instructor. AF

SPED 4429 Strategies: Severe Disabilities 3 credits. Consideration and evaluation of curriculum materials from behavioral, developmental, and ecological perspectives. Emphasizes functional approach to development and implementation of individualized intervention plans. PREREQ: Permission of instructor. AS

SPED 4430 Practicum in Individualized Instruction 3 credits. Requires 150 clock hours of field experience working with children with severe disabilities, developing and implementing individual instructional programs. PREREQ: SPED 3330 and SPED 3340. COREQ: SPED 4429. F

SPED 4432 Direct Instruction Systems 3 credits. Provides mastery level skills training in direct instruction systems for reading, math, and written language. Includes field work, adaptation of curricula to direct instruction model and evaluation. PREREQ: Permission of instructor. F, S

SPED 4433 The Emotionally Disturbed Child 2 credits. Survey of the causes of emotional disturbance in children and the effects upon the child's school performance and achievement. School programs and treatment considerations will be reviewed. F

SPED 4434 Language and Communication Methods in Special Education 3 credits. Strategies for teaching expressive and receptive language skills to children with disabilities. Focus on augmenting oral communication with both low and high technology applications, teaching expressive writing (e.g., spelling) skills using explicit instruction, and teaching receptive vocabulary using explicit instruction. PREREQ: SPED 3330 and SPED 3340. COREQ: SPED 4432, SPED 4433, and SPED 4446. S

SPED 4435 Practicum in Small Group Instruction 3 credits. Requires 150 clock hours of field experience working with children with disabilities, implementing small group instructional programs in reading and language, as well as developing transition plans for secondary students. PREREQ: SPED 3330 and SPED 3340. COREQ: SPED 4432, SPED 4433, and SPED 4446. S

SPED 4436 Math Methods for Children with Disabilities 3 credits. How to teach basic mathematical skills to children with disabilities and other at-risk learners. Emphasis on mathematical techniques having research supporting their effectiveness with children with disabilities. Prospective teachers are taught how to teach, monitor, assess, and remediate various mathematical skills. PREREQ: SPED 3330 and SPED 3340. COREQ: SPED 4423, SPED 4435, and SPED 4440. F

SPED 4437 Practicum in Large Group Instruction 3 credits. Requires 150 clock hours of field experience working with children with disabilities implementing large group instructional programs in mathematics and other content areas, with special emphasis on managing student behavior using positive behavior supports. PREREQ: SPED 3330 and SPED 3340. COREQ: SPED 4423, SPED 4435, and SPED 4440. F

SPED 4438 Policies and Procedures in Special Education 3 credits. Consideration of legal background, current court rulings, professional responsibilities, and models for consultation and collaboration in a variety of educational settings. Includes the IEP process. PREREQ: Permission of instructor. S

SPED 4440 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 4441 Classroom Behavior Management 3 credits. Emphasizes the practical application of reinforcement learning models and theory to classroom and other settings. PREREQ OR COREQ: SPED 3330. COREQ: SPED 4423, SPED 4435, and SPED 4436. F

SPED 4443 Autism 3 credits. An overview of autism and implications for educational planning. Teaching strategies that are successful in working with individuals who have autism will be reviewed. AF

SPED 4446 Secondary Special Education 3 credits. Teaching methodology focusing on needs of secondary and adult special education students. Topics include functional academics, transition, independent living, social skills, professional-technical training, employment options, and accessing community resources. PREREQ: SPED 3330 and SPED 3340. COREQ: SPED 4432, SPED 4433, and SPED 4434. S

SPED 4448 Pre-Practicum, Moderately Handicapped 1-3 credits. Supervised practical work with moderately handicapped children in a clinical setting. PREREQ: Permission of instructor. F, S

SPED 4462 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 4480 Seminar in Special Education 1 credit. Current topics in the field of special education presented by departmental faculty and guest lecturers. May be repeated for up to 2 credits. Graded S/U. F, S

SPED 4481 Advanced Issues in Behavior Disorders 2 credits. Educational organization, collaboration and consultation skills necessary to provide cooperation between the schools and other community agencies that provide integrated service for this exceptionality. PREREQ: Permission of instructor. AF

SPED 4485 Independent Problems 1-3 credits. Individual work under staff guidance. Field and/or library research on specific educational problems of interest to majors in education. Experience in research composition. May be repeated. Graded S/U. PREREQ: Permission of instructor. D

SPED 4490 Consultation and Collaboration 3 credits. This course will provide candidates with strategies for working with paraeducators and other professional colleagues in educational settings. The focus of the course will be on providing training and feedback to paraeducators and effective strategies for teaming with other educators. COREQ: SPED 4498. S

SPED 4491 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 4495 Special Education: Student Teaching Internship 7-14 credits. Candidates assume instructional and management responsibilities in a supervised K-12 resource room or special education setting. Full semester for 14 credits; half semester 7 credits. PREREQ: Special Education Methods Core and approved application. F, S

SPED 4498 Advanced Field Work 1-3 credits. Orientation, observation, planning and implementation of special education instruction in a special education setting in the public schools. PREREQ: Permission of instructor. D

Department of Sport Science and Physical Education

Chair and Professor: Lester

Professor: Lyons

Associate Professors: Appleby, Fitzpatrick

Assistant Professors: Fauré, Gauthier

Associate Lecturer: Cordingley

Emeritus Faculty: Noakes, Watters

The mission of the Department of Sport Science and Physical Education at Idaho State University is to provide candidates with the intellectual and physical skills necessary to maximize their potential. The study of the physical education discipline is an important part of the curriculum at Idaho State University; it strives to fulfill the University mission as well as the College of Education's mission in the enhancement of learning, lifelong development, and educational leadership. The study of physical education encourages candidates to respect human dignity, to be critical thinkers, and to be effective communicators. It provides an opportunity for the individual to make decisions regarding lifestyle and health choices enhancing self-direction and self-esteem. Physical education develops both the mental and physical discipline to provide opportunities for mental, social, emotional, spiritual, and personal development while interacting in a university environment.

The Idaho State University Department of Sport Science and Physical Education is committed to providing an academic program in which men and women can discover, experience, and reflect upon the study of movement. Curricula are designed to challenge candidates in the theory and to provide opportunity for practical experiences. Candidates are expected to become both advocates for and contributors to the discipline on personal and professional levels. Faculty members are committed to excellence in teaching, concerns for the needs of candidates, service to the community, and expertise in their discipline.

Majors in Physical Education receive preparation for a number of careers. The candidate majoring in Physical Education may select from four emphasis areas including exercise science, outdoor edu-

cation, sport management, and teaching. Majors receive preparation for graduate work in areas such as physical education, physical therapy, exercise science, outdoor education, and athletic administration.

The Department of Sport Science and Physical Education also offers three minor areas of study to facilitate professional and career development needed by women and men to succeed in a changing world. Candidates may choose to minor in coaching, outdoor education, or sport management.

The Department of Sport Science and Physical Education is committed to make the sport and leisure activity program for the major and non-major an experience serving the needs and interests of participants. The activity program is designed to develop participants' skills in lifetime activities and to increase participants' fitness level.

The Department of Sport Science and Physical Education also offers a Master of Physical Education degree with an emphasis in Athletic Administration. The program is designed to facilitate the intellectual and practical knowledge necessary to enter the field of sport management or administration upon graduation.

Bachelor of Arts or Bachelor of Science in Physical Education

Physical Education Standards

The Physical Education Learning Goals are aligned with 2 sets of standards: The Idaho State University College of Education Core Standards (described previously), and the Content Standards in Physical Education of the National Association for Sport and Physical Education (NASPE).

Admission to Program

Admission to a major in physical education or any of the minors available in the department should be done as early as possible during the candidate's career. Admission to the PE major is dependent upon completion of PE 2223 with a grade of C (2.0) or better, and a minimum cumulative GPA of 2.5.

1. Completion of 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 (PE 2223).
6. A student must meet with an advisor to verify eligibility for admission to the Sport Science and Physical Education Department.

Candidates must make formal application for full admission to the Sport Science and Physical Education program. Application forms are available in the department office. Candidates may not register without advisor's approval for upper division courses until admittance to the program is achieved.

Denial of Admission to the Sport Science and Physical Education Major Program

Candidates who have been denied full admission to the Sport Science and Physical Education program may reapply; however, they must meet the standards for admission at the time of their reapplication to attain full admission.

Graduation Requirements

In order to graduate from the Sport Science and Physical Education Program as a major, the candidate must achieve the following in addition to completing the course requirements :*

1. Minimum grade of "C" (2.0) in professional courses.
2. Minimum overall cumulative GPA of 2.7.
3. Minimum GPA of 3.00 in the major.
4. Completion of candidate portfolio, with review by advisor.
5. Exit interview with advisor.
6. Current Red Cross First Aid and CPR Card

* Transfer candidates and change of major/minor candidates will be allowed to enroll in 6 credits of upper division courses while completing admission requirements.

Physical Education Core (12 credits)

Physical Education majors in all emphasis areas must complete a common core. The core consists of the following courses:

PE 2222	First Aid, CPR and Sport Safety	3 cr
PE 2223	Foundations of Physical Education and Sport	3 cr
PE 2243	Anatomical Foundations of Human Activity	3 cr
PE 4454	Senior Capstone	3 cr

Physical Education Emphasis Areas:

Exercise Science
Outdoor Education
Physical Education Teaching
Sport Management

Exercise Science Emphasis – 80 credits, plus Core

Objective #1: To develop foundational knowledge in the basic sciences (43 credits)

(Note: PE 2243 requirement in SSPE Core is satisfied by BIOL 3301, 3302, and labs.)

Biological Cognate: 12 credits		
BIOL 3301, 3301L	Anatomy and Physiology, and Lab	4 cr
BIOL 3302, 3302L	Anatomy and Physiology, and Lab	4 cr
BIOL 4460	Neuroscience	4 cr

Chemistry Cognate: 9 credits		
CHEM 1111, 1111L	General Chemistry I, and Lab	5 cr
CHEM 1112, 1112L	General Chemistry II, and Lab	4 cr

Physics Cognate: 8 credits		
PHYS 1111	General Physics I	3 cr
PHYS 1112	General Physics II	3 cr
PHYS 1113	General Physics I Lab	1 cr
PHYS 1114	General Physics II Lab	1 cr

Math Cognate: 11 credits		
MATH 1143	College Algebra*	3 cr
MATH 1144	Trigonometry*	2 cr
MATH 1153	Introduction to Statistics	3 cr
MATH 1160	Applied Calculus	3 cr
*MATH 1147 Precalculus (5 cr) will substitute for MATH 1143 and 1144.		

Psychology Cognate: 3 credits		
PSYC 1101	Introduction to General Psychology	3 cr

Objective #2: To develop specialized knowledge in human movement activities (15 credits)

PE 3300, 3301L	Movement Theory and Motor Development, and Lab	3 cr
PE 3301, 3301L	Physiology of Exercise and Lab	3 cr
PE 3302, 3302L	Biomechanics and Lab	3 cr
PE 3322	Introduction to Sport Psychology	3 cr
PE 4494	Adapted Physical Activity	3 cr

Objective #3: To develop skills assessing and analyzing human movement activities (12 credits)

PE 3370	Care and Prevention of Athletic Injuries	3 cr
PE 4482	Mechanical Analysis of Human Movement	3 cr
PE 4484	Exercise Assessment and Prescription	3 cr
PE 4490	Practicum in Exercise Science	3 cr

Objective #4: To develop knowledge and skills in cognate exercise disciplines (10 credits)

NTD 2239	Nutrition	3 cr
NTD 4439	Sports Nutrition	3 cr
Electives, chosen with advisor approval		4 cr

Recommended Electives:

HE 3340	Fitness and Wellness Programs	3 cr
PSCI 2205	Drugs in Society	2 cr

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 2222) core requirements are satisfied by PE 2285 Wilderness First Aid or PE 4441 Wilderness First Responder included below.

Objective #2: To develop leadership and teaching skills.

Criteria for courses: Courses that fulfill this objective (a) introduce the concepts of leadership in the outdoor environment, (b) explore the literature of the outdoor field, and (c) provide practical experience in leadership and teaching.

Leadership and Teaching Component (8 credits)

PE 3386	Outdoor Leadership	2 cr
PE 4440	Survey of Outdoor Education Literature	2 cr
PE 4445	Methods of Teaching Outdoor Activities and Practicum	3-4 cr

Objective #3: To conduct outdoor activities safely in the outdoors with minimal impact on the environment.

Criteria for courses: Courses that fulfill this objective (a) stress safe use of the outdoors, (b) provide the knowledge and experience to respond to outdoor emergencies, (c) examine ways in which impact on the environment can be minimized.

Outdoor Education Safety Component (7 credits)

Any of the following may be selected, but Outdoor Risk Management, Leave No Trace Trainer, and first aid certification

(Wilderness First Aid, Wilderness First Responder or Emergency Medical Technician) are required.

PE 2271	Winter Survival Skills	1 cr
PE 2272	Wilderness Survival Skills	1 cr
PE 2282	Map, Compass and Backcountry Navigation	1 cr
PE 2283	Leave No Trace Trainer	1 cr
PE 2285	Wilderness First Aid	1 cr
PE 2286	Avalanche and Winter Sports Safety	1 cr
PE 3381	River Safety and Swiftwater Rescue	1 cr
PE 3383	Advanced Rock Climbing and Climbing Safety	2 cr
PE 3384	Outdoor Risk Management and Liability	2 cr
PE 4441	Wilderness First Responder Certification	3 cr

Candidates who at the time of graduation possess a current certificate in Emergency Medical Technician (EMT), or Wilderness First Responder may apply three (3) credits to this component.

Objective #4: To understand and interpret the natural environment.

Criteria for courses: Courses that fulfill this objective (a) provide a scientific foundation of the understanding of the outdoor world and natural systems; (b) develop knowledge and the requisite skills to identify plants, animals, rocks, minerals, landforms, and other natural objects.

Natural History Component (8 credits)

BIOL 1101,1101L	Biology I, and Lab	4 cr
BIOL 1102,1102L	Biology II, and Lab	4 cr
BIOL 2209	General Ecology	4 cr
BIOL 2213	Fall Flora	2 cr
BIOL 2214	Spring Flora	2 cr
BIOL 3337	Conservation of Natural Resources	3 cr
BIOL 4426	Herpetology	3 cr
BIOL 4427	Ichthyology	3 cr
BIOL 4438	Ornithology	3 cr
BIOL 4441	Mammalogy	3 cr
BIOL 4489	Field Ecology	3 cr
GEO 1100,1100L	The Dynamic Earth, and Lab	4 cr
GEO 1109	Physical Geology for Scientists	3 cr
GEO 1110	Physical Geology for Scientists Laboratory	1 cr
GEO 2201	Rocks, Rails, and Trails	1 cr
GEO 2210	Earth in Space and Time	2 cr
GEO 4456	Geology of Idaho	2 cr
GEO 4491	Seminar	1 cr
PHYS 1152	Descriptive Astronomy	3 cr
PHYS 1153	Descriptive Astronomy	1 cr
PHYS 3325	Introduction to Weather and Climate	3 cr

Objective #5: To cultivate and refine skills in a variety of outdoor activities.

Criteria for courses: Courses that fulfill this objective (a) emphasize an understanding of the techniques, equipment and safety procedures associated with specific outdoor activities, and (b) provide opportunities to learn, practice and refine outdoor skills.

Experiential Skills Component (Minimum of 8 credits)

Courses selected must be different from those used to fulfill the requirements of the Outdoor Education Safety Component. (Note: Only 8 PEAC credits can be counted towards graduation requirement)

PEAC 1101	Adaptive Snow Skiing	1 cr
PEAC 1108	Instructor Training of Adaptive Snowskiing	1 cr
PEAC 1163	Backpacking	1 cr
PEAC 1165	Backcountry GPS Navigation	1 cr
PEAC 1166	Canoeing	1 cr
PEAC 1167	Kayak Touring	1 cr
PEAC 1175A	Beginning Kayaking	1 cr
PEAC 1176A	Beginning Rock Climbing	1 cr
PEAC 1177A	Beginning Cross-Country Skiing	1 cr
PEAC 1178A	Beginning Telemark Cross-Country Skiing	1 cr
PEAC 1178B	Intermediate Telemark Cross-Country Skiing	1 cr
PEAC 1181	Bicycling	1 cr
PEAC 1182C	Advanced Dutch Oven Cooking	1 cr
PEAC 1185	Basic Mountaineering	1 cr
PEAC 1186B	Intermediate Fly Fishing	1 cr
PEAC 1189	Beginning Gym Climbing	1 cr
PEAC 1191B	Intermediate Horsemanship	1 cr
PEAC 1194	Caving Workshop	1 cr
PE 2200	Challenge Course Facilitator	2 cr
PE 2271	Winter Survival Skills	1 cr
PE 2272	Wilderness Survival Skills	1 cr
PE 2280	Winter Camping and Backcountry Travel	1 cr
PE 2281	Practical Outdoor Skills	1 cr
PE 2282	Map, Compass and Backcountry Navigation	1 cr
PE 2284	Intermediate Kayaking and Whitewater Safety	1 cr
PE 2286	Avalanche and Winter Sports Safety	1 cr
PE 2287	Snowboard Instructor Training	1 cr
PE 2288	Ski Instructor Training	1 cr
PE 3381	River Safety and Swiftwater Rescue	1 cr
PE 3383	Advanced Rock Climbing and Climbing Safety	2 cr
PE 4491	Physical Education Workshop*	1-3 cr

*When workshop relates to outdoor education, i.e. Canoe Workshop (1 credit), Whitewater Rafting Workshop (1 credit), Backpacking Workshop (1 credit), Advanced Kayaking-Summer Field Experience (1 credit), Beginning Rock Climbing-Summer Field Experience (1 credit), Advanced Rock Climbing-Summer Field Experience (1 credit).

Objective #6: To foster a well-rounded educational background with an emphasis on subjects with historic and traditional importance in the outdoor education field.

Criteria for courses: Courses that fulfill this objective (a) emphasize the expression of ideas through the written and spoken word, (b) provide experience in creative processes, (c) explore environmental issues through the political process.

Electives (Minimum of 6 credits)

Courses may include those listed in the Natural History Component and/or the following:

ENGL 2206	Creative Writing Workshop	3 cr
ENGL 3307	Professional and Technical Writing	3 cr
ENGL 3308	Business Communications	3 cr
COMM 2201	Business and Professional Speaking	3 cr
COMM 2208	Group Communication	3 cr
MC 2230, 2230L	Introduction to Photography, and Lab	4 cr
MC 2241	Introduction to Public Relations	3 cr
MC 2260	Photo and Graphic Workshop	3 cr
MC 3327, 3327L	Magazine Article Writing and Lab	3 cr
MC 4470	Communication through Web Design	3 cr
PE 4493	Introduction to Sport Sociology	3 cr
POLS 4455	Environmental Politics and Polic	3 cr
POLS 4457	Grantwriting	3 cr
MGT 3312	Individual and Organizational Behavior	3 cr
MGT 4441	Organization Behavior	3 cr

Physical Education Teaching Emphasis (K-12 certification) – 44 credits, plus 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 PE 4454 Senior Capstone core course.

In addition to completing departmental major requirements, candidates must make formal application and complete an interview for admission to the Teacher Education Program. See all requirements in the Teacher Education section of the College of Education 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

PE 2222	First Aid, CPR and Sport Safety	3 cr
PE 2223	Foundations of Physical Education and Sport	3 cr
PE 2243	Anatomical Foundations of Human Activity	3 cr

Objective #1: To develop teaching skills in a variety of areas in physical activities, athletics, and creative movement (20 credits)

Skills Component: 10 credits

PE 2235	Activity Performance Techniques I	3 cr
PE 2236	Activity Performance Techniques II	3 cr
PE 2237	Activity Performance Techniques III	3 cr
One (1) aquatics course		1 cr

Methods Component: 10 credits

PE 2281	Practical Outdoor Skills	1 cr
PE 3357	Methods of Teaching Elementary Physical Education	3 cr
PE 3370	Care and Prevention of Athletic Injuries	3 cr
PE 4437	Methods of Teaching Secondary Physical Education	3 cr

Objective #2: To acquire knowledge in the basic foundations of human activity (15 credits)

PE 3300	Movement Theory and Motor Development	3 cr
PE 3301, 3301L	Physiology of Exercise, and Lab	3 cr
PE 3302, 3302L	Biomechanics, and Lab	3 cr
PE 3322	Introduction to Sport Psychology	3 cr
PE 4494	Adapted Physical Activity	3 cr

Objective #3: To understand and develop skills required for teaching physical education (9 credits)

PE 3362	Tests and Measurements in Physical Education	3 cr
PE 3364	Introduction to Sport Law	3 cr
PE 4475	Organization and Administration of Physical Education and Sport	3 cr

Objective #4: To understand and develop general pedagogical skills and teacher effectiveness

Required Education Foundation Courses

Refer to College of Education Teacher Education Admission standards and Elementary and/or Secondary Teacher Education course Requirements earlier in this Catalog.

Sport Management Emphasis – 43 credits, plus Core

Objective #1: To understand and appreciate the physical education and sport setting.

Criteria for courses: Courses that fulfill this objective (a) introduce the concepts of sport and motor development, and (b) explore administrative duties in the athletic setting. **Thirteen (13) credits required.**

Choose 2 of the following (6 credits)

PE 2235	Activity Performance Techniques I	3 cr
PE 2236	Activity Performance Techniques II	3 cr
PE 2237	Activity Performance Techniques III	3 cr

Additional Coursework (7 credits):

PE 2281	Practical Outdoor Skills	1 cr
PE 3322	Introduction to Sport Psychology	3 cr
Approved Electives		3 cr

Possible Elective Choices:

PE 3300	Movement Theory and Motor Development	3 cr
PE 3301, 3301L	Physiology of Exercise and Lab	3 cr
PE 3302, 3302L	Biomechanics and Lab	3 cr
PE 3357	Methods of Teaching Elementary Physical Education	3 cr
PE 3362	Tests and Measurements in Physical Education	3 cr
PE 3370	Care and Prevention of Athletic Injuries	3 cr
PE 4437	Methods of Teaching Secondary Physical Education	3 cr
PE 4493	Introduction to Sport Sociology	3 cr
PE 4494	Adapted Physical Activity	3 cr

Objective #2: To develop leadership and management skills.

Criteria for courses: Courses that fulfill this objective (a) introduce the concepts of leadership in the sport setting, and (b) explore administrative duties in the athletic setting. **Twelve (12) credits required.**

PE 3364	Introduction to Sport Law	3 cr
PE 4473	Facilities Planning and Design	3 cr
PE 4475	Organization and Administration of Physical Education and Sport	3 cr
Approved Electives		3 cr

Possible Elective Choices:

PE 3386	Outdoor Leadership	2 cr
POLS 4458	Public Administration Ethics	3 cr

COMM 2201	Business and Professional Speaking	3 cr
COMM 2208	Group Communication	3 cr
COMM 2254	Organizational Communication	3 cr
COMM 3355	Nonverbal Communication	3 cr
COMM 4408	Communication Theory	3 cr
COMM 4452	Conflict Management	3 cr
COMM 4454	Management Communication	3 cr

Objective #3: To understand and interpret the business setting.

Criteria for courses: Courses that fulfill this objective (a) provide a business perspective of the understanding of the management setting; (b) provide understanding of human resource management; and (c) provide understanding of legal implications in running a business. **Fifteen (15) credits required.**

ACCT 2201	Principles of Accounting I	3 cr
MGT 3312	Individual and Organizational Behavior	3 cr
MGT 4473	Human Resource Management	3 cr
PE 3366	Sport Marketing	3 cr
Approved Electives		3 cr

Possible Elective Choices:

ACCT 2202	Principles of Accounting II	3 cr
CIS 3300	Information Management Systems	3 cr
ECON 2201	Principles of Macroeconomics	3 cr
ECON 2202	Principles of Microeconomics	3 cr
FIN 3315	Corporate Financial Management	3 cr
MGT 2216	Business Statistics	3 cr
MGT 2217	Advanced Business Statistics	3 cr
MGT 2261	Legal Environment of Organizations	3 cr
MKTG 3325	Basic Marketing Management	3 cr
MGT 4441	Organizational Behavior	3 cr
MKTG 3327	Consumer Behavior	3 cr
MC 2241	Introduction to Public Relations	3 cr
POLS 4409	Community and Regional Planning	3 cr
POLS 4441	Administrative Law	3 cr
POLS 4442	Constitutional Law	3 cr
POLS 4443	Constitutional Law	3 cr
POLS 4451	Organizational Theory and Bureaucratic Structure	3 cr
POLS 4452	Financial Administration and Budgeting	3 cr
POLS 4454	Public Personnel Administration	3 cr
POLS 4456	Labor Organization	3 cr
POLS 4457	Grantwriting	3 cr

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 4490	Sport Management Practicum	3 cr
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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):

PE 3301, 3301L	Physiology of Exercise, and Lab	3 cr
PE 3302, 3302L	Biomechanics, and Lab	3 cr
PE 3322	Introduction to Sport Psychology	3 cr
PE 3370	Care and Prevention of Athletic Injuries	3 cr
PE 4480	Coaching Problems	3 cr

Elective Courses (11 credits):

Select eight (8) credits:

PE 3312	Practical Applications of Coaching Baseball/Softball	2 cr
PE 3313	Practical Applications of Coaching Basketball	2 cr
PE 3314	Practical Applications of Coaching Football	2 cr
PE 3315	Practical Applications of Coaching Soccer	2 cr
PE 3316	Practical Applications of Coaching Tennis	2 cr
PE 3317	Practical Applications of Coaching Track and Field	2 cr
PE 3318	Practical Applications of Coaching Volleyball	2 cr
PE 3319	Practical Applications of Coaching Wrestling	2 cr

Select three (3) credits:

PE 3300	Movement Theory and Motor Development	3 cr
PE 4475	Organization and Administration of Physical Education and Sport	3 cr
PE 4493	Introduction to Sport Sociology	3 cr

Minor in Outdoor Education

Outdoor Education Standards

The Outdoor Education minor is modeled around 4 goals that were developed after an extensive review of several other Outdoor Education program curricula. The Association of Outdoor Recreation and Education (AORE) recommends that individual programs establish goals that are relevant to their specific programs. The four component areas in the Outdoor Education minor include Leadership and Teaching, Outdoor Education Safety, Natural History, and Experiential Skills.

Candidates seeking a minor in outdoor education must complete a total of 21 credits from the following four components:

Leadership and Teaching Component (7 credits)

PE 3386	Outdoor Leadership	2 cr
PE 4440	Survey of Outdoor Education Literature	2 cr
PE 4445	Methods of Teaching Outdoor Activities and Practicum	3 cr

Outdoor Education Safety Component (5 credits)

Required Course

PE 2283	Leave No Trace Trainer	1 cr
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Electives

Choose a minimum of four (4) additional credits from the following list. One of the courses (and no more than one course) must be wilderness first aid related.

PE 2271	Winter Survival Skills	1 cr
PE 2272	Wilderness Survival Skills	1 cr
PE 2282	Map, Compass, and Backcountry Navigation	1 cr
PE 2285	Wilderness First Aid	1 cr
PE 2286	Avalanche and Winter Sports Safety	1 cr
PE 3381	River Safety and Swiftwater Rescue	1 cr
PE 3383	Advanced Rock Climbing and Climbing Safety	2 cr
PE 4441	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 1101, 1101L	Biology I, and Lab	4 cr
BIOL 1102, 1102L	Biology II, and Lab	4 cr
BIOL 2209	General Ecology	4 cr
BIOL 2213	Fall Flora	2 cr
BIOL 2214	Spring Flora	2 cr
BIOL 3337	Conservation of Natural Resources	3 cr
BIOL 4426	Herpetology	3 cr
BIOL 4427	Ichthyology	3 cr
BIOL 4438	Ornithology	3 cr
BIOL 4441	Mammalogy	3 cr
GEOL 1100, 1100L	The Dynamic Earth, and Lab	4 cr
GEOL 1101, 1101L	Physical Geology, and Lab	4 cr
GEOL 1110	Physical Geology for Scientists Laboratory	1 cr
GEOL 2201	Rocks, Rails, and Trails	1 cr
GEOL 2210	Rocks, Minerals, Fossils and Maps	2 cr
GEOL 4491	Seminar	1 cr

Experiential Skills Component

Minimum of five (5) credits required. Courses selected must be different from those used to fulfill the requirements of the Outdoor Education Safety Component.

PE 2200	Challenge Course Facilitator	2 cr
PE 2271	Winter Survival Skills	1 cr
PE 2272	Wilderness Survival Skills	1 cr
PE 2280	Winter Camping and Backcountry Travel	1 cr
PE 2281	Practical Outdoor Skills	1 cr
PE 2282	Map, Compass and Backcountry Navigation	1 cr
PE 2284	Intermediate Kayaking and Whitewater Safety	1 cr
PE 2286	Avalanche and Winter Sports Safety	1 cr
PE 2287	Snowboard Instructor Training	1 cr
PE 2288	Ski Instructor Training	1 cr

PE 3381	River Safety and Swiftwater Rescue	1 cr
PE 3383	Advanced Rock Climbing and Climbing Safety	2 cr
PE 4491	Physical Education Workshop*	1-3 cr
PEAC 1101	Adaptive Snow Skiing	1 cr
PEAC 1108	Instructor Training of Adapted Snowskiing	1 cr
PEAC 1163	Backpacking	1 cr
PEAC 1165	Backcountry GPS Navigation	1 cr
PEAC 1166	Canoing	1 cr
PEAC 1167	Kayak Touring	1 cr
PEAC 1175A	Beginning Kayaking	1 cr
PEAC 1176A	Beginning Rock Climbing	1 cr
PEAC 1177A	Beginning Cross-Country Skiing	1 cr
PEAC 1178A	Beginning Telemark Cross-Country Skiing	1 cr
PEAC 1178B	Intermediate Telemark Cross-Country Skiing	1 cr
PEAC 1181	Bicycling	1 cr
PEAC 1182C	Advanced Dutch Oven Cooking	1 cr
PEAC 1185	Basic Mountaineering	1 cr
PEAC 1186B	Intermediate Fly Fishing	1 cr
PEAC 1189	Beginning Gym Climbing	1 cr
PEAC 1191B	Intermediate Horsemanship	1 cr
PEAC 1194	Caving Workshop	1 cr

*When workshop relates to outdoor education, i.e. Canoe Workshop (1 cr), Whitewater Rafting Workshop (1 cr), Backpacking Workshop (1 cr), Advanced Kayaking-Summer Field Experience (1 cr), Beginning Rock Climbing-Summer Field Experience (1 cr), Advanced Rock Climbing-Summer Field Experience (1 cr).

Minor in Sport Management

Sport Management Standards

The Sport Management Minor is modeled to frame the NASPE-NASSM Content Standards for undergraduate Sport Management programs. The standards encompass 10 core areas that include: Behavioral Dimensions of Sport; Management and Organizational Skills; Ethics in Sport Management; Marketing in Sport; Communication in Sport; Finance in Sport; Economics in Sport; Legal Aspects of Sport; Governance in Sport; and Field Experience in a Sport Setting.

Candidates completing this minor must complete a total of 24 credits, including 18 credits of required courses and 6 approved elective credits from the courses listed below. No more than 32 credit hours of College of Business courses may be counted toward the minor in Sport Management. In addition, the candidate must show satisfactory completion of the ASEP Citizenship Through Sports Course.

Required Courses (21 credits):

MGT 3312	Individual and Organizational Behavior	3 cr
MGT 4473	Human Resource Management	3 cr
PE 3322	Introduction to Sport Psychology	3 cr
PE 3364	Introduction to Sport Law	3 cr
PE 3366	Sport Marketing	3 cr
PE 4473	Facilities Planning and Design	3 cr
PE 4490	Sport Management Practicum	3 cr

Sport Management Elective Courses (6 credits):

ECON 2201	Principles of Macroeconomics	3 cr
ECON 2202	Principles of Microeconomics	3 cr
FIN 3315	Corporate Financial Management	3 cr
MGT 2216	Business Statistics	3 cr
MKTG 3325	Basic Marketing Management	3 cr
MKTG 3327	Consumer Behavior	3 cr
PE 4465	Organization and Administration of Intramural Sports	3 cr
PE 4475	Organization and Administration of Physical Education and Sport	3 cr
PE 4491	Physical Education Workshop*	1-3 cr
PE 4493	Introduction to Sport Sociology	3 cr

* When workshop relates to Sport Management.

Professional Physical Education Courses

PE 1160 Women's Rape Aggression Defense 1 credit. Realistic self-defense tactics and techniques designed for women. Awareness, prevention, risk reduction, risk avoidance, and basic hands-on defense training. R.A.D. is not a Martial Arts program. Cross-listed as PE 1160 and WS 1160. PREREQ: Permission of Public Safety office or sponsoring program. F, S

PE 2205 Methods and Techniques of Gymnastics 2 credits. Fundamental methods and techniques for teaching a variety of gymnastic activities, including tumbling and apparatus. D

PE 2200 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. D

PE 2222 First Aid, CPR and Sport Safety 3 credits. Course includes training in first aid, CPR and sport safety. The course also covers strategies for reducing the risk of suffering a heart attack. The sport safety portion will cover sports-related injury prevention. F, S, Su

PE 2223 Foundations of Physical Education and Sport 3 credits. Study, survey, history, philosophy, and ethics of the allied fields and specialty areas of physical education and sport. F, S, Su

PE 2235 Activity Performance Techniques I 3 credits. Laboratory-enhanced skills in field-based activities and games. Emphasis on participant skill development and performance. F, Su

PE 2236 Activity Performance Techniques II 3 credits. Laboratory-enhanced skills in racquet and court sports. Emphasis on participant skill development and performance. S, Su

PE 2237 Activity Performance Techniques III 3 credits. Laboratory-enhanced skills in fitness and conditioning-based recreation, nontraditional games and activities. Emphasis on skill development and performance. F, Su

PE 2241 Sports Officiating 1 credit. Proper instruction for game officials and coaches including knowledge of rules, mechanisms of

officiating, and game administration. May be repeated for up to 4 credits. D

PE 2243 Anatomical Foundations of Human Activity 3 credits. Study of human body structure including the neuromuscular, skeletal, circulatory, respiratory, digestive, endocrine, reproductive, and organ systems. Course is designed for health and physical education candidates. F, S, Su

PE 2259 Lifeguarding 2 credits. Provides a fundamental knowledge and practical application of principles involving lifesaving techniques in an aquatic environment. Academic course work and pool activity are required of all candidates. Can result in American Red Cross certification. Su

PE 2271 Winter Survival Skills 1 credit. Designed to equip candidates with knowledge necessary for a 72 hour winter survival situation. Content includes winter shelter building, recognizing and treating frostbite, signaling, fire building, survival psychology, nutrition needs, clothing and equipment. S

PE 2272 Wilderness Survival Skills 1 credit. Designed to provide candidates with knowledge and skills necessary to survive a 72 hour emergency (summer and fall seasons). Includes signaling, shelter building, hypothermia, survival kits, fire building, direction finding and desert hazards. F

PE 2280 Winter Camping and Backcountry Travel 1 credit. Techniques, equipment and safety of overnight winter wilderness travel, backcountry skiing and snowshoeing. Permission of instructor. S

PE 2281 Practical Outdoor Skills 1 credit. Study and application of knowledge and skills common to most outdoor activities, and ways in which such skills can be integrated in school, youth and adult activity programs. Practical outdoor knots, map and compass, sheltering strategies, outdoor emergencies, safety procedures, minimal impact techniques, and outdoor team building. F, S

PE 2282 Map, Compass and Backcountry Navigation 1 credit. Practical application of map and compass and wilderness navigation concepts including map and field bearings, declination, resection, contour line interpretation, GPS receiver use, map types, scales, and coordinate systems. F

PE 2283 Leave No Trace Trainer 1 credit. Principles and practices of minimum impact outdoor techniques including traveling approaches, waste disposal, campsite placement, outdoor ethics, state/federal land management requirements, and sport-specific procedures. Completers receive "Leave No Trace" national certification. S

PE 2284 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. PREREQ: PEAC 1175A or permission of instructor. F, S

PE 2285 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. F, S

PE 2286 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. S

PE 2287 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. F

PE 2288 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. F

PE 3300 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. F, S

PE 3301 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: PE 2243, or BIOL 3301 and BIOL 3302. COREQ: PE 3301L. F, ASu

PE 3301L Physiology of Exercise Laboratory 0 credit. Physiological experiments and testing. COREQ: PE 3301. F, ASu

PE 3302 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: PE 2243, or BIOL 3301 and BIOL 3302. COREQ: PE 3302L. F, ASu

PE 3302L Biomechanics Laboratory 0 credit. Biomechanical experiments and testing. COREQ: PE 3302. F, ASu

PE 3312 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

PE 3313 Practical Applications of Coaching Basketball 2 credits. Essential elements of coaching basketball. Emphasis on application and practice in the educational setting. F

PE 3314 Practical Applications of Coaching Football 2 credits. Essential elements of coaching football. Emphasis on application and practice in the educational setting. S

PE 3315 Practical Applications of Coaching Soccer 2 credits. Essential elements of coaching soccer. Emphasis on application and practice in the educational setting. D

PE 3316 Practical Applications of Coaching Tennis 2 credits. Essential elements of coaching tennis. Emphasis on application and practice in the educational setting. D

PE 3317 Practical Applications of Coaching Track and Field 2 credits. Essential elements of coaching track and field. Emphasis on application and practice in the educational setting. S

PE 3318 Practical Applications of Coaching Volleyball 2 credits. Essential elements of coaching volleyball. Emphasis on application and practice in the educational setting. S

PE 3319 Practical Applications of Coaching Wrestling 2 credits. Essential elements of coaching wrestling. Emphasis on application and practice in the educational setting. D

PE 3322 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

PE 3357 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

PE 3358 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

PE 3362 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

PE 3364 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

PE 3366 Sport Marketing 3 credits. Study of sport marketing theory, basic economics, accounting, and budgeting principles. Additional topics will also include sport marketing strategies and tactics, sponsorships, and sport licensing. S

PE 3370 Care and Prevention of Athletic Injuries 3 credits. Basic care, prevention, evaluation, and rehabilitation of athletic injuries. Includes instruction in athletic taping and wrapping. PREREQ: PE 2243, or BIOL 3301 and BIOL 3302. F, S

PE 3380 Field Experience 1 credit. Orientation, observation, planning and supervised experience exposes the candidate to activity instruction under the direction of a major advisor. D

PE 3381 River Safety and Swiftwater Rescue 1 credit. A comprehensive safety and rescue course for river users and rescue service per-

sonnel. Topics include safety equipment, river hazards, river crossings, tag line procedures, zip line and Z-pulley use, moving water extrications, and first aid considerations. Su

PE 3383 Advanced Rock Climbing and Climbing Safety 2 credits. A comprehensive examination of climbing safety—anchor placement, self-rescue, belaying, route protection, case history review, equipment limitations—along with field experience including lead and aid climbing, advanced knots, movement techniques, and minimal impact procedures. PREREQ: PEAC 1176A or permission of instructor. S

PE 3384 Outdoor Risk Management and Liability 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

PE 3386 Outdoor Leadership 2 credits. Designed to provide candidates with the knowledge to organize and lead outdoor activities. Includes leadership styles, liability, program promotion, planning, safety, and environmental impact. Practical experiences are included. S

PE 3397 Professional Education Development 1-3 credits. A course for the practicing educator aimed at the development and improvement of educational skills. Various sections will have different subtitles. A maximum of 10 credits may be applied to fifth year program. Graded S/U. D

PE 4413 Sport in Cinema 3 credits. Investigate sport, and the treatment of sport, through the medium of modern cinema. Sport will be analyzed from the sociological, psychological, moral and ethical perspective of the filmmakers. D

PE 4427 Personal Trainer Certification 3 credits. Theoretical knowledge and practical skills in preparation for national certification exam in personal training. Guidelines for instructing safe, effective and purposeful exercise; essentials for the client-trainer relationship, conducting health and fitness assessments, and designing and implementing appropriate exercise programming. S

PE 4437 Methods of Teaching Secondary Physical Education 3 credits. Designed to prepare the candidate for teaching secondary physical education activities. Emphasis on a variety of teaching methods and their application to all skill levels at the secondary level. PREREQ: Admission to College of Education Teacher Education Program or permission of instructor. S

PE 4440 Survey of Outdoor Education Literature 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

PE 4441 Wilderness First Responder Certification 3 credits. 80-hour certification program, including cardiac and respiratory emergencies, allergies and anaphylaxis, wound management and infection, neurological and spinal injuries, realignment of fractures and dislocations, rescue and extraction, patient monitoring and long term management problems. S

PE 4445 Methods of Teaching Outdoor Activities and Practicum 3-4 credits. This culminating course for outdoor education minors consists of two parts: a study of the objectives, programs and methods of teaching outdoor recreation activities followed by a practicum experience in which candidates assist in teaching and leading outdoor activities. PREREQ: PE 3386, PE 4440, and permission of instructor. S

PE 4454 Senior Capstone 3 credits. Professional development strategies for all undergraduate majors in Sport Science and Physical Education. Explore job strategies, career development opportunities, and field and research experience in the professional areas of Sport Management, Exercise Science, Physical Education Teaching, and Outdoor Education. PREREQ: Permission of instructor. F, S

PE 4465 Organization and Administration of Intramural Sports 3 credits. Study of various methods of organizing and administering intramural sports programs on the junior high school, high school, and college levels. D

PE 4473 Facilities Planning and Design 3 credits. An investigation of the various components, principles, and fundamental practices involved in facility planning and design for physical education, athletics, and recreation. S

PE 4475 Organization and Administration of Physical Education and Sport 3 credits. Study of the management theory and practices utilized in conducting physical education and sport programs. Emphasis will be placed on interscholastic as well as intercollegiate physical education and athletic programs. F

PE 4480 Coaching Problems 1-3 credits. Athletic control, eligibility, new coaching techniques, finances, safety measures, public relations, duties of coaches, managers, and officials. May be repeated for up to 4 credits. F, S, Su

PE 4481 Coaching Clinic 1 credit. Idaho State University is a sponsor of the annual Idaho Coaches Association Clinic held during the first week of August. Instruction offered in football, basketball, and other sports by coaches of national reputation. Total cost of registration at the clinic, board, room, and privileges for the full period of the clinic will be about \$50. An extra fee will be charged for those who register at the clinic for credit. May be repeated for up to 6 credits. Graded S/U. Credits will not be acceptable for degree completion requirements/electives. D

PE 4482 Mechanical Analysis of Human Movement 3 credits. Advanced study of assessing human motion patterns. Course will include computer analysis and videography techniques along with various field analysis techniques utilized in physical skill analyses. PREQ: PE 3302. S, ASu

PE 4484 Exercise Assessment and Prescription 3 credits. Design and principles of exercise assessment procedures in physical education and sport setting. Physical Fitness testing concepts and procedures will be covered along with the principles involved when prescribing exercise programs for physical education and sport participants. PREREQ: PE 3301. S, ASu

PE 4485 Independent Problems in Physical Education 1-3 credits. Individual work under staff guidance. Field and/or library study on specific physical education problems of interest to majors and minors. May be repeated for up to 6 credits. PREREQ: Permission of instructor. F, S, Su

PE 4490 Practicum in Physical Education 1-16 credits. Practical experience in a field-based setting, congruent with candidate's employment goals. May require multiple experiences in a variety of settings outside K-12 school settings. F, S, Su

PE 4491 Physical Education Workshop 1-3 credits. Critical analysis of one or more areas of physical education. May be repeated for up to 6 credits. PREREQ: Permission of instructor. D

PE 4493 Introduction to Sport Sociology 3 credits. Using the topics of youth, violence, gender, race/ethnicity, social class, media, and politics as a springboard, students will explore issues of social justice and diversity in sport and physical education settings. PREREQ: General Education Goal 1. F, ASu

PE 4944 Adapted Physical Activity 3 credits. History, philosophy, and the teaching/learning processes in providing adapted physical activity in schools and community-based settings. Includes clinical experiences. PREREQ: BIOL 3301 or equivalent, or PE 2243, PE 3300, and PE 3362. S

PE 4495 Physical Education: Student Teaching Internship 7-14 credits. Observation and teaching under supervision in approved physical education programs with the opportunity to assume direct responsibility for the learning activities of secondary level students. Includes weekly professional development seminar. PREREQ: Admission to Teacher Education Program and approved application for Student Teaching Internship. Graded S/U. F, S

Activity Courses in Physical Education

PEAC 1100 Adaptive Martial Arts 1 credit. Adaptive and corrective exercise programs in the martial arts (including judo and tae kwon do) designed for individuals unable to participate in a regular activity class. F, S

PEAC 1101 Adaptive Snow Skiing 1 credit. Adaptive and corrective exercise program in snowskiing designed for individuals unable to participate in a regular activity class. S

PEAC 1102 Adaptive Waterskiing 1 credit. Adaptive and corrective exercise program in waterskiing designed for individuals unable to participate in a regular activity class. Su

PEAC 1103 Adaptive Swimming 1 credit. Adaptive and corrective exercise programs in aquatics designed for individuals unable to participate in a regular activity class. Su

PEAC 1104 Adaptive Weight Training 1 credit. Adaptive and corrective exercise programs in progressive body building and conditioning exercises designed for individuals unable to participate in a regular activity class. F, S

PEAC 1105 Seated Aerobics 1 credit. Adaptive and corrective exercise programs designed to improve cardiovascular fitness, flexibility, and strength. D

PEAC 1107 Instructor Training of Adapted Waterskiing 1 credit. Methods and techniques of teaching waterskiing to people with disabilities. Su

PEAC 1108 Instructor Training of Adapted Snowskiing 1 credit. Methods and techniques of teaching snowskiing to people with disabilities. S

PEAC 1109 Instructor Training of Adapted Sport 1 credit. Methods and techniques of teaching a variety of sport skills to people with disabilities. F, S

PEAC 1110 Military Style Physical Fitness, Civilian Only 1 credit. Participate in and 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 MSL 1110. F, S

PEAC 1120 Introduction to Pilates Equipment 1 credit. Introduction of the Pilates-based methods of equipment exercise and how to safely perform some of the basic fundamental movements with the equipment. F, S

PEAC 1121A Beginning Pilates Matwork 1 credit. Provides an introduction to this form of exercise and direction on how to perform some of the basic fundamental movements performed on the floor. F, S

PEAC 1121B Intermediate Pilates Matwork 1 credit. Build upon basic skills learned in beginning matwork course. More advanced floor Pilates skills in building understanding of technique and how technique relates to Pilates apparatus. PREREQ: PEAC 1121A or permission of instructor. D

PEAC 1122A Beginning Yoga 1 credit. Introduction to Yoga practice; building and developing strength, balance, flexibility and an appreciation for controlled movement. F, S

PEAC 1122B Intermediate Yoga 1 credit. Course builds upon basic skills learned in beginning yoga. More advanced skills in building and developing strength, balance, flexibility and an appreciation for controlled movement. F, S

PEAC 1129 Shoshin Ryu 1 credit. Classical martial arts system that blends the most current teaching practices with effective, centuries-old methods of instruction in order to teach students effective self-defense techniques. F, S

PEAC 1130 Aquacise 1 credit. Techniques of water exercises for physical conditioning. Physiological self-assessments and water safety will be covered. F, S

PEAC 1131A Beginning Aerobics 1 credit. Introduction to elementary techniques and modalities of aerobic exercise. Physiological self-assessments and safety will be covered. F, S

PEAC 1131B 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 1131C 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 1132 Individualized Physical Education 1 credit. Introduction to lifetime fitness programming components with individually-designed programs. Physiological self-assessments, safety, and equipment are covered. F, S

PEAC 1132A Spinning 1 credit. Fitness class using spinning/stationary bicycles. Develop cardiovascular endurance (aerobic and anaerobic) and muscular strength and endurance. Music is used as a tool to motivate and inspire, as well as establish the pace, rhythm and energy level of the class. F, S, Su

PEAC 1133 Jogging/Personal Fitness 1 credit. Fitness-oriented course, designed for students who wish to maintain or increase their present fitness level. Physiological self-assessments and safety are covered. F, S

PEAC 1134A Beginning Weight Training 1 credit. Instruction and participation in fundamentals of progressive body-building and conditioning with resistance, including various modalities. Physiological self-assessments and safety will be covered. F, S, Su

PEAC 1134B Intermediate Weight Training 1 credit. Instruction and participation in fundamentals of progressive body-building and conditioning with resistance, including various modalities. Designed for the intermediate lifter. F, S

PEAC 1135A Introduction to Hatha Yoga 1 credit. Introduction to yoga philosophy, beginning postures, and techniques of breathing, relaxation, and meditation. Progressive method builds strength, flexibility, and balance, and is adaptable to all ability levels. Special emphasis on proper alignment and diaphragmatic breathing. F, S

PEAC 1135B Intermediate Hatha Yoga 1 credit. Course builds upon basic skills learned in introductory course, including addition of more challenging postures, advanced breathing and relaxation techniques, while continuing to build flexibility, strength and balance. More attention given to yoga philosophy and meditation. PREREQ: PEAC 1135A OR PERMISSION OF INSTRUCTOR. D

PEAC 1136 Targit Fit (TM) Conditioning 1 credit. Targit Fit (TM) system used for over 115 different weight room type exercises while learning resistance training. Resistance training options allow students to improve muscular strength, overall cardiovascular endurance and flexibility while improving bone density. F, S

PEAC 1137 Marathon Training 1 credit. Physical, mental and spiritual training principles for beginning runners training to complete marathons. D

PEAC 1138 Kendo 1 credit. Introduction to principles and philosophies of Kendo, including training hall etiquette, basic sword handling, combat stances, footwork and striking a target. D

PEAC 1139A Beginning Fencing 1 credit. Introduction to the basic skills of foil fencing including equipment, grip, salute, on-guard, advance, retreat, lunge, and defense. Includes safety concerns, basic strategies, and rules. F, S

PEAC 1139B Intermediate Fencing 1 credit. Continuation and expansion of the basic skills included in the beginning course with the addition of parries, engagements, and advanced attacks. Also includes advanced strategies. F, S

PEAC 1140A Beginning Billiards 1 credit. Introduction to the fundamental skills involved in billiards: technique, game play, scoring, and etiquette. F, S

PEAC 1140B Intermediate Billiards 1 credit. Designed for the intermediate level player; this course explores a variety of more advanced shots and strategies. F, S

PEAC 1141A Fundamentals of Bowling 1 credit. Introduction to fundamental skills, score-keeping, handicaps, and rules of bowling. F, S

PEAC 1141B Intermediate Bowling 1 credit. Designed for the intermediate level bowler, this course builds upon the skills and knowledge of the fundamentals course. F, S

PEAC 1141C Advanced Team Bowling 1 credit. Introduction to more advanced individual techniques and skill assessment and corrections for bowling. F, S

PEAC 1142A Beginning Golf 1 credit. Fundamental philosophies and techniques of golf, including grip, use of irons, woods, and putter, and etiquette. F, S, Su

PEAC 1142B 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 1143A Beginning Judo 1 credit. Rudimentary principles and philosophies of judo, including the techniques of grappling, throwing and falling. F, S

PEAC 1143B Intermediate Judo 1 credit. A continuation of fundamental judo skills and philosophies for intermediate-skilled students, including basics of some advanced skills. F, S

PEAC 1143C Advanced Judo 1 credit. A refinement of fundamental judo skills and philosophies for advanced-skilled students, including advanced techniques of throwing, grappling, and falling. F, S

PEAC 1144 Tae Kwon Do 1 credit. Presentation of principles and philosophies of Tae Kwon Do, a Korean form of karate meant for energy conservation in self-defense technique. F, S

PEAC 1145 Rodeo 1 credit. An orientation to the safety and techniques of the various events of the modern-day rodeo. F, S

PEAC 1146 Archery 1 credit. Introduction to equipment, technique, and safety practices of archery. D

PEAC 1146B Archery -- Bowhunter Education 1 credit. Technique, strategy, safety and equipment in the sport of Bowhunter Archery. Bowhunter Education Certification included. F, S

PEAC 1147A Beginning Karate 1 credit. Principles and philosophies of a modified Shorin Ryu Karate Do directed towards beginning martial artists. F, S

PEAC 1148A Beginning Women's Judo 1 credit. Introduction to methods and techniques of judo for women. Includes a variety of holding and throwing techniques. Rules, safety considerations, and the philosophy of judo are emphasized. D

PEAC 1149A Tai Chi 1 credit. This course is designed to facilitate fitness through the practice in the Yang-style short form of Tai Chi Chuan. D

PEAC 1149B Intermediate Tai Chi 1 credit. This course is designed to further skill competency and fitness through practice in the Yang-style short form of Tai Chi Chuan. PREREQ: PEAC 1149A or equivalent skill and ability. D

PEAC 1150A Beginning Racquetball 1 credit. Introduction to fundamentals of technique, strategy, and safety in the game of racquetball. F, S

PEAC 1150B Intermediate Racquetball 1 credit. Continuation of basic skills and fundamental strategies for the intermediate level racquetball player. F, S

PEAC 1150C Advanced Racquetball 1 credit. Refinement of skills, techniques, and strategies for the advanced level racquetball player. D

PEAC 1151A Beginning Tennis 1 credit. Rudimentary principles and techniques of tennis, including basic shot selection, conditioning, drill works, and game play. F, S, Su

PEAC 1151B Intermediate Tennis 1 credit. A continuation of fundamental tennis skills and principles for intermediate-skilled students, including an introduction to some advanced skills. F, S

PEAC 1151C Advanced Tennis 1 credit. Refinement of skills, techniques, and strategies for the advanced level player. D

PEAC 1152A Beginning Badminton 1 credit. Introduction to basic skills, game play, and strategies in the game of badminton. D

PEAC 1152B Intermediate Badminton 1 credit. Continuation of skill refinement, more advanced game play, and strategies for the intermediate player. D

PEAC 1152C Advanced Badminton 1 credit. Refinement of fundamental skills, more advanced game play, and strategies for the advanced player. D

PEAC 1153 Racquet Sports 1 credit. Introduction to and instruction in fundamental skills for a variety of court sports, specifically tennis, racquetball and badminton. D

PEAC 1154 Table Tennis 1 credit. Introduction to the basic fundamentals of the game of table tennis. Includes fundamental individual and doubles techniques, strategies, and play. D

PEAC 1155A Beginning Soccer 1 credit. Introduction to basic individual and team soccer skills, including dribbling, shooting, and offensive and defensive techniques and strategies. S

PEAC 1155B Intermediate Soccer 1 credit. Continuation of fundamental team and individual skill acquisition, and introduction of more advanced techniques and strategies. D

PEAC 1156A Beginning Basketball 1 credit. Fundamental individual and team techniques, strategies, and play. F, S

PEAC 1156B Intermediate Basketball 1 credit. More advanced individual and team techniques, strategies and play for intermediate level players. F, S

PEAC 1157A Beginning Volleyball 1 credit. Introduction to fundamental individual and team skills, strategies, and play for beginning level volleyball players. S

PEAC 1157B Intermediate Volleyball 1 credit. More advanced individual and team skills, strategies, and play for intermediate level volleyball players. S

PEAC 1158 Softball 1 credit. Introduction to fundamental skills, and refinement of more advanced skills, for individual and team techniques, strategies, and play in softball. F, S

PEAC 1159 Ultimate Frisbee 1 credit. This course is designed to enhance student skills and abilities in ultimate frisbee. D

PEAC 1160A Beginning Skiing 1 credit. Fundamental techniques, etiquette, training, safety practices and skill practice in downhill skiing for beginners. S

PEAC 1160B Intermediate Skiing 1 credit. For intermediate level skiers, an emphasis on safety practices, etiquette, more advanced techniques, training, and skill practice. S

PEAC 1160C Advanced Skiing 1 credit. Intended for advanced skiers, this course emphasizes high-level skill acquisition, training, safety, ski etiquette, and skill practice. S

PEAC 1161A Beginning Night Skiing 1 credit. Skill acquisition and safety practices for beginners who wish to ski at night. S

PEAC 1162A Beginning Snowboarding 1 credit. Introduction to snowboarding, including selection of equipment, safety practices, etiquette, and techniques. S

PEAC 1162B Intermediate Snowboarding 1 credit. Designed for the experienced snowboarder. A continuation of the basic skills and techniques included in the beginning course. S

PEAC 1163 Backpacking 1 credit. Designed for the beginning to advanced backpacker, this course prepares the students for and includes a week long backpacking trip. Includes discussions on navigation, equipment, low impact techniques and food preparation. F, S

PEAC 1164A Beginning Ice Skating 1 credit. The ice skating course is designed for full participation on ice. Proper techniques are taught for various levels of figure and hockey skaters. S

PEAC 1165 Backcountry GPS Navigation 1 credit. The practical use of portable GPS devices for outdoor applications. Topics covered include angular and rectangular coordinates, cross-country land navigation, use of waypoint coordinates, determining distance, and limitations of GPS. F

PEAC 1166 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 1167 Kayak Touring 1 credit. Basic skills for lake, ocean and flat-water kayaking including equipment, technique, navigation, safety and rescue. F

PEAC 1168 Day Hiking 1 credit. Skills necessary to be successful in outdoor hiking situations. Learn to plan, prepare and execute a day hiking adventure by focusing on equipment, skills and physical preparation. D

PEAC 1169 Touch Rugby 1 credit. Introduction to the participation in the fundamental techniques, strategies, training systems and safety of touch rugby. D

PEAC 1170A Beginning Swimming 1 credit. Introduction to propulsive movement skills in the water; includes safety, front crawl, and elementary backstroke. F, S

PEAC 1170B Intermediate Swimming 1 credit. Refinement of beginning skills; includes an introduction to breaststroke, intermediate level safety, basic diving technique, back crawl, and sidestroke. F, S

PEAC 1170C Advanced Swimming 1 credit. Refinement of previous strokes; includes introduction to butterfly, inverted breaststroke, the trudgen, and overarm sidestroke. D

PEAC 1171 Synchronized Swimming 1 credit. An orientation to the fundamentals of the Olympic sport of individual and team synchronized swimming, including tricks, presentation, and basic to advanced skills. D

PEAC 1172 SCUBA Diving 1 credit. Basic skills in SCUBA diving: mask, fins, snorkel use; safety techniques; mechanical equipment use; aquatic environments. Students must: swim 400 yards; tread water 15 minutes; carry ten pound brick 25 yards. No certification. F, S

PEAC 1173 Skin and SCUBA Diving Certification 2 credits. Skills in SCUBA: mask, fins, and snorkel use; safety techniques; mechanical equipment use; aquatic environments. Students must: swim 400 yards; tread water 15 minutes; carry ten pound brick 25 yards. Certification possible. F, S, Su

PEAC 1174 Advanced Open Water SCUBA Diving 2 credits. Course builds upon basic skills learned in beginning SCUBA diving. Student must have open water certification. Teaches the four specialties of photography, equipment, navigation and search/recovery. Requires eight dives during two open water diving days. Student will receive certification after completion of course requirements. PREREQ: Open water certification. D

PEAC 1175A Beginning Kayaking 1 credit. Uses controlled environment of ISU pool and includes basic skills including draw and sculling strokes, high and low bracing, eddy turns, deep water rescue techniques, river safety, and Eskimo roll. F, S

PEAC 1176A Beginning Rock Climbing 1 credit. Designed for students with little or no climbing experience, this outdoor class covers basic climbing including knot tying, belaying, movement techniques, top rope anchor systems, and safety procedures. F, S

PEAC 1176B Intermediate Rock Climbing 1 credit. Designed for the intermediate level student, this course explores more advanced techniques, etiquette, and minimal impact techniques. F, S

PEAC 1177A Beginning Cross-Country Skiing 1 credit. Designed for beginning skiers, this course introduces students to flat surface techniques and progresses to uphill and downhill techniques. Indoor lectures are combined with tours to local cross-country ski areas. S

PEAC 1177B Intermediate Cross-Country Skiing 1 credit. Designed for intermediate skill cross-country skiers, this course builds on the fundamental techniques of the beginning course. Includes safety in the backcountry, more advanced uphill and downhill techniques, and overnight trip planning. S

PEAC 1178A Beginning Telemark Cross-Country Skiing 1 credit. Fundamental skills of executing downhill turns on cross-country skis. Telemark is primary emphasis, but wedge, stem christie, and parallel turns are also covered in relation to free heel skis. S

PEAC 1178B Intermediate Telemark Cross-Country Skiing 1 credit. Course builds upon the basic skills first introduced in the beginning course. Introduces additional techniques. S

PEAC 1179 Diver Stress and Rescue 2 credits. Introduction to fundamentals and techniques to understand diver stress, reasons for occurrence, methods of detection, methods of prevention, methods of treatment at occurrence. Student will receive certification after completion of course requirements. D

PEAC 1180A Beginning Windsurfing 1 credit. Introduction to the basic skills of sailboarding including sail rigging, sailing maneuvers, wind reading and windsurfing safety. F, S

PEAC 1180B Intermediate Windsurfing 1 credit. Continuation of basic skills of sailboarding, with additional emphasis on more advanced technique and weather reading for the intermediate level windsurfer. F, S

PEAC 1181 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 1182A Beginning Dutch Oven Cooking 1 credit. Includes basic food preparation, meal planning and the care and use of cast iron dutch ovens. Nightly demonstrations by guest chefs. Students will select recipes, buy food, and prepare their own meals. F, S

PEAC 1182C Advanced Dutch Oven Cooking 1 credit. Expands upon the basics taught in the beginning course. Includes large group meal planning, dutch oven catering, garnishing and presentation of meals, gourmet meal preparation, and competitive cooking. F

PEAC 1185 Basic Mountaineering 1 credit. Designed for students wishing to climb mountains on a non-technical basis. Includes ice axe use, rope team travel, clothing, equipment, hazards, hypothermia, and acute mountain sickness. S

PEAC 1186A Beginning Fly Fishing 1 credit. Equipment selection, basic techniques of flycasting, basic knots and types of flies are included. Dry fly fishing, nymphing, and streamer fishing included. D

PEAC 1186B Intermediate Fly Fishing 1 credit. Specialized casting techniques for different conditions included. Selecting and using the proper fly as well as how to read a stream and locate fish will be addressed. Emphasis will be on fishing still waters, small streams and big rivers. PREREQ: PEAC 1186A or permission of instructor. D

PEAC 1186C Advanced Flyfishing Skills 1 credit. Advanced level specialized techniques including casting, fly selection and use, fish behavior, stream, still water and big water fishing, advanced equipment use, and advanced equipment construction. PREREQ: PEAC 1186B or permission of instructor. F, S

PEAC 1186D Advanced Flyfishing –River and Still Water 1 credit. Equipment selection, advanced techniques of fly-casting, knots and types of flies. River and still water techniques, including dry fly-fishing, nymphing, and streamer fishing. F, S

PEAC 1186E Advanced Flyfishing—Fly Rod Building 1 credit. Equipment selection, basic techniques of rod building, basic wrapping and types of blanks. Students will wrap their own rods and apply resin. F, S

PEAC 1187A Beginning Fly Tying 1 credit. Basic fly tying skills for the beginner. Introduction and explanation of basic tools and materials. Course will include simple nymph, wet and dry fly patterns. D

PEAC 1187B Intermediate Fly Tying 1 credit. Intermediate level course for the experienced fly-tyer. Advanced patterns included with additional emphasis on innovative materials and techniques. Basic entomology will also be addressed. PREREQ: PEAC 1187A or permission of instructor. D

PEAC 1189 Beginning Gym Climbing 1 credit. Taught entirely indoors on the Idaho State University Climbing Wall, this course covers climbing knots, belaying procedures, basic equipment, movement techniques, and safety. S

PEAC 1190 Varsity Athletics, Bengal Dance Team, and Cheerleading 1 credit. Instruction and participation in ISU Department of Athletics-approved sports. Coach's approval required. F, S

PEAC 1191A Basic Horsemanship 1 credit. Introduces the student to horsemanship, safety and riding skills. Includes horse behavior, safety, grooming, tack care, tacking horse, nutrition, fitness, basic skills for the horse and rider. Skills include guiding, posting at a trot, correct leads, flying lead changes, obtaining balanced stops, roll maneuvers and techniques to work the problem horse. F, S

PEAC 1191B Intermediate Horsemanship 1 credit. Build upon basic skills learned in beginning horsemanship. Intermediate skills include guiding, posting at a trot, correct leads, flying lead changes, stops, roll maneuvers and techniques to work the problem horse. PREREQ: PEAC 1191A or permission of instructor. D

PEAC 1193 Leave No Trace Workshop 1 credit. Participants will gain a better understanding of LNT practices and outdoor ethics, developing confidence in teaching others about LNT. Through activities, outdoor overnight experience, and discussions, students will look at their own outdoor ethics and be challenged to better develop their skills and practices to lessen their impact on the land. D

PEAC 1194 Caving Workshop 1 credit. Designed for students that want to develop the skills necessary to explore non technical caves. The course covers navigation, equipment, rappelling, light sources, emergency preparation, and the history of caving. S

PEAC 1195A Beginning Disc Golf 1 credit. Introduction to the sport of Disc Golf. The class covers basic throwing techniques, putting styles and mental preparation for competitive play. F

PEAC 1196 Skateboarding 1 credit. Introduction to the fundamentals, technique, and overall knowledge of skateboarding. F, S

PEAC 1197 Handball 1 credit. Introduction to the fundamentals of technique, strategy, and safety in the game of handball. D

PEAC 1198A Team Sports: Inline Roller Hockey 1 credit. Fundamentals of inline hockey, including game rules, safe practices, skating, stick handling, passing, shooting, goaltending, offensive and defensive play, and officiating. D

PEAC 1198B Team Sports: Lacrosse 1 credit. Fundamentals of Lacrosse including: game rules, equipment, safe practices, cradling, passing, catching, scooping, and scrimmaging. D

PEAC 1198C Team Sports: Flag Football 1 credit. Fundamentals of flag football including game rules, equipment, safe practices, passing, catching, offensive and defensive play, and scrimmaging. F

College of Engineering

Richard T Jacobsen, Ph.D., Dean
D. Subbaram Naidu, Ph.D., Associate
Dean

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 or computer science 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 Civil Engineering, Environmental Engineering, Environmental Science and Management, Measurement and Control Engineering, Mechanical Engineering, and Nuclear Science and Engineering. The Ph.D. is available in Engineering and Applied Science and in Nuclear Science and Engineering. For more information, see the Graduate Catalog. Additional graduate programs are available through interdisciplinary majors with mathematics and the physical sciences.

General Education Requirements (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.

Goal 1	ENGL 1102, Critical Reading and Writing	3 cr
Goal 2	COMM 1101, Principles of Speech	3 cr
Goal 3	MATH 1170, Calculus I	4 cr

Goal 4	Met via 12-credit policy in physical sciences	
Goal 5	CHEM 1111, 1111L, General Chemistry PHYS 2211, 2212 Engineering Physics	5 cr 8 cr 6 cr
Any two of Goals 6, 7, and 8		
Any three of Goals 9, 10 (A or B), 11 and 12		9 or 14 cr

Engineering Courses

ENGR 1105 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 1147 or equivalent. F, S

ENGR 1120 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 1165 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 1147. F, S

ENGR 1166 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 1170. PREREQ OR COREQ: ENGR 1165. F

ENGR 1167 Engineering and Scientific Programming 1 credit. Introduces a high level, compiled, programming language used in engineering and scientific applications. Covers compilation and linking, functions and procedures, the use of libraries, and engineering applications. PREREQ OR COREQ: ENGR 1165. S

ENGR 1190 Energy and Nuclear Power 2 credits. Energy sources, distribution, and use. Environmental effects. Development of alternative energy sources. PREREQ: MATH 1147 or equivalent. F

ENGR 2210 Engineering Statics 3 credits. Concepts of force vectors and equilibrium with emphasis on free body diagrams. Trusses, beams, frames, centroids, fluid statics, and friction. PREREQ: ENGR 1120. COREQ: ENGR 1105 or ME 1105; PHYS 2211, and MATH 1175. F, S

ENGR 2220 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 2210. F, S

ENGR 2223 Materials and Measurements 3 credits. Structure of materials. Mechanical, electrical and thermal behavior of metals, ceram-

ics, polymers and composite materials. Laboratory measurement of material properties. Three lectures and one lab per week. PREREQ: CHEM 1111, CHEM 1111L, and ENGL 1102. F, S

ENGR 2224 Materials and Measurements Laboratory 1 credit. Laboratory measurement of material properties. COREQ: ENGR 2223. F, S

ENGR 3307 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 2220 and PHYS 2212. F

ENGR 3350 Mechanics of Materials 3 credits. Theories of stresses and strains for ties, shafts, beams, columns and connections. Determination of deflections and the investigation of indeterminate members. An introduction to design. PREREQ: ENGR 2210, ENGR 2223, and ENGR 2224. F, S

ENGR 3360 Engineering Economics 2 credits. Economic analysis and comparison of engineering alternatives by annual cost, present and future worth, and rate of return methods. Study of cost factors upon which management decisions are based. PREREQ: Junior standing in Engineering. F, S

ENGR 3361 Engineering Economics and Management 3 credits. Economic analysis and comparison of engineering alternatives by annual cost, present and future worth, and rate of return methods. Study of cost factors upon which management decisions are based. Introduction to design/construction processes, cost estimating and scheduling with applications to civil engineering projects. PREREQ: Junior standing in Engineering. F, S

ENGR 3364 Engineering Numerical Techniques 3 credits. Numerical methods for solving linear and nonlinear systems of equations, data fitting and smoothing, numerical integration and differentiation, initial and boundary value problems, and optimization. Stresses engineering applications and programming projects. PREREQ: ENGR 1165 or CS 1181; MATH 2240, MATH 2275, and MATH 3360. F

ENGR 3392 Cooperative Education 1-3 credits. Academic work done in conjunction with approved engineering work experience. Written report required. Consult with faculty advisor regarding availability and specific requirements. Graded S/U. PREREQ: Junior standing and permission of instructor. F, S, Su

ENGR 4400 Essentials of Engineering 2 credits. Preparation for Fundamentals of Engineering Exam. May not be used as a technical elective. May be repeated once for a total of 4 credits. PREREQ: Senior standing in Engineering. Graded S/U. F, S

ENGR 4415 Model Theory 3 credits. Theory of design and testing of scaled system models. Dimensional analysis with application to physical models. True and distorted models, linear and nonlinear models and analogies. Laboratory work required. PREREQ: ME 3341 and ENGR 3350. D

ENGR 4421 Advanced Engineering Mathematics I 3 credits. Analysis of complex

linear and nonlinear engineering systems using advanced techniques including Laplace transforms, Fourier series and classical partial differential equations. Cross-listed as MATH 4421. PREREQ: MATH 3360. F

ENGR 4422 Advanced Engineering Mathematics II 3 credits. Analysis of complex linear and nonlinear engineering systems using advanced techniques, including probability and statistics, advanced numerical methods and variational calculus. Cross-listed as MATH 4422. PREREQ: ENGR 4421 or MATH 4421. S

ENGR 4478 Probabilistic Risk Assessment 3 credits. Probabilistic methods applied to analysis and design. Setting probabilistic design objectives and calculating probabilistic performance emphasized. PREREQ: ENGR 3364, MATH 3360 and Senior standing in Engineering. D

ENGR 4481 Independent Problems 1-3 credits. Students are assigned to, or request assignment to, independent problems on the basis of interest and preparation. May be repeated for a maximum of 6 credits. PREREQ: Permission of instructor. D

ENGR 4492 Human Factors in Engineering 3 credits. Overview of the discipline of human factors engineering, including design of information displays, controls, workspace, and human performance. Relationship of engineering to corporate issues such as R&D, maintenance, training, operations, safety. D

ENGR 4496A 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 4496A. PREREQ: Approval of application for admission to course. F

ENGR 4496B 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 4496B. PREREQ: ENGR 4496A. S

Department of Civil and Environmental Engineering

Interim Chair and Professor: Ebrahimpour
Associate Chair and Professor: Sató
Professor: Leung
Assistant Professor: Savage
Senior 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 3000 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 1170	Calculus I	4 cr
MATH 1175	Calculus II	4 cr
CHEM 1111, 1111L	General Chemistry I, and Lab	5 cr
PHYS 2211	Engineering Physics	4 cr
ENGR 1105	Engineering Graphics	2 cr
ENGR 1120	Introduction to Engineering	2 cr
ENGR 1165	Structured Programming	2 cr
ENGR 2210	Engineering Statics	3 cr
ENGR 2220	Engineering Dynamics	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 132 or 137 credits as follows:

Mathematics and Engineering Core Courses (41 credits)

MATH 1175	Calculus II	4 cr
MATH 2240	Linear Algebra	3 cr
MATH 3360	Differential Equations	3 cr
EE 2240	Introduction to Electrical Circuits	3 cr
ENGR 1105	Engineering Graphics	2 cr
ENGR 1120	Introduction to Engineering	2 cr
ENGR 1165	Structured Programming	2 cr
ENGR 2210	Engineering Statics	3 cr
ENGR 2220	Engineering Dynamics	3 cr
ENGR 2223, 2224	Materials and Measurements, and Lab	4 cr
ENGR 3307	Thermodynamics	3 cr

ENGR 3361	Engineering Economics and Management	3 cr
ENGR 4496A	Project Design I	3 cr
ENGR 4496B	Project Design II	3 cr

Other Engineering and Mathematics Courses (38 credits)

ENGR 3350	Mechanics of Materials	3 cr
MATH 3352	Introduction to Probability	3 cr
CE 3301	Surveying	3 cr
CE 3332	Basic Geotechnics	3 cr
CE 3351	Engineering Hydrology	2 cr
CE 3362	Structural Analysis	4 cr
CE 4434	Geotechnical Design	3 cr
CE 4435	Hydraulic Design	3 cr
CE 4436	Transportation Engineering	3 cr
CE 4437	Geotechnical Engineering Laboratory	1 cr
CE 4462	Design of Steel Structures	3 cr
CE 4464	Design of Concrete Structures	3 cr
CE 4467	Structural Engineering Laboratory	1 cr
ME 3341	Fluid Mechanics	3 cr

Additional Requirements (15 credits)

ENVE 4408	Water and Wastewater Quality	3 cr
ENVE 4410	Introduction to Environmental Engineering	3 cr

CE electives*

* List of approved courses is available from the College of Engineering office.

Emphasis in Engineering Geology

Complete the following courses in addition to the Bachelor of Science in Civil Engineering:

CE/GEOL 4454	Basic Engineering Geology	3 cr
CE/GEOL 4455	Geologic Data Methods	3 cr
CE/GEOL 4475	Essentials of Geomechanics	3 cr
CE/GEOL 4476	Engineering Geology Project	1 cr
CE 4480/GEOL 4483	Earthquake Engineering	3 cr

Civil Engineering Courses

CE 3301 Surveying 3 credits. Fundamental principles of surveying. Electronic and conventional angle and distance measurement, leveling, traversing, GPS, surveying computations, mapping. Application to engineering, geology and architecture. PREREQ: MATH 1147 or equivalent. F, D

CE 3332 Basic Geotechnics 3 credits. Classification, analysis and evaluation of soils as engineering material. Water movement through soils. Soil mechanics applied to analysis of foundations, earth slopes and other structures. PREREQ: ENGR 2224. COREQ: ME 3341. S

CE 3351 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 3341. S

CE 3362 Structural Analysis 4 credits. Analysis of statically determinate and indeterminate trusses, beams, and frames; effects of moving loads; matrix stiffness method; computer applications. Four lectures and one 1-hr problem session a week. PREREQ: ENGR 3350 and MATH 2240. F

CE 4431 Advanced Mechanics of Solids 3 credits. An introduction to elasticity, plasticity, and energy foundations, stability, plates. PREREQ: ENGR 3350 and MATH 3360. F

CE 4434 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 3350 and CE 3332. F

CE 4435 Hydraulic Design 3 credits. Hydraulic design of water control and transport structures, pipelines, and distribution systems. Computer methods utilized. PREREQ: ME 3341. F

CE 4436 Transportation Engineering 3 credits. Fundamentals of earthwork, route location, drainage, and pavement materials with application to geometric and pavement design of highways, streets and rural roads. PREREQ: ENGR 2224 and CE 3301. COREQ: CE 3332. S

CE 4437 Geotechnical Engineering Laboratory 1 credit. Field and laboratory work on site investigation, soil sampling, classification and testing. Evaluation of soil properties. Design of experiments. PREREQ: CE 3332. F

CE 4454 Basic Engineering Geology 3 credits. Geology applied to civil engineering projects; rock engineering classification systems and geotechnical parameters such as joint set orientation, ground behavior and underground construction. Preparation of baseline geotechnical reports. Cross-listed as GEOL 4454. COREQ: GEOL 3314 or CE 3332. D

CE 4455 Geologic Data Methods 3 credits. Geotechnical investigations for civil works projects; geologic mapping for civil engineering purposes; development of engineering geologic profiles; core logging; preparation of Geotechnical Data Reports for civil works projects. Cross-listed as GEOL 4455. PREREQ: CE/GEOL 4454. D

CE 4462 Design of Steel Structures 3 credits. Design of steel members and connections with emphasis on the AISC specifications. PREREQ: CE 3362. S

CE 4464 Design of Concrete Structures 3 credits. Design of reinforced concrete beams, columns, and slabs. Introduction to pre-stressing. PREREQ: CE 3362. S

CE 4465 Design of Prestressed Concrete Structures 3 credits. Basic concepts in prestressed concrete design, full versus partial prestressing, flexural design, ultimate load design, beams with constant and variable tendon eccentricity, design of reinforcement for shear and torsion. PREREQ: CE 4464. F

CE 4466 Design of Wood Structures 3 credits. Design of solid and laminated wood members and connections. Includes the design of wooden diaphragms for resisting lateral loads. PREREQ: CE 3362. D

CE 4467 Structural Engineering Laboratory 1 credit. Measurement of stresses and load distribution through concrete, steel and wood components and structures. Design of experiment. PREREQ: CE 3362. S

CE 4468 Behavior of Composite Materials 3 credits. Macro and micromechanical behavior of laminae and laminates; bending, buckling

and vibration of laminated beams and plates. PREREQ: ENGR 3350 and MATH 2240. D

CE 4475 Essentials of Geomechanics 3 credits. Essentials of rock fracture relevant to geological engineering including stress and strain, properties and classification of rock masses, rock fracture mechanisms. Cross-listed as GEOL 4475. PREREQ: GEOL 4421 or ENGR 3350. D

CE 4476 Engineering Geology Project 1 credit. Team projects studying actual problems in engineering geology. Cross-listed as GEOL 4476. PREREQ: GEOL 4454 or CE 4454. D

CE 4480 Earthquake Engineering 3 credits. Topics include: mechanism and characterization of earthquakes; seismic risk analysis; site and structural response; applications from points of view of engineer and geologist. PREREQ: GEOL 3313, CE 3332, or permission of instructor. D

Environmental Engineering Courses

ENVE 4404 Environmental Risk Assessment 3 credits. Quantitative and qualitative approaches to characterizing and controlling contaminant pathways. Risk assessment requirements and implications in superfund projects for engineers working on remediation. PREREQ: Permission of major advisor. F

ENVE 4408 Water and Waste Water Quality 3 credits. Principles of chemistry in application to water and wastewater treatment systems for water quality control and reuse. PREREQ: CHEM 1111 and CHEM 1111L or equivalent. S, D

ENVE 4409 Water and Waste Water Lab 1 credit. Fundamental analytical procedures for measurement of water and waste water quality. Introduction to materials and protocols associated with general environmental analytical techniques. COREQ: ENVE 4408. D

ENVE 4410 Introduction to Environmental Engineering 3 credits. Introduction to physical, chemical, and biological principles of solid and hazardous waste management, water and wastewater treatment, air pollution control, and national environmental regulation. PREREQ: ENVE 4408 or equivalent. F

ENVE 4430 Air Pollution and Solid Waste 3 credits. Sources, characteristics, regulations, and effects of air pollution and solid waste on environmental quality; analysis and design of control systems, including the recovery of resources from solid waste. PREREQ: Senior standing in Engineering or permission of instructor. D

Department of Electrical Engineering and Computer Science

Chair and Professor: Mousavinezhad
Program Coordinator and Professor:
Beard

Professors: Bosworth, Naidu, Schou,
Stuffle

Associate Professors: Ellis, Kantabutra

Assistant Professors: Chiu, Tappan

Associate Lecturer: Hart

Adjunct Faculty: Gan, Hunter, Jensen,
Lefevre, Pan, Parsons, Prasad,
Renlund

Affiliate Faculty: Suri

Bachelor of Science in Electrical Engineering

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.

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 3000 or above) until officially declared an Electrical Engineering major.

Key Courses:

EE 2240	Introduction to Electrical Circuits	3 cr
EE 2274, 2275	Introduction to Digital Systems, and Lab	4 cr
CHEM 1111, 1111L	General Chemistry I, and Lab	5 cr
CS 1181, 1181L	Computer Science and Programming I, and Lab	3 cr
PHYS 2211, 2212	Engineering Physics	8 cr

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 1181, 1181L	Computer Science and Programming I, and Lab	3 cr
CS 1182, 1182L	Computer Science and Programming II, and Lab	3 cr
CS/MATH 1187	Applied Discrete Structures	3 cr
ENGL 3307	Professional and Technical Writing	3 cr
MATH 1175	Calculus II	4 cr
MATH 2240	Linear Algebra	3 cr
MATH 2275	Calculus III	4 cr
MATH 3360	Differential Equations	3 cr
EE 2240	Introduction to Electrical Circuits	3 cr
EE 3340	Fundamentals of Electrical Devices	3 cr
EE 3342	Fundamentals of Electrical Devices Laboratory	1 cr
ENGR 3360	Engineering Economics	2 cr
EE 4416	Applied Engineering Methods	3 cr
ENGR 4496A	Project Design I	3 cr
ENGR 4496B	Project Design II	3 cr

College of Engineering Required Courses (47 credits):

EE 2274	Introduction to Digital Systems	3 cr
EE 2275	Introduction to Digital Systems Laboratory	1 cr
EE 3325	Electromagnetics	4 cr
EE 3329	Introduction to Electronics	3 cr
EE 3345	Signals and Systems	3 cr
EE 4400	Electrical Engineering Senior Seminar	1 cr
EE 4418	Communication Systems	3 cr

EE 4427, 4427L	Embedded Systems Engineering, and Lab	3 cr
EE 4429, 4429L	Advanced Electronics, and Lab	3 cr
EE 4472, 4472L	Electrical Machines and Power, and Lab	4 cr
EE 4473	Automatic Control Systems	3 cr
EE 4475	Digital Signal Processing	3 cr
EE 4484	Signal Processing Laboratory	1 cr
CS 4475	Computer Architecture and Organization	3 cr

IN ADDITION		
EE Electives*		6 cr
Upper division Technical Elective or EE elective		3 cr
*List of approved courses is available from the College of Engineering office.		

Recommended Schedule

Fall Semester Freshman Year

CHEM 1111, 1111L	General Chemistry I, and Lab	5 cr
CS 1181, 1181L	Computer Science and Programming I, and Lab	3 cr
MATH 1170	Calculus I	4 cr
Social Science and Humanities Course		3 cr
		Semester Total 15 cr

Spring Semester Freshman Year

CS 1182, 1182L	Computer Science and Programming II, and Lab	3 cr
CS/MATH 1187	Applied Discrete Structures	3 cr
ENGL 1102	Critical Reading and Writing	3 cr
MATH 1175	Calculus II	4 cr
PHYS 2211	Engineering Physics	4 cr
		Semester Total 17 cr

Fall Semester Sophomore Year

COMM 1101	Principles of Speech	3 cr
EE 2274, 2275	Introduction to Digital Systems, and Lab	4 cr
EE 2240	Introduction to Electrical Circuits	3 cr
MATH 2240	Linear Algebra	3 cr
PHYS 2212	Engineering Physics	4 cr
		Semester Total 17 cr

Spring Semester Sophomore Year

Social Science and Humanities Course		3 cr
EE 3340, 3342	Fundamentals of Electrical Devices, and Lab	4 cr
ENGR 3360	Engineering Management and Economics	2 cr
ENGL 3307	Professional and Technical Writing	3 cr
MATH 2275	Calculus III	4 cr
		Semester Total 16 cr

Fall Semester Junior Year

CS 4475	Computer Architecture and Organization	3 cr
EE 3325	Electromagnetics	4 cr
EE 3345	Signals and Systems	3 cr
EE 4472, 4472L	Electrical Machines and Power, and Lab	4 cr
MATH 3360	Differential Equations	3 cr
		Semester Total 17 cr

Spring Semester Junior Year

EE 3329	Introduction to Electronics	3 cr
EE 4427, 4427L	Embedded Systems Engineering, and Lab	3 cr
EE 4473	Automatic Control Systems	3 cr
EE 4416	Applied Engineering Methods	3 cr
Social Science or Humanities Course		3 cr
		Semester Total 15 cr

Fall Semester Senior Year

EE 4400	Electrical Engineering Senior Seminar	1 cr
EE 4429, 4429L	Advanced Electronic Systems, and Lab	3 cr
EE or Technical Elective		3 cr

EE or Technical Elective		3 cr
ENGR 4496A	Project Design I	3 cr
Social Science or Humanities Course		3 cr
		Semester Total 16 cr

Spring Semester Senior year

EE 4418	Communication Systems	3 cr
EE 4475	Digital Signal Processing	3 cr
EE 4484	Signal Processing Laboratory	1 cr
EE or Technical Elective		3 cr
ENGR 4496B	Project Design II	3 cr
Social Science and Humanities Course		3 cr
		Semester Total 16 cr

Bachelor of Science in Computer Science

Educational Objectives for Degree Program in Computer Science

The goal of the Computer Science Program at Idaho State University is to provide students with a broad, yet rigorous Computer Science education, with emphasis in operating systems, computer organization and architecture, data structures and algorithms, software implementation, programming languages, 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 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 3000 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 3307, Professional and Technical Writing, within the first year of declaring the Computer Science major.

Key Courses

Mathematics:

MATH 1170	Calculus I	4 cr
MATH 1175	Calculus II	4 cr
MATH 2240	Linear Algebra	3 cr

Chemistry:

CHEM 1111, 1111L, and CHEM 1112, 1112L	General Chemistry I, II, and Labs	9 cr
OR		

Physics:

PHYS 2211, 2213, 2212, and 2214	Engineering Physics I, II	10 cr
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Computer Science:

CS 1181, 1181L	Computer Science and Programming I, and Lab	3 cr
CS 1182, 1182L	Computer Science and Programming II, and Lab	3 cr
CS/MATH 1187	Applied Discrete Structures	3 cr
CS 2282	Advanced Computer Programming	3 cr
CS 2263	Advanced Object-oriented Programming	3 cr

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 1102, Critical Reading and Writing	3 cr
Goal 2	COMM 1101, Principles of Speech	3 cr
Goal 3	MATH 1170, Calculus I	4 cr
Goals 4 and 5	are met by taking EITHER of the following sequences plus 2 additional courses in the physical and biological sciences	15 or 16 cr
	CHEM 1111, 1111L and 1112, 1112L. General Chemistry I and II, and Labs (9 cr)	
	OR	
	PHYS 2211-2214 Engineering Physics I, II, and Labs (10 cr)	
	Two additional courses* in the Physical and Biological sciences (6 cr)	
	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

*Please consult with a CS advisor for a list of approved courses.

Additional Mathematics Courses (10 credits):

MATH 1175	Calculus II	4 cr
MATH 2240	Linear Algebra	3 cr
MATH 3352	Introduction to Probability	3 cr

Major Core Requirements (53 credits)

Computer Science students must complete the following group of core courses:

CS 1181, 1181L	Computer Science and Programming I, and Lab	3 cr
CS 1182, 1182L	Computer Science and Programming II, and Lab	3 cr
CS/MATH 1187	Applied Discrete Structures	3 cr
CS 2263	Advanced Object-oriented Programming	3 cr
CS 2282	Advanced Computer Programming	3 cr
CS 3321	Fundamentals of Software Engineering	3 cr
CS 3385	Data Structures and Algorithm Analysis I	3 cr
CS 3386	Data Structures and Algorithm Analysis II	3 cr
CS 4451	Database Theory and Implementation	3 cr
CS 4460	Comparative Programming Languages	3 cr
CS 4475	Computer Architecture and Organization	3 cr
CS 4477	Operating Systems	3 cr
CS 4491	Computer Science Ethical-Societal Issues	3 cr
CS 4496A	Project Design I	3 cr
CS 4496B	Project Design II	3 cr
EE 2274	Introduction to Digital Systems	3 cr
ENGR 3360	Engineering Economics	2 cr
ENGL 3307	Professional and 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 4411	Intermediate Information Assurance***	3 cr
CIS 4485	Network and Communication Systems***	3 cr
CIS 4487	Software Systems Study of the Software Implementation Process***	3 cr
CIS 4491	Seminar in Computer Information Systems**	3 cr
CS 3331	Web Programming	3 cr
CS 3342	Computer Graphics	3 cr
CS 3343	Neural Networks	3 cr
CS 3344	Artificial Intelligence	3 cr
CS 4420	Cryptography and Security	3 cr
CS 4442	Graphical User Interfaces	3 cr
CS 4444	Image and Audio Processing	3 cr
CS 4445	Data Compression	3 cr
CS 4470	Parallel Processing	3 cr
CS 4480	Theory of Computation	3 cr
CS 4481	Compilers and Lexical Analysis	3 cr
CS 4487	Topics in Computer Science	3 cr
EE 3345	Signals and Systems	3 cr
EE 4413	Techniques of Computer-Aided Circuit Analysis and Design	3 cr
EE 4417	Probabilistic Signals and Systems	3 cr
EE 4427	Embedded Systems Engineering	3 cr
EE 4475	Digital Signal Processing	3 cr
EE 4494	Embedded Systems and Control Laboratory	1 cr
EE 4499	Special Topics**	3 cr
ENGR 3364	Engineering Numerical Techniques	3 cr
MATH 4441	Introduction to Numerical Analysis I	3 cr
MATH 4442	Introduction to Numerical Analysis II	3 cr

MATH 4465 Partial Differential Equations 3 cr
*Other choices may be approved by Computer Science advisors on an individual basis.

** With prior advisor approval.

***No more than 6 credits of business/CIS courses from this list may be applied toward degree requirements.

Additional Electives (14-15 credits)

1. Students must take enough additional elective courses to total at least 130 credits.
2. A minimum of 64 non-computing credits must be taken in meeting graduation requirements.
3. No more than a TOTAL of 6 credits in business courses, including courses from the Computer Information Systems Department, may be used to meet degree requirements.
4. Passing grades are required in all courses, and at least a 2.00 GPA is required for graduation.

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 1181, 1181L	Computer Science and Programming I, and Lab	3 cr
CS 1182, 1182L	Computer Science and Programming II, and Lab	3 cr
CS/MATH 1187	Applied Discrete Structures	3 cr
CS 2263	Advanced Object-oriented Programming	3 cr
CS 2282	Advanced Computer Programming	3 cr
MATH 1170	Calculus I	4 cr
MATH 1175	Calculus II	4 cr

Computing Electives:

Six upper division credits in Computer Science, Computer Information Systems, or Electrical Engineering, chosen with the approval of a Computer Science advisor.

Electrical Engineering Courses

EE 2240 Introduction to Electrical Circuits 3 credits. Passive circuit elements. DC circuits. Voltage and current sources. Circuit laws, theorems and node and loop analysis. Transients in RLC circuits. Introduction to AC circuits. Computer-aided analysis. PREREQ: MATH 1170. F

EE 2274 Introduction to Digital Systems 3 credits. Number systems; Boolean algebra fundamentals; system reduction, combinational

and sequential logic. PREREQ: CS/MATH 1187. COREQ: EE 2275. F

EE 2275 Introduction to Digital Systems Laboratory 1 credit. Laboratory experience in the construction of basic digital logic circuits and state machines. COREQ: EE 2274. F

EE 3325 Electromagnetics 4 credits. Vectors and fields, electrostatics, magnetostatics, electrodynamics, Maxwell's equations, boundary value problems, plane and guided waves. PREREQ: EE 3340, MATH 2275, and PHYS 2212; MATH 3360 recommended. F

EE 3329 Introduction to 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 3340. S

EE 3340 Fundamentals of Electrical Devices 3 credits. AC circuits. Design of passive and active filters. Three-phase circuits. Transformers. AC and DC machines. Computer-aided analysis. PREREQ: EE 2240. COREQ: EE 3342 and MATH 1175. S

EE 3342 Fundamentals of Electrical Devices Laboratory 1 credit. Laboratory course emphasizing basic electrical measurements and methods. COREQ: EE 3340. S

EE 3345 Signals and Systems 3 credits. Linear time-invariant systems, continuous and discrete; Fourier series, Fourier transforms, discrete Fourier transforms; Laplace transforms, z-transforms; state-space analysis. PREREQ: EE 3340. COREQ: MATH 3360. F

EE 4000 Senior Seminar 1 credit. Current topics in Electrical Engineering. PREREQ: Senior standing in Electrical Engineering. F

EE 4413 Techniques of Computer-Aided Circuit Analysis and Design 3 credits. Automatic formulation of equations and fundamental programming techniques pertinent to computer-aided circuit analysis, design, modeling. May include sensitivity calculations, system analogies, optimization. PREREQ: CS 1181, EE 3340, and EE 3342. D

EE 4416 Applied Engineering Methods 3 credits. Applied discrete and continuous probability, random variables, probability distributions, sampling, data description, parameter estimation, hypothesis testing, inference, correlation and linear and multiple regression. PREREQ: MATH 1170. S

EE 4418 Communication Systems 3 credits. Basic principles of analysis and design of modern analog and digital communication systems, including transmission and reception. PREREQ: EE 3329 and EE 3345. S

EE 4427 Embedded Systems Engineering 2 credits. Integration of algorithms, software and hardware to design real-time and embedded systems for signal processing and control. PREREQ: CS 4475. COREQ: EE 4427L. S

EE 4427L Embedded Systems Engineering Laboratory 1 credit. Design and implement embedded signal processing and control systems through the integration of algorithms, software, and hardware. COREQ: EE 4427. S

EE 4429 Advanced Electronics 2 credits. Introduction to operational amplifiers and their applications, current mirrors, active loads, differential amplifiers, feedback and stability, filters, oscillators, Schmitt triggers, power amplifiers and voltage regulators. PREREQ: EE 3329. COREQ: EE 4429L. F

EE 4429L Advanced Electronics Lab 1 credit. Transistor biasing, amplifiers and other basic analog circuit designs. COREQ: EE 4429. F

EE 4432 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 3329. D

EE 4433 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 4432. D

EE 4472 Electrical Machines and Power 3 credits. Theory and application of electrical machinery and transformers. Power and energy relationships in power systems. PREREQ: EE 3340 and EE 3342. COREQ: EE 4472L. F

EE 4472L Electrical Machines and Power Laboratory 1 credit. Experimental study of the fundamental physical phenomena and characteristics of transformers, induction motors, synchronous and direct current machines. COREQ: EE 4472. F

EE 4473 Automatic Control Systems 3 credits. Continuous-time control systems using both frequency-domain and state-space techniques. Topics include design methodology, performance specifications, analysis and design techniques. PREREQ: EE 3345 or ME 4405. S

EE 4474 Advanced Circuit Theory 3 credits. Methods of analog electrical circuit analysis and synthesis. Topics include signal flow graphs, multi-port networks, simulation techniques, and topological methods for formulation of network equations. PREREQ: EE 3340. D

EE 4475 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 3345. COREQ: EE 4484. S

EE 4476 Semiconductor Processing and Fabrication 3 credits. Silicon semiconductor processing and basic integrated circuit fabrication. Physics, chemistry and technology in basic processing steps in production of integrated circuits. PREREQ: PHYS 2212 or equivalent. D

EE 4478 Semiconductor Devices 3 credits. Operating principles of basic building blocks of modern silicon-based semiconductor devices to include p-n junctions, field effect transistors and bipolar junction transistors. PREREQ: PHYS 2212 or equivalent. D

EE 4479 Advanced Semiconductor Devices 3 credits. Review of semiconductor band theory. Opto-electronics, quantum mechanics, hetero-junctions, power and microwave semiconductor devices. PREREQ: EE 4478 or equivalent. D

EE 4482 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 3329. COREQ: EE 4473. D

EE 4484 Signal Processing Laboratory 1 credit. Design finite and infinite response digital filters in digital signal processing applications. COREQ: EE 4475. S

EE 4491 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 4473. D

Computer Science Courses

CS 1181 Computer Science and Programming I 2 credits. Problem solving methods and algorithm development with an emphasis on programming style. Lecture and laboratory. COREQ: CS 1181L; MATH 1147 or MATH 1160. F, S

CS 1181L Computer Science and Programming I Lab 1 credit. Assignments to apply principles from CS 1181. COREQ: CS 1181. F, S

CS 1182 Computer Science and Programming II 2 credits. Continuation of CS 1181, including such topics as data structures, sorts, searches, recursion, and object-oriented programming concepts. PREREQ: CS 1181. PREREQ OR COREQ: CS 1187 and MATH 1170. COREQ: CS 1182L. F, S

CS 1182L Computer Science and Programming II Lab 1 credit. Assignments to apply principles from CS 1182. COREQ: CS 1182. F, S

CS 1187 Applied Discrete Structures 3 credits. Discrete structures in CS and EE. Boolean algebra and logic; sets, functions, and relations; iteration, recursion, and induction; algorithms; programming in pseudocode; basic counting principles; graphs and trees; and other selected topics from discrete mathematics. Cross-listed as MATH 1187. PREREQ: CS 1181. S

CS 2263 Advanced Object-oriented Programming 3 credits. Advanced programming in a modern object-oriented language, different from the one used in CS 1181 and CS 1182; philosophy, application, and examples of object-oriented concepts and techniques; comprehensive survey of software-engineering design patterns. PREREQ: CS 1182. S

CS 2282 Advanced Computer Programming 3 credits. Further supervised programming experience, covering advanced features of the language used in CS 1182. Includes the use of a Unix-like operating system. PREREQ: CS 1182. F

CS 3321 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 2263 or CS 2282, and admission to major. F

CS 3331 Web Programming 3 credits. HTML, server- and client-side programming, web-based database programming. PREREQ: CS 2263. R2

CS 3342 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 2263 and MATH 2240. R2

CS 3343 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 2263, CS/MATH 1187, MATH 2275, and MATH 3352. R2

CS 3344 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 3386. R2

CS 3385 Data Structures and Algorithm Analysis I 3 credits. Analysis and design of non-numeric algorithms which act on data structures. PREREQ: CS 2263 or CS 2282, and admission to major, and either CS/MATH 1187 or MATH 2240. F

CS 3386 Data Structures and Algorithm Analysis II 3 credits. Continuation of CS 3385. PREREQ: CS 3385. S

CS 4420 Computer Security and Cryptography 3 credits. Public key and private key cryptography, key distribution, cryptographic protocols, requisite mathematics and selected topics in the development of security and cryptography. PREREQ: CS 3385. R2

CS 4442 GUI Development 3 credits. Planning and construction of Graphical User Interfaces and discussion of essential software engineering concepts. Includes the use of a modern toolkit language. COREQ: CS 3385. R2

CS 4444 Image and Audio Processing 3 credits. Image/audio acquisition, quantization, spatial and spectral filters, sharpening, smoothing, restoration, compression, segmentation, Fourier and Wavelet transforms. PREREQ: CS/MATH 1187, MATH 3352, and MATH 3360. R2

CS 4445 Data Compression 3 credits. A survey of modern techniques of data compression, both lossy and loss-less, and encryption. COREQ: CS 3386. R2

CS 4451 Database Theory and Implementation 3 credits. Data models, relational algebra, SQL, data storage, index structures, query compilation and execution, concurrency control. PREREQ: CS 2263 and CS 3385. COREQ: CS 3386. S

CS 4460 Comparative Programming Languages 3 credits. Design of historical and contemporary programming languages, concentrating on promoting understanding of structural organization, data structures and typing, name structures, and control structures. PREREQ: CS 3385. COREQ: CS 4475. F

CS 4470 Parallel Processing 3 credits. Topics in high-performance computing: parallel architectures, SIMD, MIND, SMP, NUMA models, message passing, cache coherency issues, MPI, PVM, parallel programming languages, cluster and grid approaches, applications and experience programming on a cluster. COREQ: CS 3385. R2

CS 4475 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 2274. F

CS 4477 Operating Systems 3 credits. Processes description and control, threads, concurrency, memory management scheduling, I/O and files, distributed systems, security, networking. PREREQ: CS 2263 and CS 4475. S

CS 4480 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 3385. R2

CS 4481 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 3386. R2

CS 4487 Topics in Computer Science 3 credits. Selected topics in Computer Science will be chosen depending on the instructor's interests. PREREQ: CS 3386. D

CS 4491 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 4496A 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 4496A. PREREQ: Approval of application for admission to course. F

CS 4496B 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 4496B. PREREQ: CS 4496A. S

Department of Mechanical and Nuclear Engineering

Interim Chair and Professor: Imel
Associate Chair and Professor: Kunze

MECHANICAL ENGINEERING:

Professors: Jacobsen, Schoen
Associate Professors: Wabrek, Williams
Assistant Professor: Perez
Associate Lecturer: Hofle

NUCLEAR ENGINEERING:

Research Professor and Director of Institute of Nuclear Science and Engineering: Lineberry
Research Assistant Professor: Dunzik-Gougar
Assistant Lecturer: Gansauge
Emeritus Faculty: Wilson

Educational Objectives for Degree Program in Mechanical Engineering

Five years after they graduate, our Mechanical Engineering graduates should:

- **Professional and Social Responsibility** – demonstrate professionalism and ownership of their work, and be an active and positive influence in their community.
- **Professional Leadership** – balance the relationship between business and engineering and interface with multidisciplinary teams to achieve the combined objective.
- **Career Development and Professional Growth** – pursue life-long learning, professional affiliations, and increasing responsibility in the workplace.

Declaring a Major in Mechanical Engineering

Prior to admittance to the professional program and formally declaring Mechanical Engineering as a major, a student is classified as a "pre-engineering student." To become eligible for admission into the Mechanical Engineering Program, a student must:

(1) have completed ALL 9 of the "key courses" listed below with a minimum grade of "C-" in each course,

(2) have at least a 2.0 overall GPA.

Mechanical engineering students are not eligible to enroll in any upper division [3000-level or above] College of Engineering courses prior to admission to the Program.

Key Courses

CHEM 1111, 1111L	General Chemistry I, and Lab	5 cr
ENGR 1120	Introduction to Engineering	2 cr
ENGR 1165	Structured Programming	2 cr
ENGR 2210	Engineering Statics	3 cr
MATH 1170	Calculus I	4 cr
MATH 1175	Calculus II	4 cr
ME 1105	Solid Modeling	3 cr
PHYS 2211	Engineering Physics	4 cr
PHYS 2212	Engineering Physics	4 cr

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 1175	Calculus II	4 cr
MATH 2240	Linear Algebra	3 cr
MATH 2275	Calculus III	4 cr
MATH 3360	Differential Equations	3 cr

Mechanical Engineering Course Requirements (77 credits):

ENGR 1120	Introduction to Engineering	2 cr
ENGR 1165	Structured Programming	2 cr
ENGR 1166	Symbolic Programming	1 cr
ENGR 2210	Engineering Statics	3 cr
ENGR 2220	Engineering Dynamics	3 cr
ENGR 2223,2224	Materials and Measurements, and Lab	4 cr
EE 2240	Introduction to Electrical Circuits	3 cr
ENGR 3307	Thermodynamics	3 cr
EE 3340, 3342	Fundamentals of Electrical Devices, and Lab	4 cr
ENGR 3350	Mechanics of Materials	3 cr
ENGR 3360	Engineering Economics	2 cr
ENGR 4496A	Project Design I	3 cr
ENGR 4496B	Project Design II	3 cr
ME 1105	Solid Modeling	2 cr
ME 3341	Fluid Mechanics	3 cr
ME 4416	Thermal Power Cycles	3 cr
ME 4443	Thermal Fluids Laboratory	1 cr
ME 4476	Heat Transfer	3 cr
ME 3320	Kinematics and Dynamics	3 cr
ME 3323	Machine Design	3 cr
ME 4405	Measurement Systems Design	3 cr
ME 4406	Measurement Systems Laboratory	1 cr
ME 4440	Mechanical Vibrations	3 cr

ME 4465 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.

For students interested in focusing their ME degree in the **Biomedical** area, suggested electives are:

BIOL 3301, 3301L – Anatomy and Physiology
 BIOL 3302, 3302L – Anatomy and Physiology
 PTOT 4401 – Clinical Kinesiology and Biomechanics
 PE 3302/3302L – Biomechanics
 PE 4482 – Mechanical Analysis of Human Movement

For students interested in a focusing their ME degree in the **Nuclear** area, suggested electives are:

ENGR 4421 or MATH 4421 – Advanced Engineering Math I
 NE 4402 – Introduction to Nuclear Engineering
 NE 4419 – Energy Systems and Resources
 NE 4444 – Nuclear Fuel Cycles
 NE 4445 – Neutron Reactions and Transport

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 1165/1167 and ENGR 2223/2224 are considered single key courses that are taken concurrently.)

Key Courses

MATH 1170	Calculus I	4 cr
MATH 1175	Calculus II	4 cr
CHEM 1111, 1111L	General Chemistry I, and Lab	5 cr
PHYS 2211, 2212	Engineering Physics I, II	8 cr
ENGR 1105	Engineering Graphics	2 cr
ENGR 1120	Introduction to Engineering	2 cr
ENGR 1165, 1167	Structured Programming, and Engineering and Scientific Programming	3 cr
ENGR 2210	Engineering Statics	3 cr
ENGR 2220	Engineering Dynamics	3 cr
ENGR 2223, 2224	Materials and Measurements, and Laboratory	4 cr
EE 2240	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 3000 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 1175	Calculus II	4 cr
MATH 2240	Linear Algebra	3 cr
MATH 2275	Calculus III	4 cr
MATH 3360	Differential Equations	3 cr

Engineering Courses (50 credits)

ENGR 1105	Engineering Graphics	2 cr
ENGR 1120	Introduction to Engineering	2 cr
ENGR 1165	Structured Programming	2 cr
ENGR 1167	Engineering and Scientific Programming	1 cr
ENGR 1190	Energy and Nuclear Power	2 cr
ENGR 2210	Engineering Statics	3 cr
ENGR 2220	Engineering Dynamics	3 cr
ENGR 2223, 2224	Materials and Measurements, and Laboratory	4 cr
EE 2240	Introduction to Electrical Circuits	3 cr
ENGR 3307	Thermodynamics	3 cr
EE 3340	Fundamentals of Electrical Devices	3 cr
EE 3342	Fundamentals of Electrical Devices Laboratory	1 cr
ENGR 3350	Mechanics of Materials	3 cr
ENGR 3361	Engineering Economics and Management	3 cr
ENGR 3364	Engineering Numerical Techniques	3 cr
EE 4416	Applied Engineering Methods	3 cr
ENGR 4421	Advanced Engineering Mathematics I	3 cr
ENGR 4496A	Project Design I	3 cr
ENGR 4496B	Project Design II	3 cr

Nuclear Engineering Required Courses (27 credits)

ME 3341	Fluid Mechanics	3 cr
ME 4443	Thermal Fluids Laboratory	1 cr
ME 4476	Heat Transfer	3 cr
NE 4402	Introduction to Nuclear Engineering	3 cr
NE 4419	Energy Systems and Resources	3 cr
NE 4445	Neutron Reactions and Transport	3 cr
NE 4446	Analysis and Design of Nuclear Fuel Cycle Systems	3 cr
NE 4447	Nuclear Systems Laboratory	1 cr
NE 4451	Nuclear Seminar	1 cr
PHYS 4416	Radiation Detection and Measurement	3 cr

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 1105 Solid Modeling 3 credits. Introduction to the fundamentals of Solid Modeling. Sketching, features, modeling, assemblies and drawings. PREREQ: MATH 1147. F, S

ME 3320 Kinematics and Dynamics of Machinery 3 credits. Kinematic analysis and design of cams, gears, and linkages; velocity, acceleration and force analysis; kinematic synthesis; balancing; analysis by complex numbers; computer-aided analysis and synthesis. PREREQ: ENGR 1166, ENGR 2220, and MATH 2240. F

ME 3323 Machine Design 3 credits. Design of mechanical components subject to static and fatigue loads. Design using screws, fasteners, springs, bearings, and welds. Computer-aided design using finite element methods. PREREQ: ENGR 3350 and ME 3320. S

ME 3341 Fluid Mechanics 3 credits. Fluid statics, incompressible fluid flow, open channel flow, compressible fluid flow, pipe flow, flow measurements, pumps, valves, other devices. PREREQ: ENGR 2220 and MATH 3360. S

ME 3353 Manufacturing Processes 3 credits. Production techniques and equipment. Casting, molding, pressure forming, metal removal, joining and assembly, automation and materials handling. Field trips. PREREQ: ENGR 2223 and ENGR 2224. COREQ: ME 3353L. D

ME 3355 System Dynamics 3 credits. Modeling and representations of dynamic 3-dimensional physical systems emphasizing rigid bodies: transfer functions, block diagrams, state equations. Transient response. PREREQ: ENGR 2220 and MATH 3360. D

ME 4405 Measurement Systems Design 3 credits. Introduction to instrumentation systems analysis and design, including statistical analysis, system modeling, actuators, transducers, sensor systems, signal transmission, data acquisition, and signal conditioning. PREREQ: EE 3340, EE 3342, and MATH 3360. F

ME 4406 Measurement Systems Laboratory 1 credit. Principles of measurement, measurement standards and accuracy, detectors and transducers, digital data acquisition principles, signal conditioning systems and readout devices, statistical concepts in measurement, experimental investigation of engineering systems. COREQ: ME 4405. F

ME 4416 Thermal Power Cycles 3 credits. Application of thermodynamics to design of systems for conversion of thermal energy to power by various power cycles. PREREQ: ENGR 3307. F

ME 4425 Mechatronics 3 credits. Basic kinematics, sensors, actuators, measurements, electronics, microprocessors, programmable logic controllers, feedback control, robotics and intelligent manufacturing. PREREQ: EE 3340, EE 3342, and MATH 3360. D

ME 4440 Vibration Analysis 3 credits. Free vibration and forced response of single and multiple degree of freedom systems, normal modes, random vibrations, discrete, lumped mass, and continuous systems. Vibration control techniques. PREREQ: MATH 3360. PREREQ OR COREQ: ME 3323. S

ME 4443 Thermal Fluids Laboratory 1 credit. Measurement of thermal and fluid properties, experiments on fluid flow and heat transfer systems. PREREQ: ME 3341. COREQ: ME 4476. S

ME 4451 Compressible Fluid Flow 3 credits. Fundamentals and practical applications of compressible fluid flow and gas dynamics; techniques for isentropic friction, heat addition, isothermal flow, shock wave analysis, propagation, expansion waves, reflection waves. PREREQ: ME 3341. D

ME 4465 Thermal Fluid Systems Design 3 credits. Application of engineering concepts and principles to the design of thermal and fluid systems, including economic, environmental, sustainability, and societal considerations. PREREQ: ME 4476. S

ME 4476 Heat Transfer 3 credits. Principles and engineering applications of heat transfer. Analysis of conduction, convection and radiation heat transfer. Design of heat exchangers. PREREQ: ME 3341. F

Nuclear Engineering Courses

NE 4402 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 1190 and PHYS 2212. COREQ: ENGR 3307 and MATH 3360. F

NE 4419 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 3307 and MATH 3360. COREQ: EE 3340 and EE 3342. S

NE 4444 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 4402. D

NE 4445 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 4402. COREQ: ENGR 3364 and ENGR/MATH 4421. S

NE 4446 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 4445. F

NE 4447 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 4445 and PHYS 4416. F and D

NE 4451 Nuclear Seminar 1 credit. Current topics in nuclear science and engineering. PREREQ: Senior standing or permission of instructor. Graded S/U. S, D

NE 4458 Monte Carlo Methods and Applications 3 credits. Basics of the application of stochastic methods to calculate the transport of neutrons, photons, and other sub-atomic particles. Includes introduction to the MCNP code, and sample application problems in both nuclear reactor design and in applications such as radiation beams used for cancer therapy. F

NE 4487 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 3360 and PHYS 2212. 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 Meridian. 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, Meridian, 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 Professor: Phillipp

Researchers and Grant Coordinators:

Senior Research Associates: Kirkwood,
Spearman
Research Associates: Bodily-Roan,
Stewart-Burch
Grant Project Coordinators: Bennett,
Green

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
 Meridian 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, Mladenka, Murphy

Clinical Assistant Professors: Brook,

Damstrom, Goodwin, Hewett,

Jardine-Dickerson, Klaus, Marquette,

McCarthy, Ovit, Pesnell, Punkoney,

Reiland, Renn

Clinical Instructor: Quiroz

Emeritae: Jacobson, McLaughlin,

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 in a variety of health care settings. Students are provided an opportunity to learn and to practice nursing in special learning laboratories and in a variety of settings where people need nursing care. 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 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.

The courses listed below reflect a curriculum which is responsive to national trends and the health care needs of Idaho citizens. The focus in this curriculum is on multiple dimensions of client care, including the promotion of health as well as the alleviation of illness.

B. Accelerated Program

This is an accelerated program appropriate for 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. (www.isu.edu/nursing)

C. Completion Programs

Associate Degree and Diploma Registered Nurses - Bachelor of Science: This is a program appropriate for Registered Nurses who wish to complete a baccalaureate degree in nursing. (www.isu.edu/nursing)

Licensed Practical Nurses – Bachelor of Science: This is a program appropriate for Licensed Practical Nurses who wish to complete a baccalaureate degree in nursing. (www.isu.edu/nursing)

Admission to the Traditional 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 have a minimum combined GPA of 3.0 in the Set A prerequisite courses listed below to be eligible to make application to the nursing program. Prospective students must complete the Set A and Set B prerequisite courses listed below, or equivalents, with a grade of “C” (75 percent) or better. Failure to do so will result in revocation of program admission. Set A prerequisite courses must be completed at the time the application is submitted. Set B prerequisite courses must be completed before starting in the nursing program in January, but not necessarily before the application is submitted.

a. Set A Prerequisite Courses

One of the following:

ANTH 2237	Peoples and Cultures of the Old World	3 cr
ANTH 2238	Peoples and Cultures of the New World	3 cr
ANTH 2239	Latino Peoples and Cultures	3 cr
ANTH 1100	General Anthropology*	3 cr
SOC 1101	Introduction to Sociology*	3 cr

*(these fulfill Goal 12, thus goal 9 or 10 still required)

Plus all of the following:

BIOL 1101,1101L	Biology I, and Lab	4 cr
BIOL 2221,2221L	Introductory Microbiology, and Lab	3 cr
BIOL 3301, 3301L	Anatomy and Physiology, and Lab	4 cr
BIOL 3302, 3302L	Anatomy and Physiology, and Lab	4 cr
CHEM 1101	Introduction to General Chemistry	3 cr
	OR	
CHEM 1111, 1111L	General Chemistry I, and Lab	5 cr
HCA/HE 2210	Medical Terminology and Communication	2 cr
PSYC 1101	Introduction to General Psychology	3 cr
PSYC 2225	Child Development	3 cr

b. Set B Prerequisite Courses:

BIOL 3305	Introduction to Pathobiology	3 cr
CHEM 1102	Introduction to Organic and Biochemistry	3 cr
CHEM 1103	Introduction to General, Organic, and Biochemistry Laboratory I	1 cr
NTD 3340	Nutrition for Health Professionals	3 cr

2. Application

Students (traditional, accelerated, and LPN) will be required to submit an application that includes documentation of completion of:

a. Set A prerequisite courses;

b. Set B prerequisite courses (completed or in progress);

c. Official transcripts of courses taken at other colleges or universities;

d. Any petitions completed for the School of Nursing;

e. Test of Essential Academic Skills (TEAS)

i. TEAS entrance examination must be completed between July 1 and the September 15 deadline. The TEAS score is received upon completion of the test. The TEAS may be taken once only 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 Background History Evaluation

g. Health Certification Requirements

h. Current Cardio-pulmonary Resuscitation (CPR) Certification

i. Health Care Education, Employment, and Volunteer Service Résumé

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 50 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 résumé--up to 20 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 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.

ANTH 2237	Peoples and Cultures of the Old World	3 cr
	OR	
ANTH 2238	Peoples and Cultures of the New World	3 cr
	OR	
ANTH 2239	Latino Peoples and Cultures	3 cr
	OR	
ANTH 1100	General Anthropology*	3 cr
	OR	
SOC 1101	Introduction to Sociology*	3 cr
BIOL 1101,1101L	Biology I, and Lab	4 cr
CHEM 1101	Introduction to General Chemistry	3 cr
CHEM 1102,1103	Introduction to Organic and Biochemistry, and Lab	4 cr
MATH 1153	Introduction to Statistics (MATH 1108 prerequisite)	3 cr

PSYC 1101 Introduction to General Psychology 3 cr

**Note: ANTH 1100 and SOC 1101 fulfill Goal 12, thus Goal 9 or 10 is still required. See University General Education Requirements for goals not met by major requirements. CHEM 1101 is waived if student receives a score of 3 or higher on the Advanced Placement Chemistry test in high school or if student challenges CHEM 1101 and passes with a grade of "C" or better.*

Other University Courses Required for Major in Nursing

BIOL 2221,2221L Introduction to Microbiology, and Lab 4 cr
 BIOL 3301,3301L Anatomy and Physiology, and Lab 4 cr
 HCA 2210 Medical Terminology and Communication 2 cr
 NTD 3340 Nutrition for Health Professionals 3 cr
 PHIL 2230 Bioethics 3 cr
 PSCI 3315 Pharmacology for Nursing 4 cr
 PSYC 2225 Child Development 3 cr
 Elective 2 cr

Required Nursing Courses for Traditional Students

NURS 2200 Health Assessment 3 cr
 NURS 2220 Introduction to Professional Nursing 2 cr
 NURS 2262, 2263 Fundamentals of Nursing, and Lab 6 cr
 NURS 3330 Evidence-Based Nursing Practice 3 cr
 NURS 3352 Nursing Care of Children 3 cr
 NURS 3354 Medical-Surgical Nursing I 3 cr
 NURS 3351 Medical-Surgical Nursing I Practicum 4 cr
 NURS 3372 Nursing Care of the Older Adult 2 cr
 NURS 3374 Medical-Surgical Nursing II 4 cr
 NURS 3371 Medical-Surgical Nursing II Practicum 4 cr
 NURS 4412 Nursing Care of Childbearing Families and Women 3 cr
 NURS 4413 Nursing Care of Childbearing Families and Women Practicum 2 cr
 NURS 4414 Psych-Mental Health Nursing Concepts 3 cr
 NURS 4415 Psych-Mental Health Practicum 2 cr
 NURS 4416 Health Care Informatics for Nursing 1 cr
 NURS 4418, 4418L Leadership and Management, and Lab 5 cr
 NURS 4426, 4426L Community Health Nursing, and Lab 5 cr
 NURS 4490 Senior Practicum 2 cr

Required Nursing Courses for LPNs and RNs Only

NURS 2203 Health Assessment Practicum (for LPNs only) 3 cr
 Taken in place of NURS 2263
 NURS 3375 Clinical Practicum (for LPNs only) 2 cr
 Taken in place of NURS 3371
 NURS 4405 Socialization into Professional Nursing (LPNs and returning RNs only) 1 cr
 Taken in place of NURS 2220
 NURS 4424 Leadership in Communities for Registered Nurses (for returning RNs only) 2 cr
 Taken in place of NURS 4422
 NURS 4425 Leadership in Communities for Registered Nurses Practicum (Returning RNs only) 3 cr
 Taken in place of NURS 4423

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.

TRADITIONAL CURRICULUM PATTERN*

Freshman (summer semester)

BIOL 1101, 1101L Biology I, and Lab 4 cr
 MATH 1108 Intermediate Algebra 3 cr
 TOTAL SUMMER SEMESTER 7 cr

Freshman (fall semester)

BIOL 3301,3301L Anatomy and Physiology, and Lab 4 cr
 CHEM 1101 Introduction to General Chemistry 3 cr
 ENGL 1101 English Composition 3 cr
 HCA 2210 Medical Terminology and Communication 2 cr
 PSYC 1101 Introduction to General Psychology 3 cr
 TOTAL FALL SEMESTER 15 cr

Freshman (spring semester)

BIOL 2221,2221L Introduction to Microbiology, and Lab 4 cr
 BIOL 3302,3302L Anatomy and Physiology, and Lab 4 cr
 COMM 1101 Principles of Speech 3 cr
 PSYC 2225 Child Development 3 cr

Choose one:

ANTH 2237 People and Cultures of the Old World 3 cr
 ANTH 2238 People and Cultures of the New World 3 cr
 ANTH 2239 Latino Peoples and Cultures 3 cr
 ANTH 1100 General Anthropology 3 cr
 SOC 1101 Introduction to Sociology 3 cr
 TOTAL SPRING SEMESTER 17 cr

Sophomore (fall semester)

BIOL 3305 Introduction to Pathobiology 3 cr
 CHEM 1102, 1103 Introduction to Organic and Biochemistry, and Lab 4 cr
 NTD 3340 Nutrition for Health Professionals 3 cr
 ENGL 1102 Critical Reading and Writing (Goal 1) 3 cr
 Goal 11 3 cr
 TOTAL FALL SEMESTER 16 cr

Sophomore (spring semester)

NURS 2200 Health Assessment 3 cr
 NURS 2220 Introduction to Professional Nursing 2 cr
 NURS 2262 Fundamentals of Nursing 3 cr
 NURS 2263 Fundamentals of Nursing Lab 3 cr

PSCI 3315 Pharmacology for Nursing 4 cr
 TOTAL SPRING SEMESTER 15 cr

Junior (fall semester)

MATH 1153 Introduction to Statistics 3 cr
 NURS 3354 Medical Surgical Nursing I 3 cr
 NURS 3351 Medical Surgical Nursing I Practicum 4 cr
 NURS 3372 Nursing Care of the Older Adult 2 cr
 Goal 6, 7, or 8 3 cr
 TOTAL FALL SEMESTER 15 cr

Junior (spring semester)

NURS 3330 Evidence-based Nursing Practice 3 cr
 NURS 3352 Nursing Care of Children 3 cr
 NURS 3374 Medical Surgical Nursing II 4 cr
 NURS 3371 Medical Surgical Nursing II Practicum 4 cr
 TOTAL SPRING SEMESTER 14 cr

Senior Year

Three options exist; please consult your advisor for the best option to fit your schedule.

NURS 4412 Nursing Care of Childbearing Families and Women 3 cr
 NURS 4413 Nursing Care of Childbearing Families and Women Practicum 2 cr
 NURS 4414 Psych-Mental Health Nursing Concepts 3 cr
 NURS 4415 Psych-Mental Health Practicum 2 cr
 NURS 4416 Health Care Informatics for Nursing 1 cr
 NURS 4418, 4418L Leadership and Management, and Lab 5 cr
 NURS 4426, 4426L Community Health Nursing, and Lab 5 cr
 NURS 4490 Senior Practicum 2 cr
 GOAL 6, 7, or 8 (Choose a different goal than chosen earlier) 3 cr
 PHIL 2230 Bioethics 3 cr
 TOTAL FOR THE YEAR 29 cr

*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.

Nursing Courses

NURS 2200 Health Assessment 3 credits. Assessment of biological and psychosocial health status and health promotion needs of clients through collecting and interpreting health history and physical assessment data. PREREQ: Acceptance into Nursing program. COREQ: NURS 2262 and NURS 2263. S

NURS 2203 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. S

NURS 2204 Concepts of Nursing Practice 4 credits. Introduces fundamental nursing skills and analyzes theoretical foundations, historical and social forces affecting the evolution of the nursing profession and their impact on health care. The professional nurse's role, health promotion, the nursing process, and teaching and learning are presented through discussion and simulation. PREREQ: Acceptance into Meridian Fast Track Nursing Program. COREQ: NURS 2204L. S

NURS 2204L Concepts of Nursing Practice Lab 3 credits (9 contact hours). Application and practice of assessment and fundamental nursing skills. PREREQ: Acceptance into Meridian Fast Track Nursing program. COREQ: NURS 2204. S

NURS 2220 Introduction to Professional Nursing 2 credits. Social forces affecting professional nursing are analyzed in the context of their impact on health care. Concepts of health promotion and adaptation of clients of all ages are presented. S

NURS 2262 Fundamentals of Nursing 3 credits. Provides the theoretical basis for fundamental nursing skills, nursing process and health promotion as they relate to health care needs of clients. PREREQ: Acceptance into Nursing program. COREQ: NURS 2200 and NURS 2263. S

NURS 2263 Fundamentals of Nursing Lab 3 credits (9 contact hours). Application and practice of assessment and fundamental nursing skills. PREREQ: Acceptance into Nursing program. COREQ: NURS 2200 and NURS 2262. S

NURS 3330 Evidence-Based Nursing Practice 3 credits. An introduction to nursing research and evidence-based practice with emphasis on the critical evaluation of existing nursing literature for application to nursing practice and on the relationship among research, evidence-based practice, and professional nursing practice. PREREQ: MATH 1153 and Junior year professional status or RN licensure. S

NURS 3351 Medical Surgical Nursing Practicum I 4 credits (12 contact hours). Introduction to the nursing care of clients in acute and ambulatory/community settings utilizing the nursing process. PREREQ: Junior year professional status. F

NURS 3352 Nursing Care of Children 3 credits. Application of the nursing knowledge and health promotion in the well child as well as acutely, chronically and terminally ill children and their families to achieve maximum potential for daily living. PREREQ: Junior year professional status. S

NURS 3354 Medical Surgical Nursing I 3 credits. Introduction to the theory and process focusing on care of clients with alteration in health status, wellness, and/or restoration of health, including applied drug therapy. PREREQ: Junior year professional status. F

NURS 3371 Medical Surgical Nursing II Practicum 4 credits (12 contact hours). Application of the nursing process to the care of clients in acute and ambulatory/community care settings. PREREQ: Junior year professional status. S

NURS 3372 Nursing Care of the Older Adult 2 credits. Use of geriatric nursing principles to help older adults. PREREQ: Junior year professional status. F

NURS 3374 Medical Surgical Nursing II 4 credits. Theory and process focusing on the application of care to clients with alterations in health status, wellness, and/or restoration of health, including applied drug therapy. PREREQ: Junior year professional status. S

NURS 3375 Clinical Practicum 2 credits (6 contact hours). Clinical section in selected

medical surgical areas for Licensed Practical Nurses. Application of the nursing process to the care of complex medical surgical patients. PREREQ: Admission to the nursing program and permission of instructor. COREQ: NURS 3374. D

NURS 3381 Care of the Acutely Ill Child and Family 1-2 credits. Application of the nursing process, in providing care for children and their families with an emphasis on acute illnesses or acute episodes of chronic illness in a tertiary care setting. A nursing elective course. PREREQ: Nursing major, junior or senior standing, and permission of instructor. Su

NURS 4405 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 4412 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, Su

NURS 4413 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 4414 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, Su

NURS 4415 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, Su

NURS 4416 Health Care Informatics--Nursing 1 credit. Introduction to the management of health care information through technology with an emphasis on nursing applications. Current issues and trends will be examined along with skills for accessing, managing, and critically examining information. PREREQ: Senior year professional status. F, S

NURS 4417 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: PSYC 4417, SOWK 4417, CSED 4417. PREREQ: Permission of instructor. S

NURS 4418 Leadership and Management 3 credits. Fundamental knowledge of leadership and management theories to prepare professional nurses to function in any health care setting. Includes personal career development principles. PREREQ: Senior Year Professional Status. COREQ: NURS 4418L. F, S, Su

NURS 4418L Leadership and Management Lab 2 credits. Application of leadership and management theories to prepare professional nurses to function in any health care setting. PREREQ: Senior Year Professional Status. COREQ: NURS 4418. F, S, Su

NURS 4424 Leadership in the Community for Registered Nurses 2 credits. Provides leadership and community theory to registered nurses who will be prepared to function in leadership roles in the changing health care environment. PREREQ: RN licensure. F

NURS 4425 Leadership in the Community for Registered Nurses Practicum 3 credits (9 contact hours). Integrates Leadership/management and Community Nursing principles to prepare the registered nurse to function in the changing health care environment. PREREQ: RN licensure. F

NURS 4426 Community Health Nursing 3 credits. Fundamentals of community health nursing. Use of the nursing process to assess, plan, implement and evaluate strategies to improve the health of the individuals, families and community. PREREQ: Senior year professional status. COREQ: NURS 4426L. F, S, Su

NURS 4426L Community Health Nursing Lab 2 credits. Application of fundamentals of community health nursing. Use of the nursing process to assess, plan, implement and evaluate strategies to improve the health of the individuals, families and community. PREREQ: Senior year professional status. COREQ: NURS 4426. F, S, Su

NURS 4428 Holistic Health Care 2 credits. Introduction of world health beliefs, evolving practices complementary to western medicine and health care. A nursing elective course. Also offered for no credit as Holistic Health, Idaho State University Continuing Education/Special Programs. S

NURS 4430 Nursing Care of the Critically Ill Adult and Family 3 credits. Theoretical application of the nursing process with a focus on care of critically ill adults and families with an emphasis on acute illness or acute episodes of chronic illness. A nursing elective course. PREREQ: Nursing major, senior standing, and permission of instructor. D

NURS 4431 Nursing Care of Critically Ill Adult and Family Practicum 2 credits. Clinical application of the nursing process with a focus on care of critically ill adults and families with an emphasis on acute illness or acute episodes of chronic illness. A nursing elective course. PREREQ: Nursing major, senior standing, and permission of instructor. D

NURS 4480 Genetics for Health Care 3 credits. An in-depth, interdisciplinary review of the impact of genetics on patients and patient care and the biological, social, ethical and legal issues surrounding genetics and genomics. Cross-listed as CSED 4480. Su

NURS 4490 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 4491 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: Kangas
 Professors: Seikel, Sorensen
 Associate Professors: Flipsen, Mercado
 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
 Affiliate Faculty: Allen, Belknap, Bitton,
 Clough, Dalton, Duggan,
 Elsethagen, Ennis, Freeby, Goodwin,
 Grunig, Heinz-Unger, Kerr, Maloff,
 Matkin, McGee, Milbrandt, Mill,
 D. Miller, Morgan, Motley,
 O'Donnell, Olenick, Pilley, Ross,
 Ruffing, Springer, Stevens, Strong,
 Sturmak, Thomas, Wood
 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 in Pre-Speech-Language Pathology

The areas of Speech-Language Pathology and Audiology have foundations grounded in basic communicative behavior. Included in these emphases are the study of biological and social sciences, phonetics, acoustics, neurology, development of normal speech, language, and hearing abilities as

well as deviations from normal communicative processes. Students are introduced to assessment and treatment procedures at the undergraduate level. The Bachelor of Science Degree emphasizes prepare students to apply to graduate programs in either Speech-Language Pathology or Audiology. 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 Meridian campuses. Many departmental classes are taught via distance learning technology, with clinical and academic faculty in both sites. Students should note that admission to graduate programs is competitive.

The combined bachelor's and master's programs in Speech-Language Pathology, and the bachelor's and clinical doctorate programs in Audiology are designed to prepare students to meet the academic and clinical requirements for the Idaho Department of Education Certificate for Speech-Language Pathologist or Audiologist, state licensing, and the Certificate of Clinical Competence issued by the American Speech-Language 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 and Disorders.

Admission to Junior Level Classes

Prospective students are expected to have a cumulative GPA of 3.0 or better after completing 40 semester hours before registering for CSED 3321 and/or CSED 3330. Interested students with GPAs above 2.75 may petition the department chair to enroll in junior level courses through a letter and supporting documentation.

Junior Transfer Programs

It is strongly recommended that students interested in the Boise undergraduate program complete their general education requirements at Boise State University, Idaho State University, or other accredited college or university before transferring to Idaho State University-Boise. It is recommended that prospective transfer students complete CSED 2205 in the Spring 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. Students interested in the undergraduate program at Idaho State University-Boise should call (208) 373-1725 for additional information..

Preprofessional Coursework

Students with undergraduate degrees in disciplines other than Communication Sciences & Disorders, and Education of the Deaf 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 and Disorders home page at <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 Meridian 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 Meridian 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 and Disorders. 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

The following courses are required in addition to the University's General Education Requirements. Students must complete Goals 4 and 5 as part of the General Education Requirements, and choose either the Pre-Audiology Emphasis or the Pre-Speech-Language Pathology Emphasis.

Required Departmental Courses

CSED 1126	Deaf Studies	1 cr
CSED 2205	Introduction to Communication Differences and Disorders	3 cr
CSED 2227	Basic Sign I*	2 cr
CSED 2228	Basic Sign II*	2 cr
CSED 3315	Introduction to Clinical Processes	3 cr
CSED 3321, 3321L	Clinical Phonetics and Phonology, and Lab	4 cr
CSED 3325	Speech Sound Development and Disorders	3 cr
CSED 3330	Language Science and Development	3 cr
CSED 3341	Audiometry and Hearing Science	3 cr
CSED 4405	Neurological Bases of Communication Disorders	3 cr
CSED 4417	Interdisciplinary Evaluation Team	1 cr
CSED 4435, 4435L	Speech and Hearing Sciences, and Lab	4 cr
CSED 4445	Aural Rehabilitation	3 cr
CSED 4460	Educational Audiology	3 cr

Students may substitute CSED 1151, 1152, 2251, and 2252 (12 credits) for CSED 2227 and 2228.

Other Required Courses

BIOL 1101, 1101L	Biology I, and Lab	4 cr
BIOL 3301, 3301L	Anatomy and Physiology, and Lab	4 cr
BIOL 3302, 3302L	Anatomy and Physiology, and Lab	4 cr
ENGL 3307	Professional and Technical Writing	3 cr
HCA 1110	Introduction to the Allied Health Professions	2 cr
MATH 1153	Introduction to Statistics	3 cr
PSYC 1101	Introduction to General Psychology	3 cr
PSYC 2225	Child Development	3 cr
	OR	

PSYC 3332	Psychology of Adolescence	3 cr
SOC 2248	Social Diversity	3 cr

Recommended Course

ANTH/ENGL 1107	Nature of Language	3 cr
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Students must complete Science goals 4 and 5 as part of the General Education Requirements.

Pre-Audiology Emphasis

Students choosing the Emphasis in Pre-Audiology must complete the degree requirements above, the Required Courses listed below, and one of the three Options listed below.

Required Courses

CSED 2256	Deaf Culture and Community	3 cr
CSED 3340	Communication Disorders Lifetime Perspective	3 cr
CSED 4415	Clinical Practicum in Audiology	1-4 cr
CSED 4416	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 course work. The student choosing the ASL option will substitute ASL I and ASL II for CSED 2227 and 2228.

CSED 1151, 1151L	American Sign Language I, and Laboratory	4 cr
CSED 1152, 1152L	American Sign Language II, and Laboratory	4 cr
CSED 2251, 2251L	American Sign Language III, and Laboratory	4 cr
CSED 2252, 2252L	American Sign Language IV, and Laboratory	4 cr

Spanish Language Option:

Students choosing the Spanish option must complete the following courses:

SPAN 1101	Elementary Spanish I	4 cr
SPAN 1102	Elementary Spanish II	4 cr
SPAN 2201	Intermediate Spanish I	4 cr
SPAN 2202	Intermediate Spanish II	4 cr

Elective Course Option:

Students choosing the Elective option must complete 8 elective credits from the list below, and may petition to take courses not on this list.

BIOL 3358	Genetics	3 cr
BIOL 4415, 4415L	Human Neurobiology, and Lab	4 cr
BIOL 4460	Neuroscience	4 cr
COUN 3300	Interpersonal Skills in Health Professions	2 cr
CSED 3321L	Clinical Phonetics and Phonology Lab	1 cr
CSED 3325	Speech Sound Development and Disorders	3 cr
CSED 3335	Language Disorders	3 cr
CSED 4400	Organic Communication Disorders	4 cr
CSED 4420	Speech Language Pathology	
CSED 4425	Speech Language Pathology Methods and Applications	3 cr
PHYS 1100	Essentials of Physics	4 cr
PHYS 1111	General Physics I	3 cr

PHYS 1112	General Physics II	3 cr
PHYS 3300	Medical Electronics	2 cr
PSYC 3344	Adult Development and Aging	3 cr
PSYC 4446	Cognitive Processes	3 cr
SPED 3330	The Exceptional Child	3 cr

Pre-Speech Language Pathology Emphasis:**Pre-Speech-Language Pathology**

Students choosing the Emphasis in Pre-Speech-Language Pathology must complete the Required Departmental Requirements above and the Required Courses listed below.

Required Courses:

CSED 3321L	Clinical Phonetics and Phonology Lab	1 cr
CSED 3325	Speech Sound Development and Disorders	3 cr
CSED 3335	Language Disorders	3 cr
CSED 4400	Organic Communication Disorders	4 cr
CSED 4420	Assessment and Intervention of Speech and Language Disorders	3 cr
CSED 4425	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 1126	Deaf Studies	1 cr
CSED 1151	American Sign Language I	3 cr
CSED 1151L	American Sign Language I Laboratory	1 cr
CSED 1152	American Sign Language II	3 cr
CSED 1152L	American Sign Language II Laboratory	1 cr
CSED 2205	Introduction to Communication Differences and Disorders	3 cr
CSED 2250	Signing Seminar	3 cr
CSED 2250L	Signing Seminar Laboratory	1 cr
CSED 2251	American Sign Language III	3 cr
CSED 2251L	American Sign Language III Lab	1 cr
CSED 2252	American Sign Language IV	4 cr
CSED 2255	Creative Signing	3 cr
CSED 2256	Deaf Culture and Community	3 cr

Bachelor of Science in 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 3307	Professional and Technical Writing	3 cr
ENGL 3308	Business Communication	3 cr
CSED 3330	Language Science and Development	3 cr
CSED 3351	American Sign Language V	4 cr
CSED 3352	American Sign Language VI	4 cr
CSED 3353	Interpreting Seminar	4 cr
CSED 3354	Interpreting	4 cr
CSED 4449	Fingerspelling and Numbers	3 cr
CSED 4452	Manually Coded English	3 cr
CSED 4453, 4453L	Transliterating I: Voice to Sign, and Lab	4 cr
CSED 4454, 4454L	Transliterating II: Sign to Voice, and Lab	4 cr
CSED 4456	Psychosocial Aspects of Deafness	3 cr
CSED 4460	Educational Audiology	3 cr
CSED 4461	The Professional Interpreter	3 cr
CSED 4470	Field Observation in Interpreting	6 cr
CSED 4473	Collaboration	2 cr
CSED 4474	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 1126	Deaf Studies	1 cr
CSED 1151	American Sign Language I	3 cr
CSED 1151L	American Sign Language I Laboratory	1 cr
CSED 1152	American Sign Language II	3 cr
CSED 1152L	American Sign Language II Laboratory	1 cr
CSED 2205	Introduction to Communication Disorders	3 cr
CSED 2250	Signing Seminar	3 cr
CSED 2250L	Signing Seminar Laboratory	1 cr

Electives

CSED 2251	American Sign Language III	3 cr
CSED 2251L	American Sign Language III Laboratory	1 cr
CSED 2252	American Sign Language IV	3 cr
CSED 2251L	American Sign Language IV Laboratory	1 cr
CSED 2256	Deaf Culture and Community	3 cr
CSED 4435	Speech and Hearing Sciences	3 cr
CSED 3341	Audiometry and Hearing Science	3 cr

CSED 4420	Assessment and Intervention of Speech and Language Disorders	3 cr
CSED 4460	Educational Audiology	3 cr
SPED 3330	The Exceptional Child	3 cr

Minor in Deaf Education*

CSED 1126	Deaf Studies	1 cr
CSED 2205	Introduction to Communication Differences and Disorders	3 cr
CSED 2256	Deaf Culture and Community	3 cr
CSED 3330	Language Science and Development	3 cr
CSED 4456	Psychosocial Aspects of Deafness	3 cr
CSED 4460	Educational Audiology	3 cr

Electives (8 credits minimum)

CSED 1151	American Sign Language I	4 cr
CSED 1152	American Sign Language II	4 cr
CSED 2251	American Sign Language III	4 cr
CSED 2252	American Sign Language IV	4 cr
CSED 3327	Basic Sign I	2 cr
CSED 3328	Basic Sign II	2 cr
CSED 4405	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.

Deaf 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 1126 Deaf Studies 1 credit. Introduction to deafness; the culture and community of deaf individuals; language and communication issues; education and employment considerations in deafness. F

CSED 1151 American Sign Language I 3 credits. Manual communication course introduces the student to ASL. Students experience the language directly without presentation of English equivalents, emphasizing development of receptive language and vocabulary expansion. PREREQ: Sign Language Studies major or permission of instructor. COREQ: CSED 1126 and CSED 1151L. F

CSED 1151L American Sign Language I Laboratory 1 credit. F

CSED 1152 American Sign Language II 3 credits. Emphasis on receptive and expressive skills to achieve fluency on a grammatically appropriate level. Students are introduced to videotaping as a learning tool. PREREQ: CSED 1151, CSED 1151L and Sign Language Studies major or permission of instructor. COREQ: CSED 1152L. S

CSED 1152L American Sign Language II Laboratory 1 credit. S

CSED 2205 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 2227 Basic Sign I 2 credits. Beginning study of sign vocabulary, phrases and fingerspelling focused on expressive and receptive modes. Based on signing using English syntax. Designed for non-Sign Language Studies majors/minors: does not substitute for American Sign Language (ASL) classes. F

CSED 2228 Basic Sign II 2 credits. Application of basic sign vocabulary, phrases and fingerspelling skills focused on expressive and receptive modes. Based on signing using English syntax. Designed for non-Sign Language Studies majors/minors: does not substitute for American Sign Language (ASL) classes. PREREQ: CSED 2227 or permission of instructor. S

CSED 2250 Signing Seminar 3 credits. This course introduces and discusses sign systems, ethical considerations for signers, employment options, and support or advancement with signing profession options and signing environments. PREREQ: CSED 1151 and permission of instructor. S

CSED 2250L Signing Seminar Laboratory 1 credit. Provides experiences in support of CSED

2250 concepts and skills. PREREQ: CSED 1151 and permission of instructor. COREQ: CSED 2250. S

CSED 2251 American Sign Language III 4 credits. Students are introduced to linguistic principles of ASL and a transcription system for recording and preparing dialogues and texts. Emphasis is on student generated conversations. PREREQ: CSED 1152, CSED 1152L, and Sign Language Studies major or permission of instructor. COREQ: CSED 2251L. F

CSED 2251L American Sign Language III Laboratory 0 credits. F

CSED 2252 American Sign Language IV 4 credits. Linguistic features of ASL are expanded, including inflection, spatialization, movement, redundancy, and use of facial expression and body posture. Emphasizes vocabulary development. PREREQ: CSED 2251, CSED 2251L, and Sign Language Studies major or permission of instructor. COREQ: CSED 2252L. S

CSED 2252L American Sign Language IV Laboratory 0 credits. S

CSED 2255 Creative Signing 3 credits. Techniques of facial expression, body movements, and ASL features as used in performing arts settings. Skills are developed through pantomime, song, and other activities. S

CSED 2256 Deaf Culture and Community 3 credits. An information course emphasizing aspects of deafness and deaf culture that are related to language study and minority group dynamics. PREREQ: CSED 1151 and CSED 1151L. F

CSED 3315 Introduction to Clinical Processes 3 credits. Basic treatment and assessment principles, methods, and procedures in speech-language pathology and audiology. PREREQ: CSED 3321, and CSED 3330, or permission of the instructor. S

CSED 3321 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 3321L. F

CSED 3321L Clinical Phonetics and Phonology Lab 1 credit. Required laboratory portion of CSED 3321 for emphasis pre-speech-language pathology. Not required for Pre-Audiology emphasis. Skill development in use of International Phonetic Alphabet. COREQ: CSED 3321. F

CSED 3325 Speech Sound Development and Disorders 3 credits. Introduction to childhood speech development and disorders. Basic clinical principles and procedures for diagnosis and treatment of disorders of speech sound production. PREREQ: CSED 3321 with a grade of "C" or better or permission of instructor. S

CSED 3330 Language Science and Development 3 credits. Analysis of the development of systems of communication: phonologic, morphologic, syntactic, semantic, pragmatic, and relevant nonverbal and cognitive development in normal children. Review of current theories and research. F

CSED 3335 Language Disorders 3 credits. Study of children with developmental delays and disorders of language. Includes etiology, charac-

teristics, assessment and intervention principles. Introduction to language diversity. PREREQ: CSED 3330 or permission of instructor. S

CSED 3340 Communication Disorders Lifetime Perspective 3 credits. An overview of speech and language disorders across the age span. Assessment, treatment, and referral options will be presented. Class intended for students not pursuing a speech language pathology graduate degree. PREREQ: CSED 3321 and CSED 3330 or permission of the instructor. S

CSED 3341 Audiometry 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 3351 American Sign Language V 4 credits. Intensive practice involving expressive and receptive skills in various language activities. Introduces language forms in poetry, art, and theater. Explores signing styles and registers. PREREQ: CSED 2252. COREQ: CSED 3351L. F

CSED 3351L American Sign Language V Laboratory 0 credits. F

CSED 3352 American Sign Language VI 4 credits. Structural properties of ASL compared with other languages. Includes phonology, morphology, syntax, and semantics. PREREQ: CSED 3351. COREQ: CSED 3352L. S

CSED 3352L American Sign Language VI Laboratory 0 credits. S

CSED 3353 Interpreting Seminar 4 credits. Presents theoretical models, concepts, and language skills and ethical considerations necessary to render the source language into an accurate, culturally appropriate equivalent in the target language. PREREQ: CSED 2250, CSED 2250L, CSED 3352, and permission of instructor. F

CSED 3353L Interpreting Seminar Laboratory 0 credits. Assignments to apply principles in CSED 3353. COREQ: CSED 3353. F

CSED 3354 Interpreting 4 credits. This course introduces practice and processing of interpreting in educational settings. Voice-to-sign and sign-to-voice in ASL are the focus in practical activities and theoretical models are reinforced. PREREQ: CSED 3353 and permission of instructor. S

CSED 3354L Interpreting Laboratory 0 credits. Assignments to apply principles in CSED 3354. COREQ: CIS 3354. S

CSED 4400 Organic Communication Disorders 4 credits. Review of major organic speech, language and hearing disorders. PREREQ: Permission of instructor. S

CSED 4405 Neurological Bases of Communication Disorders 3 credits. Fundamentals of neuroanatomy and physiology related to speech, language and hearing. Introduction to communication disorders related to neurological damage. PREREQ: CSED 4435 or permission of instructor. S

CSED 4415 Clinical Practicum in Audiology 1-2 credits. Supervised experience in the evaluation, (re)habilitation, and counseling of persons with hearing disorders. Students will

also participate in weekly clinical staffing. May be repeated up to 6 credits. PREREQ OR COREQ: CSED 4416. F, S

CSED 4416 Audiology Methods and Applications 1 credit. Introductory training and experience in audiologic clinical procedures. PREREQ: Completion of CSED 3341 and permission of instructor. F

CSED 4417 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 4417, PSYC 4417, and SOWK 4417. PREREQ: Permission of instructor. S

CSED 4420 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 3315, CSED 3325, and CSED 3335, or permission of the instructor. F

CSED 4425 Speech Language Pathology Methods and Application 3 credits. Application of assessment and treatment principles, methods, and procedures in speech and language disorders through classroom experiences, observation, and clinical experiences. For students planning to pursue graduate education. PREREQ: CSED 3315, CSED 3325, CSED 3335, and CSED 4420 or permission of the instructor. S

CSED 4435 Speech and Hearing Science 4 credits. Introduction to the anatomy and physiology of speech production. Topics include respiratory dynamics, laryngeal functions, articulatory dynamics, hearing mechanism, and the neurophysiology of speech and hearing. PREREQ: BIOL 3301 and BIOL 3302 or permission of instructor. COREQ: CSED 4435L. F

CSED 4435L Speech and Hearing Science Laboratory 0 credits. Required laboratory portion of CSED 4435. F

CSED 4440 Special Topics Workshop 1-3 credits. Presentation of professionally related topics in workshop format. Meets for a minimum of 16 contact hours per credit with appropriate outside assignments, readings, or papers. May be repeated for up to 6 credits. Graded S/U. D

CSED 4445 Aural Rehabilitation 3 credits. Aural rehabilitation of the hearing impaired. Consideration of amplification, speech reading, auditory training, and other aspects of the process. PREREQ: CSED 3341 or permission of instructor. S

CSED 4449 Fingerspelling and Numbers 3 credits. Improve receptive and expressive fingerspelling skills. Emphasis on whole-word and phrase recognition, and on reading fingerspelling and numbers embedded in signed sentences. Use ASL number systems including cardinal, ordinal, and informational numbers relating to time, temporal-aspect signs, measurements, and math terms. PREREQ: Permission of instructor. F

CSED 4452 Manually Coded English 3 credits. Introduces the conversational signer to MCE, developed for the education of the hear-

ing impaired child. Designed for educational interpreters who plan to work in K-8 educational settings. PREREQ: Permission of instructor. S

CSED 4453 Transliterating I: Voice to Sign 4 credits. Theoretical and practical "hands-on" approach to the process of sign language transliterating. Students will render spoken messages in English into contact varieties and signed English, using sample discourses and texts as appropriate to K-12 educational settings. PREREQ: CSED 3354 and permission of instructor. COREQ: CSED 4453L. F

CSED 4453L Transliterating I: Voice to Sign Lab 0 credit. Assignments to apply principles taught in CSED 4453. COREQ: CSED 4453. F

CSED 4454 Transliterating II: Sign to Voice 4 credits. Continuation of the theoretical and practical "hands-on" approach to sign language transliterating. Render contact varieties and signed English messages into spoken English. PREREQ: CSED 3354 and permission of the instructor. COREQ: CSED 4454L. S

CSED 4454L Transliterating II: Sign to Voice Laboratory 0 credits. Assignments to apply principles taught in CSED 4454. COREQ: CSED 4454. S

CSED 4456 Psychosocial Aspects of Deafness 3 credits. Psychological, educational, and social influences of the hearing community on deaf persons and the structure of the deaf community as a socio-cultural entity. PREREQ: CSED 3351 with a "B" or better. F

CSED 4460 Educational Audiology 3 credits. Overview of school-based audiology services including working within the public school system and with related professionals, legal issues and options for providing comprehensive services to children with hearing loss and their families. S, ASU

CSED 4461 The Professional Interpreter 3 credits. Ethical guidelines and standards of conduct expected of a professional interpreter. Acquaints students with theoretical issues involved in interpreting as a profession. PREREQ: Permission of instructor. AF

CSED 4470 Field Observation in Interpreting 2 credits. Student will be assigned to observe in an elementary/secondary or post-secondary school for six hours per week. May be repeated for up to 8 credits. PREREQ: Permission of advisor. F, S

CSED 4473 Collaboration 2 credits. Presents theoretical models, principles, practices pertaining to collaborating in educational settings. Relevant concepts from the social/behavioral sciences will be examined through discussions, hypothetical situations, and role playing. PREREQ: Permission of instructor. S

CSED 4474 Educational Interpreting Internship 4-8 credits. Student will be assigned to elementary/secondary or post-secondary setting for a period of weeks to match credit. Assignment includes observation and assuming the role of the interpreter under appropriate supervision. May be repeated to a maximum of 8 credits. PREREQ: Permission of advisor. F, S

CSED 4480 Genetics for Health Care 3 credits. An in-depth, interdisciplinary review of the impact of genetics on patients and patient care

and the biological, social, ethical and legal issues surrounding genetics and genomics. Cross-listed as NURS 4480. Su

CSED 4482 Independent Study 1-4 credits. Study of problems selected by students and faculty. May be repeated up to 8 credits. D

CSED 4491 Seminar 1-4 credits. Reading, preparation, and discussion of reports and projects in all areas of speech and hearing science, speech pathology and audiology. May be repeated up to 12 credits. D

Department of Counseling

Chair and Professor: Feit

Professors: Allen, Hill, Kleist

Associate Professors: Crews, Paulson, Vereen

Assistant Professors: Harrawood, Horn
Clinical Assistant Professor: Singarajah

Instructors: Bennett, Erickson, Harris, Johnson, Kase, Robinson, Thompson
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; Mental Health Counselors for community agencies and other mental health settings; and Student Affairs Counselors for working in college settings such as advising and residence hall and career centers.

We prepare doctoral level counselor educators and supervisors to serve as faculty members in counselor education programs, counselor supervisors in various settings, doctoral level counselors, leaders in higher education and counseling organizations, and scholars.

We believe that it is also our mission to:

- instill a strong sense of professional identity in students,
- help students gain an appreciation of the rich knowledge base in counselor education,
- develop student expertise in the skills of counseling,
- aid students to become certified and/or licensed,

- aid students/graduates in their initial job placement,
- teach and perform research applicable to the practice of counseling, and
- aid students in understanding the diversity of views and cultures within our profession and the environment in which counselors practice.

The Department of Counseling also has a mission within the Kasiska College of Health Professions (KCHP), which is to represent the mental health perspective within KCHP and to consult with KCHP faculty and departments in encouraging a holistic perspective toward health care services.

Goals and Objectives

The 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. Students in all majors (Marital, Couple, and Family Counseling, School Counseling, and Student Affairs Counseling) 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 4491, Introduction to Counseling Services. This 1-credit course is offered each Fall semester.

Degree Programs

Degree programs offered by the department, all at the graduate level, include Doctor of Philosophy, Educational Specialist, and Master of Counseling. Majors are available in Counselor Education and Counseling (Ph.D.); Counseling (Ed.S.), Marital, Couple, and Family Counseling (M.Coun.); Mental Health Counseling (M.Coun.); School Counseling (M.Coun.); and Student Affairs Counseling (M.Coun.).

Accreditation

The program for school counselor preparation is accredited by the State of Idaho.

The Counselor Education programs approved by the Council for Accreditation of Counseling and Related Educational Programs are as follows: Marital, Couple, and Family Counseling (M.Coun.), Mental Health Counseling (M.Coun.), School Counseling (M.Coun.), Student Affairs Counseling (M.Coun.), and Counselor Education and Counseling (Ph.D.).

Admission

Admission to the Department of Counseling Master's program is based on a variety of criteria outlined in the Graduate Catalog. Because of limited class sizes and the large number of applicants, admission into the Department of Counseling is highly competitive.

Application forms are available after August 15 from the Department of Counseling and online. Application deadline is February 15 for the Master of Counseling program; January 15 for the Ph.D. program. If you are interested in admission and the deadlines have passed, please contact the Department. A secondary admission process may be conducted.

A maximum of 20-25 students are admitted to the Master of Counseling program each year on the Pocatello campus and 10-12 are admitted on the Idaho State University-Meridian campus. Classes begin in the Fall semester each year.

Counseling Courses

COUN 1150 Career and Life Planning 1 credit. Centers on theories and actual processes of effective decision-making with direct application to participants' short and long range life goals. Course will emphasize self-understanding and methods for gathering appropriate external information. Career decisions are emphasized. PREREQ: Permission of instructor. F, S

COUN 2200 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. D

COUN 2201 Introduction to Leadership 1 credit. Contemporary approaches to leadership with an emphasis on the practical application of theoretical models. Graded S/U. D

COUN 2210 Human Relations at Work 3 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 3300 Interpersonal Skills in Health Professions 2 credits. Theory and practice in the use of effective interpersonal communication skills and styles for health care providers. D

COUN 3350 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 4423 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 4450 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. F, S

COUN 4484 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 4485 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 4491 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 4494 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

Department of Dental Hygiene

Chair and Professor: Hodges

Professors: 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: Bono, E. Bringhurst,

L. Bringhurst, Eisenhauer,

D. Godfrey, M. Godfrey, Gregson,

Peterson, Rahmig, Reddish, Ruth,

Sheppard, Spain, Williams

Affiliate Faculty: R. Johnson, Kane,

Luedtke, Parrish, Salisbury

Emeritae: Bowen, 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, participate in a dynamic, multidisciplinary healthcare system, and provide leadership in the profession;
 - prepare knowledge-based graduates grounded in humanities and sciences and guided by evidence, theories, standards of care, ethics, and the law;
- award baccalaureate and master's degrees in the discipline with a vision toward granting other advanced credentials and doctoral 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 and foster positive, long-term changes in health 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, 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 baccalaureate, entry-level 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 knowledge base and high quality professional education that fosters their ability to adapt to the future, provide leadership in dental hygiene, and enroll in master’s or doctoral level education.

Goal 3. To offer a master’s degree dental hygiene program that prepares graduates who exhibit leadership and advocacy for advancing the profession, develop advanced practice skills that improve oral health and access to dental hygiene care, and assume responsibility for professional development.

Goal 4. To enhance knowledge through graduate student and 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 5. 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 6. 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 7. To operate and maintain on-campus and extended facilities to provide quality oral health care while fulfilling the educational missions of the programs.

Program Description

The Department of Dental Hygiene awards a Bachelor of Science degree. Students apply to the professional curriculum after completing prerequisite courses in science and general education. The professional program is two years in length. Prerequisites can be completed at the institution of the student’s choice. The Department of Dental Hygiene has transfer information posted on its website: <http://www.isu.edu/departments/dentahy/>.

The program is designed to foster student growth, promote development of critical and ethical judgment, and encourage life-long learning. The curriculum includes didactic, laboratory and clinical instruction sufficient to graduate competent clinicians who are capable of practicing contemporary dental hygiene procedures. Students are educated to clinical competency in both traditional and advanced procedures, with emphasis placed on preventive, therapeutic, and nonsurgical services essential for providing total patient care to the public. As a result, graduates possess an increased understanding of dentistry and dental hygiene, expanded capabilities as members of the oral health team, and greater career mobility. Graduates of the Idaho State University dental hygiene program also are prepared to pursue graduate studies in dental hygiene or related areas. The dental hygiene program is fully accredited by the American Dental Association Commission on Dental Accreditation.

Employment Opportunities

Upon completion of the dental hygiene curriculum, graduates are qualified to take the Dental Hygiene National Board Examination and 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/dentahy/>, 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 provided 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 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.

Bachelor of Science in Dental Hygiene

Graduation Requirements

Prerequisite Core Courses (department requirements and general education)	46 cr
Required Dental Hygiene courses	68 cr
Other courses (including general education), minimum of:	14 cr
Electives, minimum of	3 cr
TOTAL:	131 cr

Prerequisite Core Courses (Pre-Dental Hygiene)

BIOL 1101,1101L Biology I, and Lab (satisfies Goal 4)	4 cr
BIOL 2221,2221L Introductory Microbiology, and Lab	4 cr
BIOL 3301,3301L Anatomy and Physiology, and Lab	4 cr
BIOL 3302,3302L Anatomy and Physiology, and Lab	4 cr
CHEM 1101 Introduction to General Chemistry AND	3 cr
CHEM 1102,1103 Introduction to Organic and Biochemistry, and Lab (satisfies Goal 5)	4 cr
COMM 1101 Principles of Speech (satisfies Goal 2)	3 cr
DENT 2201 Principles of Dental Hygiene	2 cr
ENGL 1101 English Composition	3 cr
ENGL 1102 Critical Reading and Writing	3 cr
NTD 2239 Nutrition	3 cr
MATH 1153 Introduction to Statistics (satisfies Goal 3)	3 cr
PSYC 1101 Introduction to General Psychology (satisfies Goal 12)	3 cr
SOC 1101 Introduction to Sociology (satisfies Goal 12)	3 cr

IN ADDITION:

Two of Goals 6, 7, and 8

Two of Goals 9, 10 and 11

DENT 2220 is highly recommended as an elective for pre-dental hygiene students without dental office experience.

CIS 1101 is highly recommended as an elective for those individuals without computer skills.

HCA 1110 is recommended for Kasiska College of Health Professions students.

Required Dental Hygiene Courses

DENT 3307	Managing Oral Health Care for Medically Compromised Patients	3 cr
DENT 3308	Oral Histology and Embryology	2 cr
DENT 3309	Oral Pathology	2 cr
DENT 3311	Tooth Morphology	2 cr
DENT 3312	Head and Neck Anatomy	3 cr
DENT 3313	Clinical Dental Hygiene I	2 cr
DENT 3313C	Clinical Dental Hygiene I, Clinic	3 cr
DENT 3314	Clinical Dental Hygiene II	2 cr
DENT 3314C	Clinical Dental Hygiene II, Clinic	3 cr
DENT 3315	Preventive Dentistry	2 cr
DENT 3316	Dental Materials	2 cr
DENT 3317	Oral Radiology I	1 cr

DENT 3318	Oral Radiology II	2 cr
DENT 3318L	Oral Radiology Laboratory	1 cr
DENT 3319	Pre-clinical Expanded Functions	3 cr
DENT 3320	Local Anesthesia	2 cr
DENT 3321	Introduction to Periodontology	2 cr
DENT 4401	Research Methodology	3 cr
DENT 4402	Periodontology	2 cr
DENT 4403	Clinical Dental Hygiene III	2 cr
DENT 4403C	Clinical Dental Hygiene III, Clinic	4 cr
DENT 4404	Clinical Dental Hygiene IV	2 cr
DENT 4404C	Clinical Dental Hygiene IV, Clinic	4 cr
DENT 4407	Contemporary Issues in Periodontology	1 cr
DENT 4408	Ethics and Jurisprudence	2 cr
DENT 4409	Communication and Behavior Management in Dentistry	1 cr
DENT 4411	Expanded Functions I	2 cr
DENT 4411C	Expanded Functions I, Clinic	1 cr
DENT 4412	Dental Specialties	1 cr
DENT 4412C	Expanded Functions II, Clinic	1 cr
DENT 4413	Community Health and Special Needs Populations I	2 cr
DENT 4414	Community Health and Special Needs Populations II	2 cr
DENT 4415	Clinical Seminar	1 cr

Dental Hygiene Electives

DENT 3305	Personal and Career Development	1 cr
DENT 3330C	Interim Clinic	2 cr
DENT 3340C	Summer Clinic Enrichment	0 cr
DENT 4420	Dental Hygiene Specialty Emphasis	2 cr
DENT 4481-4482	Independent Problems in Dental Hygiene	1-6 cr

Other Required Courses

PSCI 3314	Basic and Applied Pharmacology for Dental Hygiene	2 cr
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Dental Hygiene Courses

DENT 2201 Principles of Dental Hygiene 2 credits. Prevention of dental diseases, role of the dental hygienist and oral healthcare team are presented at the pre-professional level. Dental hygiene career content assists in formulating a career decision. F, S

DENT 2220 Introduction to the Dental Office 2 credits. Introduction to dental terminology and office procedures including duties and responsibilities of various dental personnel through lectures, activities and field experiences. F

DENT 3305 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 3307 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 3313C. F

DENT 3308 Oral Histology and Embryology 2 credits. Study of the embryologic and histologic development of the face and oral structures and the histologic response of oral tissues specifically related to health and disease. Utilization of laboratory, microscopic and diagnostic aids. F

DENT 3309 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 3308. S

DENT 3311 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 3312 Head and Neck Anatomy 3 credits. Descriptive anatomical study of regions of the head and neck, including skeletal, blood, and nervous tissues. Special emphasis on structures related to clinical dental hygiene procedures. COREQ: DENT 3311. F

DENT 3313 Clinical Dental Hygiene I 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 3313C. F

DENT 3313C Clinical Dental Hygiene I, Clinic 3 credits. Preclinical application of principles, techniques, and concepts presented in DENT 3307 and 3313. PREREQ: Acceptance into Dental Hygiene program. COREQ: DENT 3313. F

DENT 3314 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 3313, DENT 3313C, and DENT 3315. COREQ: DENT 3314C. S

DENT 3314C 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 3313, DENT 3313C, and DENT 3315. COREQ: DENT 3314. S

DENT 3315 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 3316 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 3317 Oral Radiology I 1 credit. Survey of principles of x-ray production and radiographic equipment with emphasis on radiographic safety and protection. F

DENT 3318 Oral Radiology II 2 credits. Principles and technique of exposing and interpreting oral radiographic surveys. PREREQ: DENT 3312, DENT 3313, DENT 3313C, and DENT 3317. S

DENT 3318L Oral Radiology Laboratory 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. PREREQ: DENT 3317. COREQ: DENT 3314C and DENT 3318. S

DENT 3319 Preclinical Expanded Functions 3 credits. Didactic and laboratory application of dental materials and dental hygiene restorative expanded duties. Duties relate to amalgam, tooth colored and temporary restorations; four-handed dentistry; impressions and study models. PREREQ: DENT 3311 and DENT 3316. S

DENT 3320 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 3307 and DENT 3312. S

DENT 3321 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 3308, DENT 3313, and DENT 3313C. COREQ: DENT 3314 and DENT 3314C. S

DENT 3330C Interim Clinic 2 credits. Continued clinical application of dental hygiene procedures emphasizing total patient care. For students who require additional clinical course experience for DENT 3314C or DENT 4404C sufficient for progression or graduation. May be repeated once. PREREQ: Permission of department. F, S, Su

DENT 3340C Summer Clinic Enrichment 0 credit. Continued clinical application of dental hygiene procedures emphasizing total patient care. For students who desire to enrich their clinical course experience for 3314C or 4404C. PREREQ: Permission of department. Graded S/U. Su

DENT 4401 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 1153 and ENGL 1102. F

DENT 4402 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 3314, DENT 3314C, and DENT 3321. COREQ: DENT 4403 and DENT 4403C. F

DENT 4403 Clinical Dental Hygiene III 2 credits. Advanced clinical procedures in all phases of dental hygiene practice including non-surgical periodontal therapy, ultrasonic scaling, instrument recontouring, assessment procedures and dietary counseling. PREREQ: DENT 3314 and DENT 3314C. COREQ: DENT 4403C. F

DENT 4403C 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 3314 and DENT 3314C. COREQ: DENT 4403. F

DENT 4404 Clinical Dental Hygiene IV 2 credits. Continued study of advanced clinical procedures. Emphasizes periodontal instrumentation and advanced ultrasonic techniques, subgingival irrigation, airpolishing, job interviewing, résumé writing and professional practice management. PREREQ: DENT 4403 and DENT 4403C. COREQ: DENT 4404C. S

DENT 4404C 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 4403 and DENT 4403C. COREQ: DENT 4404. S

DENT 4407 Contemporary Issues in Periodontology 1 credit. Examination and analysis of contemporary issues and trends in periodontal theories and practice. PREREQ: DENT 4402, DENT 4403 and DENT 4403C. COREQ: DENT 4404 and DENT 4404C. Graded S/U. S

DENT 4408 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 4409 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 4411 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 3319 and DENT 3320. COREQ: DENT 4411C. F

DENT 4411C 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 3319 and DENT 3320. COREQ: DENT 4411. F

DENT 4412 Dental Specialties 1 credit. Didactic and laboratory application of information related to the dental specialties. Emphasis is placed on those specialties not covered elsewhere in the curriculum. PREREQ: DENT 4411. COREQ: DENT 4412C. S

DENT 4412C Expanded Functions II Clinic 1 credit. Continuation and amplification of skills developed in DENT 4411C. PREREQ: DENT 4411 and DENT 4411C. COREQ: DENT 4412. S

DENT 4413 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 4403 and DENT 4403C. F

DENT 4414 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 3315. S

DENT 4415 Clinical Seminar 1 credit. Discussion and integration of clinical cases, in addition to current theories and topics in dental hygiene practice. COREQ: DENT 4404, DENT 4404C, and DENT 4412C. S

DENT 4420 Dental Hygiene Specialty Emphasis 2 credits. Dental hygiene specialties including leadership, community dental health, dental hygiene education, and advanced clinic and periodontology. Students select one emphasis. PREREQ: DENT 4402. S

DENT 4481 Independent Studies in Dental Hygiene 1-3 credits. Students will select an area of special interest to pursue through independent study. The student normally is required to present a report giving results of his/her work. May be repeated to a maximum of 12 credits. F, S, Su

Department of Dental Sciences

Chair, IAGD Program Director, and Associate Professor: Crawford
IAGD Meridian Clinic Director: Powell
IAGD Pocatello Clinic 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, Moulton, Munk, Nelson, Newton, Peterson, Polson, Ruppel, Seyler, Stauts, 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 on the Department of Dental Sciences' web site (<http://www.isu.edu/departments/dentsci/>). In addition to fulfilling the minimal prerequisites most students accepted into the program will have a bachelor's degree at the time of entry into IDEP. Occasionally, some exceptional students who have completed the junior level (upper division) of college course work are admitted into the program.

Students are encouraged to work closely with their pre-dental academic advisor in making course selections which fulfill dental school and degree completion requirements.

Formal application for admission to the IDEP program follows the guidelines outlined in the Department of Dental Sciences' web site and the Creighton University School of Dentistry Bulletin. The application process involves: taking the Dental Aptitude Test (DAT), completion of the American Dental Education Association Application Service centralized application, the Creighton Supplemental Application and the IDEP Residency Certification Form. Early application is strongly encouraged to allow adequate time for completion of admission requirements and consideration by the admissions committee. Students may apply the summer prior to anticipated entry into the program. The selection process is normally completed in December prior to the year of program entry.

Further information concerning the program, admission requirements, and Residency Certification forms can be obtained by contacting the program at the following address:

Department of Dental Sciences
921 S 8th Ave Stop 8088
Pocatello ID 83209-8088
Phone: (208) 282-3289
www.isu.edu/departments/dentsci

Required Basic Sciences Courses

BIOL 4400	Oral Histology and Embryology	3 cr
BIOL 4400L	Oral Histology and Embryology Lab	0 cr
BIOL 4419	Mammalian Histology	4 cr
BIOL 4419L	Mammalian Histology Lab	0 cr
BIOL 4432	Biochemistry	3 cr
BIOL 4440	Human Gross Anatomy	4 cr
BIOL 4440L	Human Gross Anatomy Lab	0 cr
BIOL 4450	Head and Neck Anatomy	3 cr
BIOL 4450L	Head and Neck Anatomy Lab	0 cr
BIOL 4460	Neuroscience	4 cr
BIOL 4464	Human Systemic Physiology	5 cr

Required Dental Sciences Courses

IDEP 4413	Dental Anatomy Lecture I	1 cr
IDEP 4414	Dental Anatomy Laboratory	3 cr
IDEP 4415	Dental Materials Science I	2 cr
IDEP 4417	Interpersonal Relationships and Communication	1 cr
IDEP 4423	Preventive Dentistry	2 cr
IDEP 4425	History of Dentistry	1 cr
IDEP 4426	Community Dentistry Field Experience	1 cr
IDEP 4433	Oral Hygiene Technique	1 cr
IDEP 4434	Dental Materials Science II	3 cr
IDEP 4435	Occlusion Laboratory	1 cr
IDEP 4444	Values and Ethics	1 cr
IDEP 4454	Occlusion Lecture	1 cr
IDEP 4463	Dental Radiology I	1 cr
IDEP 4464	Dental Radiology Technique	1 cr
IDEP 4465	Dental Radiology II	1 cr
NTD 4495	Dental Nutrition	1 cr

Optional Dental Sciences Courses

IDEP 6617	Education Program	2 cr
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Dental Sciences Courses

IDEP 4413 Dental Anatomy Lecture I 1 credit. Nomenclature, chronology and methods of designation of human teeth. Form, size and contour of the teeth, including external and internal anatomy of the permanent and deciduous dentitions, intertooth relations and occlusion. F

IDEP 4414 Dental Anatomy Laboratory 3 credits. Carving of plaster teeth larger than average measurements and carving of wax teeth to natural size. Mounting of study casts on a functional articulator and waxing of teeth in occlusion. F

IDEP 4415 Dental Materials Science I 2 credits. Composition, properties and application of the materials used in dentistry. Basic

information on the design of preparatory work necessary for the mouth incident to the reception of these materials. F

IDEP 4417 Interpersonal Relationships and Communication 1 credit. To assist their orientation and adjustment to professional education, freshmen will participate in group introductions followed by a discussion on interpersonal relationships and communication in general, relationships with classmates, administrators, faculty, and staff; dealing with stress; and establishing study habits. Graded S/U. F

IDEP 4423 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

IDEP 4425 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 4426 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

IDEP 4433 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 4434 Dental Materials Science II 3 credits. Continuation of IDEP 4415. PREREQ: IDEP 4415. S

IDEP 4435 Occlusion Laboratory 1 credit. Various exercises simulating clinical diagnostic and treatment procedures are employed to exemplify principles of maxillomandibular relationships. S

IDEP 4444 Values and Ethics 1 credit. Designed to identify and understand one's own ethical decision-making processes and the relationship of religion with values and ethics. Students will discuss the areas of value of care for people as individuals, challenges of personal and professional opportunities, code of ethics of the A.D.A. and dental care delivery systems. Graded S/U. F

IDEP 4454 Occlusion Lecture 1 credit. Basic principles of maxillomandibular relationships, static and functional, as related to the occlusal surfaces of the teeth. S

IDEP 4463 Dental Radiology I 1 credit. History, theory and application of ionizing radiation resulting in radiography of the oral structures; including exposure and developing parameters along with basic interpretation. COREQ: IDEP 4464. S

IDEP 4464 Dental Radiology Technique 1 credit. Practical experience in exposing and developing dental radiographs. The course will include techniques required to complete a diagnostic full mouth series, bitewing films and panoramic radiographs. COREQ: IDEP 4463. S

IDEP 4465 Dental Radiology II 1 credit. History, theory, and application of radiographic methods in dentistry including cephalometric, panoramic, and digital modalities. COREQ: IDEP 4463 and IDEP 4464. S

IDEP 6617 Extramural Dental Education Program 2 credits. Community clinical 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

Department Chair

and Clinical Professor: Cree

Associate Director: Woodhouse

Professor and Vice Chair: Force

Clinical Professor: Hachey

Clinical Associate Professor: Jones

Faculty Physicians: Christensen,

Mickelsen, Wright

Clinical Assistant Professors: Borzadek,

Pettinger

Clinical Research Fellow: Holmes

Clinical Instructors: Abraszewski,

Bearden, Waldron

Affiliate Faculty: Buitrago, DeSano,

Fernandez, Hogan, Joseph

Emeritus Faculty: Rush

Family Medicine Residency Program

The Idaho State University Family Medicine 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 program trains Family Physicians to practice in rural Idaho. The curriculum includes family medicine, obstetrics/gynecology, surgery, internal medicine, pediatrics, geriatrics, emergency medicine, community medicine, behavioral science, rural medicine, orthopedics and other subspecialties.

For more information, please contact:

Family Medicine Residency Program

465 Memorial Drive

921 S 8th Ave Stop 8357

Pocatello, ID 83209-8357

(208) 282-4504

Internet: www.fmed.isu.edu

E-mail: fammed@fmed.isu.edu

Department of Health and Nutrition Sciences and Health Care Administration

Chair and Professor: McAleese

Professor: Rankin

Clinical Associate Professors:

McKnight, Schneider

Assistant Professors: Batacan, Blanton,

Louis, Olsen, Weeden

Clinical Assistant Professor: Grim

Director, Wellness Center: Salazar

Emeriti: Dundas, Kearns, Kritsky, Morris

Our Mission

The mission of the Department of Health and Nutrition Sciences and Health Care Administration 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 professional health community.

About Us

Graduates with a baccalaureate degree in health education are eligible to take the Certified Health Education Specialist (CHES) national certification offered through

NCHEC. According to NCHEC, the benefits of the CHES designation include: establishes a national standard, attests to the individual's knowledge and skills, assist employers in identifying qualified health education practitioners, develops a sense of pride and accomplishment, and promotes continued professional development. The undergraduate school health emphasis is accredited by The National Council for Accreditation of Teachers (NCATE).

Students in the Health Education Program may choose from three emphasis or options: 1) school health emphasis. 2) community/worksite health emphasis, or 3) addiction studies option. Teaching and non-teaching minors are available.

The Didactic Program in Dietetics (DPD) is accredited by the Commission on Accreditation 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 postgraduate practical experience preparing interns for successful completion of the registration 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 Meridian 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 Department of Health and Nutrition Sciences and Health Care Administration 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 responsibility for health decisions with strategies that combine educational, political, regulatory, and organizational supports for actions and conditions conducive to the health of individuals, 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 options 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 the following courses with a "C" grade or better:

BIOL 1101, 1101L	Biology I, and Lab Introduction	4 cr
CIS 1101, 1101L	Introduction to Computer Systems, and Lab	3 cr
COMM 1101	Principles of Speech	3 cr
ENGL 1102	Critical Reading and Writing	3 cr
HE 2200	Promoting Wellness	3 cr
HE 2221	Introduction to Health Education	3 cr
MATH 1153	Introduction to Statistics	3 cr
NTD 1139	Consumer Nutrition	3 cr
	OR	
NTD 2239	Nutrition	3 cr

3. Submission of a health education philosophy statement and a statement describing an occupational goal that includes the use of health education.

Transfer students must have their transcripts evaluated by the Office of Admissions prior to application for program admission. Transfer students who have satisfied the Idaho State University general education requirements, have at least a 2.75

GPA, and have completed the equivalent of the courses listed in #2 above will be considered for admission.

All students accepted into the health education program must maintain at least a 2.75 GPA during their undergraduate studies.

Major in Health Education

Students choosing to major in health education must complete: all university general education requirements 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 1102 - Critical Reading and Writing
 Goal 2: COMM 1101 - Principles of Speech
 Goal 3: MATH 1153 - Introduction to Statistics
 Goal 4: BIOL 1101, 1101L - Biology I, and Lab*
 Goal 11: ECON 2202 - Principles of Microeconomics
 Goal 12: PSYC 1101 - 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:

CIS 1101, 1101L	Introduction to Computer Systems, and Lab	3 cr
ENGL 3307	Professional and Technical Writing	3 cr
NTD 1139	Consumer Nutrition	3 cr
NTD 2239	OR 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 teach-

ing 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)

HE 2200	Promoting Wellness	3 cr
HE 2221	Introduction to Health Education	3 cr
HE 3340, 3340L	Fitness and Wellness Programs, and Lab	3 cr
HE 3342	Stress and Emotional Health	3 cr
HE 4410	Behavior Change Theory and Application	3 cr
HE 4420	Health Program Planning and Implementation	3 cr
HE 4435	Health Program Evaluation and Research	3 cr

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:

HE 2210	Medical Terminology and Communication	2 cr
HE 2232	Helping Theories	3 cr
HE 3311	Case Management of Substance Abuse	3 cr
HE 3312	Ethics for the Addictions Counselor	3 cr
HE 3383	Epidemiology	3 cr
HE 4432	Community and Public Health	3 cr
HE 4443	Substance Abuse and Health Education	3 cr
HE 4473	Health Program Marketing	3 cr
HE 4490	Practicum—Health Education	8, 12, or 16 cr
HCA 3350	Organizational Behavior in Healthcare	3 cr
HCA 3384	Human Resource Management in Healthcare Organizations	3 cr

*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:

HE 2210	Medical Terminology and Communication	2 cr
HE 3383	Epidemiology	3 cr
HE 4432	Community and Public Health	3 cr
HE 4442	Environmental Health and Health Education	3 cr
HE 4443	Substance Abuse and Health Education	3 cr
HE 4445	Human Sexuality and Health Education	3 cr
HE 4473	Health Care Marketing	3 cr
HE 4490	Practicum—Health Education	8, 12, or 16 cr
HCA 3350	Organizational Behavior and Health Care	3 cr
HCA 3384	Human Resource Management in Healthcare Organizations	3 cr

*Must also complete 6 credit hours of upper-division H E courses

School Health Emphasis (12 credits)

In addition to the Health Education Major Core listed above, the following courses are required in the School Health Emphasis:

HE 4430	Curriculum and Methods in Health Education	3 cr
HE 4442	Environmental Health and Health Education	3 cr
HE 4443	Substance Abuse and Health Education	3 cr
HE 4445	Human Sexuality and Health Education	3 cr

Students in the School Health Emphasis must also complete the Professional Education Core (44 credits) from the College of Education (see Secondary Teacher Education requirements).

TOTAL CREDITS FOR HEALTH EDUCATION DEGREE 42-51 cr

Health Education Teaching Minor (21 credits)

Prerequisites:

Admission to Teacher Education Program
 Admission to Health Education Program

Required Courses:

HE 2200	Promoting Wellness	3 cr
HE 2221	Introduction to Health Education	3 cr
HE 3340, 3340L	Fitness and Wellness Programs, and Lab	3 cr
HE 3342	Stress and Emotional Health	3 cr
HE 4430	Curriculum and Methods in Health Education	3 cr

Two of the following three courses:

HE 4442	Environmental Health and Health Education	3 cr
HE 4443	Substance Abuse and Health Education	3 cr
HE 4445	Human Sexuality and Health Education	3 cr
		TOTAL 21 cr

Health Education Nonteaching Minor (21 credits)

Required Courses:

HE 2200	Promoting Wellness	3 cr
HE 2221	Introduction to Health Education	3 cr
HE 3340,3340L	Fitness and Wellness Programs, and Lab	3 cr
HE 3342	Stress and Emotional Health	3 cr
HE 4410	Behavior Change Theory and Application	3 cr
HE 4420	Health Program Planning and Implementation	3 cr
HE 4435	Health Program Evaluation and Research	3 cr

Addiction/ Dependency Counselor Certification

Any Health Education majors who wish Idaho CADC certification must complete the following coursework and pass the ISAS Level I exam. Two courses are taught each semester and will be listed in the Class Schedule; contact the Department of Health and Nutrition Sciences to learn which courses will be scheduled in the future.

HE 2230	Introduction to Addictions	3 cr
HE 2232	Helping Theories	3 cr
HE 2233	Harmful and Illicit Substances	3 cr
HE 2234	Blood Borne Illness	1 cr
HE 2235	Chemical Dependency and the Family	3 cr
HE 3310	Screening and Assessment of Substance Abuse	3 cr
HE 3311	Case Management of Substance Abuse	3 cr
HE 3312	Ethics for the Addictions Counselor	3 cr
HE 3313	Practicum for the Chemical Dependency Counselor	3 cr

Health Education Courses

HE 1160 Women's Rape Aggression Defense 1 credit. Realistic self-defense tactics and techniques designed for women. Awareness, prevention, risk reduction, risk avoidance, and basic hands-on defense training. *R.A.D. is not a Martial Arts program.* Cross-listed as PE 1160 and WS 1160. PREREQ: Permission of Public Safety office or sponsoring program. F, S

HE 1190 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, Su

HE 2200 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, Su

HE 2201 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

HE 2210 Medical Terminology and Communication 2 credits. Terminology and vocabulary basic to all areas of medical science, hospital services, and allied health specialties. Develops skills in correct written and oral usage of medical terms. Cross-listed as HCA 2210. F, S.

HE 2211 Health Education Methods Elementary 1 credit. A study of subject content of the health education program with emphasis on methods and materials to be used by the elementary classroom teacher. F, S, Su

HE 2221 Introduction to Health Education 3 credits. Concepts essential to understanding the discipline: competencies, ethics, health education theories and philosophies, and career opportunities for professional health educators in school and community settings. F, S

HE 2230 Introduction to Addictions 3 credits. Four primary aspects of addiction: the physiology of drugs of abuse and chemical addiction, the assessment and diagnosis of chemical dependency, the treatment of addictive disorders, and topics focused on special populations. Se

HE 2232 Helping Theories 3 credits. Provides an introduction to the essential components and techniques of addiction counseling. Students will learn the basic facilitation model, group techniques, counseling theories, issues faced by beginning counselors, and characteristics of the effective counselor. Su

HE 2233 Harmful and Illicit Substances 3 credits. This course is designed to introduce students to drug classification systems and specific drugs within each classification. The psychological and physical effects, signs and symptoms of use, abuse, dependency, overdose, and withdrawal. Su

HE 2234 Blood Borne Illness 1 credit. Provides a basic understanding of blood borne pathogens/infectious diseases within an addictions framework. Promotes competency and ethical responsibility in assessing client needs in regard to blood borne pathogens/infectious diseases. Se

HE 2235 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. Se

HE 2270 Peer Education in Health 2 credits. Covers methods and techniques of presenting health information to college

students. Interview required with instructor prior to enrolling. May be repeated to 4 credits. PREREQ: Approval of instructor. F, S

HE 2287 Healthful Cooking 2 credits. Nutritional components of food, food preparation techniques, and recipe selection and development, all from a health perspective. Emphasis on food products that are both healthful and flavorful. PREREQ: NTD 1139 or NTD 2239. S

HE 2290 Alcohol and Drug Awareness II 1 credit. Case studies of active drug users and recovering addicts; in-depth discussion of the family dynamics of drug/alcohol abusers; medical aspects of chemical dependency. PREREQ: HE 1190. F, S, Su

HE 3310 Screening and Assessment of Substance Abuse 3 credits. Provides a basic understanding of appraisal techniques within an addictions framework. Promotes competency and ethical responsibility in assessing clients. Enhances the ability to assess client's needs based on clinical knowledge and instrumentation. Se

HE 3311 Case Management of Substance Abuse 3 credits. Provides a basic understanding of case management philosophy and basic case management skills within an addictions framework. Promotes competency and ethical responsibilities. Se

HE 3312 Ethics for the Addictions Counselor 3 credits. Provides information regarding ethical and legal issues in the field of chemical dependency counseling. Topics include values and helping relationships, client's rights and counselor responsibilities. Se

HE 3313 Practicum for the Chemical Dependency Counselor 3 credits. Practical experience in a field-based setting congruent with the core functions of a chemical dependency counselor including: assessment, counseling, groups, education, and professional responsibility. Se

HE 3314 Group Skills for Addiction Counselors 3 credits. Introduces students to group theory and practice as a treatment modality in counseling clients with chemical dependency issues. Se

HE 3340 Fitness and Wellness Programs 3 credits. A study of the theory, development, and application of components necessary for providing fitness and wellness programs in a variety of settings. PREREQ OR COREQ: HE 2200, HE 2221, and either NTD 1139 or NTD 2239. F

HE 3342 Stress and Emotional Health 3 credits. Stress response, causes of stress, and stress management techniques/strategies. Effect of the mind on the body relative to various disease states. Includes the connection between spirituality and health; and emotional health-related topics such as anger, depression and stress, and sleep deprivation. PREREQ: Admission to Health and Nutrition Science or permission of instructor. F

HE 3383 Epidemiology 3 credits. The study of the distribution, frequency and determinants of diseases and injuries in human populations with the overall goal of implementing prevention and control programs. PREREQ: MATH 1153. F

HE 4401 Issues in Health and Wellness 1-3 credits. Contemporary health and wellness issues emphasizing education interventions and application. Topics may include, but are not limited to, death and dying, computer technology in health, healthy aging, motivation, emergency preparedness, alternative and complementary medicine, international health. May be repeated for up to 6 credits with different content. F, S, Su

HE 4410 Health Behavior Change Theory and Application 3 credits. Provides a basic understanding of the social, emotional, and lifestyle factors related to health behavior. Strategies designed to identify barriers to behavior and to enhance the health of selected populations are examined. PREREQ: HE 2200, HE 2221, and either NTD 1139 or NTD 2239, and permission of instructor. F, Su, D

HE 4420 Health Program 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: HE 4410. S, D

HE 4425 Patient Education Skills 2 credits. Foundations and application of organizational and communication skills which promote a positive atmosphere for patient education in clinical and worksite settings. S, D

HE 4430 Curriculum and Methods in Health Education 3 credits. Curriculum planning, implementation, methodology, and evaluative procedures utilized in the school health education setting. Emphasis will be placed on the integration of content and practical experiences. PREREQ OR COREQ: HE 2200, HE 2221, and either NTD 1139 or NTD 2239. S

HE 4432 Community and Public Health 3 credits. Aspects of the community that relate to health; identification and analysis of community and public health programs; organizational pattern and functions of voluntary and governmental health agencies; organizing the community for health action; and coordination of community and public health programs. PREREQ OR COREQ: HE 4410. F, D

HE 4435 Health Program Evaluation and Research 3 credits. The application of research and evaluation models for decision-making program and policy development of community health education interventions. Focus on the individual, family, and social network levels of practice. PREREQ: HE 4420. S, D

HE 4442 Environmental Health 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 Health and Nutrition Science or permission of instructor. S, D

HE 4443 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 Health and Nutrition Science or permission of instructor. F, D

HE 4445 Human Sexuality and Health Education 3 credits. Study of the multifaceted nature of human sexuality with an emphasis on school and community-level educational programs. PREREQ: Admission to Health and Nutrition Science or permission of instructor. S, D

HE 4473 Health Program Marketing 3 credits. Current marketing trends in the health care marketplace. Consumer orientation; health care marketing plans, strategy development, basic public health and free-enterprise marketing principles. Strategies to promote social change and the importance of core human values of freedom, autonomy, control, and fairness. Cross-listed as HCA 4473. PREREQ OR COREQ: HE 4420 and HE 4432. F, D

HE 4485 Independent Problems in Health Education 1-3 credits. Individual work under staff guidance. Field and/or library research on specific health education problems of interest to majors and minors. PREREQ: Permission of instructor. May be repeated up to 6 credits. F, S, Su

HE 4490 Practicum - Health Education 8, 12, or 16 credits. Practical experience in a field-based setting, congruent with student's employment goals. Required for community/ worksite health option students. PREREQ: Senior standing in Health Education. PREREQ OR COREQ: HE 2200, HE 2221, and either NTD 1139 or NTD 2239. Graded S/U. F, S, Su

HE 4491 Health Education Workshop 1-3 credits. A critical analysis of one or more areas of health education. Limited enrollment. PREREQ: Permission of instructor. F, S, Su

HE 4498 Professional Education Development 1-3 credits. A course for the practicing health educator aimed at the development and improvement of educational skills. Various sections will have different subtitles. Graded S/U. D

Bachelor of Science in Dietetics

Didactic Program in Dietetics

The mission of the Didactic Program in Dietetics (DPD) program at Idaho State University is to provide courses for students to earn a Baccalaureate degree which prepares students to enter into, and to successfully complete an accredited dietetic internship.

The philosophy of the Idaho State University Dietetics Program has been, since its inception, to educate individuals through didactic training and practical experiences in the field of dietetics, and to develop visionary and competent individuals who will be able to understand and to solve complex problems encountered by the professional dietitian. Practical experiences are incorporated in both lecture and

laboratory courses in medical nutrition therapy, food service systems management and community nutrition.

Prospective students should schedule a conference with the Program Director. The requirements of the program, curriculum, supervised practice experience, and registration examination are explained to prospective and current students in the program.

Completion of the required course work and attainment of a Bachelor of Science degree in Dietetics makes one eligible to apply for admission into a Dietetic Internship. The graduate must complete a dietetic internship prior to becoming eligible to take the National Registration Exam for Dietitians.

NOTE: Enrollment in the Idaho State University Didactic Program in Dietetics and/or fulfillment of specific requirements does not ensure admission into the Dietetic Internship Program.

Program Goals and Outcome Measures

The following goals and outcome measures were identified in the 2008 Accreditation Self Study Report. These goals and outcome measures reflect the mission and philosophy of the Idaho State University DPD and are the basis for program evaluation and effectiveness.

1. *Program Goal One: Prepare students to perform competently in a dietetic internship (DI) in preparation to be an entry-level dietitian.*

Outcome Measures

- a. 75% of graduates who apply, will be accepted to a dietetic internship.
- b. 85% of graduates will pass the registration exam upon the first try based upon a five year average.
- c. 90% of graduates will pass the registration exam upon the third try (combined 1st time and repeat test takers) based upon a five year average.
- d. 90% of responding graduates will indicate a satisfactory or better response that the DPD program prepared them for their supervised practice experience and career as an R.D.
- e. 75% of graduates who have finished their supervised practice experience and are seeking employment will be employed within 6 months of passing the RD exam.
- f. 90% of graduates from this program will receive satisfactory ratings or better on

their knowledge and skill of dietetics from their employer or DI director.

2. **Program Goal Two: Provide didactic and field experiences for students by continuing cooperative relationships with community, clinical and food service management dietitians, other health care professionals and administrators in order to prepare graduates to work in the current health-care environment and in industry.**

Outcome Measures

- Students will be assigned learning experiences in a minimum of two different experiential sites for both food service, community courses and one experiential site for medical nutrition therapy courses.
- 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.
- 90% of graduates from this program will receive “satisfactory” ratings or better from their employer or DI director.
- 1/3 of DAC members will consist of external constituents and/or preceptors from facilities providing learning experiences to dietetic students.
- 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

- 90% of students who enter the DPD will complete it within 4 semesters of being admitted to the DPD program.
- 75% of all dietetics majors will obtain advising once per year.
- 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:

- Accumulative GPA of 3.0 or above on a 4.0 scale.

- Completion of required courses listed under pre-dietetics with no course grade lower than a C in any of the following classes: CHEM 1101, 1102, 1103; BIOL 1101, 2221, 2221L, 3301, 3302; ENGL 1101, 1102; and NTD 1104, 2204, 2239.

- Completion of ISU general education requirements is strongly suggested prior to applying and must be completed before graduation.

Students may apply to the professional component of the Didactic Program in Dietetics (DPD) only in the spring semester once requirements are met. Appointments are awarded to begin the following fall semester. Requirements for the DPD include: a 3.0 accumulative grade-point-average or above; completion of several of the ISU General Education requirements including several basic sciences and English, along with pre-requisite food and nutrition courses.

Application Process:

Students may apply to the professional component of the DPD only in the spring semester once requirements are met. Applicants must complete the DPD application, write a letter of application, and include an application fee of \$20. In addition, transcripts of all colleges and universities attended other than ISU must be submitted unless required classes taken at other colleges or universities are already listed on the student’s ISU transcript. Applications will not be reviewed until all application materials have been received. The application deadline is February 15th.

Application should include the following:

- A completed DPD application form.
- Official sealed transcripts from all colleges and universities other than ISU (see conditions above).
- A typed letter of application stating reasons for selected dietetics as a career and professional goals.
- A non-refundable application of \$20 (make check payable to the Department of Health and Nutrition Sciences).
- 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

BIOL 1101,1101L	Biology I, and Lab	4 cr
BIOL 2221,2221L	Introductory Microbiology, and Lab	4 cr
BIOL 3301,3301L	Anatomy and Physiology and Lab	4 cr
BIOL 3302,3302L	Anatomy and Physiology and Lab	4 cr
CHEM 1101	Introduction to General Chemistry	3 cr
CHEM 1102,1103	Introduction to Organic and Biochemistry, and Lab	4 cr
COMM 1101	Principles of Speech	3 cr
ECON 2201	Principles of Macroeconomics	3 cr
ENGL 1101	English Composition	3 cr
ENGL 1102	Critical Reading and Writing	3 cr
HCA/HE 2210	Medical Terminology and Communication	2 cr
MATH 1143	College Algebra	3 cr
MATH 1153	Introduction to Statistics	3 cr
NTD 1104	Foods	3 cr
NTD 2204	Meal Management	2 cr
NTD 2239	Nutrition	3 cr
PSYC 1101	Introduction to General Psychology	3 cr
SOC 1101	Introduction to Sociology	3 cr

In addition: University General Education Requirements Goals 6, 7 or 8, 9 or 10A or 10B

Didactic Program in Dietetics Required Courses

ACCT 3303	Accounting Concepts	3 cr
MGT 3312	Individual and Organizational Behavior	3 cr
NTD 3300	Medical Nutrition Therapy I	3 cr
NTD 3300L	Medical Nutrition Therapy I Laboratory	2 cr
NTD 3301	Medical Nutrition Therapy II	3 cr
NTD 3301L	Medical Nutrition Therapy II Laboratory	2 cr
NTD 3360	Nutrition Through the Lifecycle	3 cr
NTD 3312	Quantity Foods	2 cr
NTD 3312L	Quantity Foods Laboratory	1 cr
NTD 4407	Principles of Community Nutrition	3 cr
NTD 4408	Applications in Community Nutrition	3 cr
NTD 4410	Food Service Systems Management	3 cr
NTD 4410L	Food Service Systems Management Laboratory	2 cr
NTD 4457	Experimental Foods	3 cr

NTD 4461	Nutritional Biochemistry I	3 cr
NTD 4470	Dietetics Senior Seminar	2 cr
NTD 4485	Nutritional Biochemistry II	3 cr

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 Meridian, will be admitted to the program with the April computer match, with a start date in August.

NOTE: Enrollment in the Idaho State University Didactic Program in Dietetics and/or fulfillment of specific requirements does not ensure admission into the Dietetic Internship Program.

New students are admitted to the Dietetic Internship Program for the fall semester. **Candidates should submit all application materials no later than February 15th for admission the following fall**

semester. Application 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 greater 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 Meridian, 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 Meridian, no University housing is available.

Transportation

Each student should have his or her own car or, at least, access to one. Some rotation sites are up to 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 Meridian Application to:

Idaho State University - Meridian
Ruth Schneider, MPH, RD, LD
1311 E Central Dr.
Meridian, ID 83642

Required Courses*

NTD 4488	Internship in Dietetics I	15 cr
NTD 4489	Internship in Dietetics II	15 cr

* A \$1000 course fee will be applied in addition to tuition for each NTD 4488 and NTD 4489.

Nutrition and Dietetics Courses

NTD 1104 Foods 3 credits. Fundamental processes underlying food preparation with emphasis on the chemical and physical properties of foods. Lecture and laboratory. F

NTD 1139 Consumer Nutrition 3 credits. Introduction to nutrition, relationships among food choices, levels of nutrition, health of the individual and family. Experiences in dietary analysis, label and advertising critiques, and discussions of current trends. Designed for non-science majors. F, S

NTD 2204 Meal Management 2 credits. Management of money, time, and energy for the selection, preparation, and service of nutritious meals to fit current lifestyles. Lecture and laboratory. PREREQ: NTD 1104. S

NTD 2239 Nutrition 3 credits. Descriptive survey of nutrients required by the human body and the health consequences of nutrition practices. Study of food sources and proper dietary selection needed to fulfill human needs. PREREQ: CHEM 1101; CHEM 1102 recommended. F, S

NTD 3300 Medical Nutrition Therapy I 3 credits. Medical nutrition therapy for the prevention and treatment of diseases including obesity, eating disorders, diseases of the liver and gastrointestinal tract, cardiovascular disease and diabetes mellitus. PREREQ: Acceptance into Didactic Program in Dietetics. COREQ: NTD 3300L. F

NTD 3300L Medical Nutrition Therapy I Lab 2 credits (6 contact hours). Introduction to the profession of dietetics and medical nutrition therapy. Development of nutrition assessment skills, care plans and modified diet writing. PREREQ: Acceptance into Didactic Program in Dietetics. COREQ: NTD 3300. F

NTD 3301 Medical Nutrition Therapy II 3 credits. Medical nutrition therapy in treatment of neurological and metabolic disorders, enteral and parenteral nutrition, HIV/AIDS, renal, pulmonary, neoplastic diseases, food allergies and intolerance. PREREQ: "C" or better in NTD 3300 and NTD 3300L. COREQ: NTD 3301L. S

NTD 3301L Medical Nutrition Therapy II Lab 2 credits. Medical nutrition therapy in treatment of neurological and metabolic disorders, enteral and parenteral nutrition, HIV/AIDS, renal, pulmonary, neoplastic diseases, food allergies and intolerance. PREREQ: "C" or better in NTD 3300 and NTD 3300L. COREQ: NTD 3301. S

NTD 3312 Quantity Foods 2 credits. Principles and procedures for preparation of quantity food. Experiences in food production facilities with coordination of management principles through cost control, supervision, and food production. Two hours lecture. PREREQ: "C" or better in NTD 1104 and NTD 2204. COREQ: NTD 3312L. F

NTD 3312L Quantity Foods Laboratory 1 credit. Practical application of food production methods in various facilities. COREQ: NTD 3312. F

NTD 3340 Nutrition for Health Professionals 3 credits. Nutrition through the lifecycle, function of nutrients in the body, medical nutrition

therapy in the treatment and prevention of diseases. PREREQ: BIOL 3301, BIOL 3302, or HO 1111. F, S

NTD 3360 Nutrition Through the Lifecycle 3 credits. Nutrition in pregnancy, lactation, infancy, childhood, adolescence, adulthood and senior adulthood. Physiological changes during the lifecycle and changing nutrient needs. PREREQ: "C" or better in NTD 2239. F

NTD 4407 Principles of Community Nutrition 3 credits. Introduction to nutritional programming and education in community and public health settings. Emphasis on principles of needs assessments, program planning, implementation and evaluation. Discussion of national nutrition status, food insecurity and identification of those at highest risk. PREREQ: "C" or better in NTD 3360, or NTD 2239 and permission of instructor. F

NTD 4408 Applications in Community Nutrition 3 credits. Application of nutritional programming and education in community and public health settings. Emphasis on conducting needs assessments, program planning, implementation and evaluation, nutrition presentations and nutrition counseling skills development. PREREQ: "C" or better in NTD 4407. S

NTD 4409 Professional Readings 1-3 credits. Identification and investigation of conceptual ideas about the relationship of programs, trends, legislation, and developments in food and nutrition. PREREQ: Permission of instructor. D

NTD 4410 Food Service Systems Management 3 credits. Principles and concepts of food service management planning, organization, and controls. Development of skills through projects in food service facilities. PREREQ: "C" or better in NTD 3312 and NTD 3312L. COREQ: NTD 4410L. S

NTD 4410L Food Service Systems Management Laboratory 2 credits. Practical application of food service management skills in various facilities. COREQ: NTD 4410. S

NTD 4439 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 2239. D

NTD 4457 Experimental Foods 3 credits. Development of experimental methods and their application to cookery and food technology; preparation of student for independent investigation in foods; acquaintance with literature in the field. Two hours lecture/four hours laboratory. PREREQ: Junior standing and NTD 1104. F

NTD 4461 Nutritional Biochemistry I 3 credits. Advanced study of nutrition science, including protein, carbohydrate, lipid, vitamin, and mineral metabolism. Introduction to research methodology and professional literature. PREREQ: NTD 2239, CHEM 1101, CHEM 1102, and CHEM 1103 or higher levels of chemistry including inorganic, organic, and biochemistry. F

NTD 4470 Dietetics Senior Seminar 2 credits. Current issues in food and nutrition. Discus-

sion of research and application to practice. PREREQ: Senior in Dietetics. S

NTD 4481 Special Problems in Nutrition and Dietetics 1-2 credits. Students select problems on the basis of special needs, interests, or abilities and work on them independently in the laboratory, library, or community, with regular conferences with the advisor. PREREQ: Permission of instructor. D

NTD 4485 Nutritional Biochemistry II 3 credits. Human metabolism in health and disease. Emphasizes interrelationships among hormones, carbohydrates, proteins, lipids, vitamins and minerals within tissues and organs. PREREQ: "C" or better in NTD 4461 or permission of instructor. S

NTD 4488 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

NTD 4489 Internship in Dietetics II 15 credits. Continuation of NTD 4488 with supervised field experience at regional health care facilities and food service establishments and community programs. Emphasis on entry level skills in clinical, community, and administrative dietetics. PREREQ: NTD 4488. Graded S/U. S

NTD 4492 Special Problems in Nutrition and Dietetics 1-2 credits. Students select problems on the basis of special needs, interests, or abilities and work on them independently in the laboratory, library, or community, with regular conferences with the advisor. PREREQ: Permission of instructor. D

NTD 4495 Dental Nutrition 1 credit. This course reviews the role of nutrition in attaining and maintaining optimal oral health. The course explores how the essential nutrients influence oral health, nutrition in special populations, and nutrition and disease processes that can influence oral health. This course is only available to students in the Idaho Dental Education Program in the Department of Dental Science. S

Health Care Administration

Program Director and Associate

Professor: Cellucci

Professor: Wiggins

Visiting Assistant Professor: Farnsworth

Adjunct Faculty: Hermanson, Weeg, Wright

Mission

The Health Care Administration program provides quality education and lifelong learning opportunities to current and future healthcare leaders in Idaho. We support Idaho State University's Mission as the center for education of health professionals in the State of Idaho by maximizing value

to our students and stakeholders, and to our state, in the enhancement of the knowledge and ability of healthcare professionals to lead their organizations, to serve their communities and, in turn, to improve the health status of their communities.

Learning Goals

The Health Care Administration program delivers state-of-the-art education to traditional and nontraditional students using a theoretical and programmatic approach. We address emerging industry needs using innovative instructional methods to deliver valid competencies and educational outcomes based on industry's and our constituency's needs.

Specifically, we:

- prepare individuals for entry or mid-level management positions in group practice, ambulatory care, long-term care, hospitals, managed care organizations, and other health-related organizations.
- develop administrative, technical, problem-solving, conceptual, and human relations knowledge and skills that provide the foundation for future healthcare administrators and leaders.
- use industry competency models and current evidence on teaching and learning to provide students the best quality education possible.
- foster practical educational experiences and promote interaction among students, alumni, and mentors in area and regional health organizations.
- work with each student in the program to ensure proper placement and professional development in administrative internships and initial positions assuring an appropriate match between the individual and the healthcare organization.

Health care facilities constitute some of the most complex institutions in our society. These facilities and the scope of their services are becoming more responsive to the community they serve. The health care administrator is at the forefront of these activities and is in demand in a number of organizations, including hospitals, extended-care facilities, group practices, insurance companies, state and federal health agencies, educational programs and research institutions. The purpose of the undergraduate program in health care administration at Idaho State University is to prepare students for the wide range of activities needed for administration of health

care facilities and to provide service courses for students majoring in other health-related programs. Also, the program is designed to provide students with the basic requirements to pursue a graduate degree in the field. The curriculum leads to a Bachelor of Science degree in health care administration with a minor in business administration. Students may enroll in the program at the beginning of any semester and must meet requirements provided below:

Bachelor of Science in Health Care Administration

Courses Which Fulfill Both General Education Goals and Major Requirements

Goal 11		
ECON 2201	Principles of Macroeconomics	3 cr
Goal 12		
ANTH 1100	General Anthropology	3 cr
	OR	
PSYC 1101	Introduction to General Psychology I	3 cr
	OR	
SOC 1101	Introduction to Sociology	3 cr

Other Required Courses

ECON 2202	Principles of Macroeconomics	3 cr
ECON 3303	Health Economics	3 cr
MATH 1143	College Algebra	3 cr
	TOTAL:	9 cr

Business Core Requirements

ACCT 2201	Principles of Accounting I	3 cr
ACCT 2202	Principles of Accounting II	3 cr
BA 3301	Professional Development Seminar II	1 cr
CIS 3301	Information Systems and Problem Solving	2 cr
FIN 3315	Corporate Financial Management	3 cr
MGT 2216	Business Statistics I	3 cr
MGT 2217	Business Statistics II	3 cr
MGT 3312	Individual and Organization Behavior	3 cr
MGT 3329	Operations/Production Management	3 cr
MKTG 3325	Basic Marketing Management	3 cr

Health Care Administration Core Requirements

HCA 1115	U.S. Health System	3 cr
HCA 1120	Health and Society	2 cr
HCA 2215	Healthcare Leadership	3 cr
HCA 2230	Insurance and Reimbursement	2 cr
HCA 3330	Health Information Systems	3 cr
HCA 3340	Healthcare Policy	2 cr
HCA 3384	Human Resource Management in Health Care Organizations	3 cr
HCA 4453	Healthcare Finance	3 cr
HCA 4455	Health Organization Management and Strategy	3 cr
HCA 4460	Operations and Quality	3 cr

HCA 4473	Marketing for Health Care Organizations	3 cr
HCA 4475	Health Law and Bioethics	3 cr
HCA 4495	Administrative Internship	4 cr

Plus 2 credits from the following

courses:

HCA 3352	Long Term Care Management	2 cr
HCA 3353	Physician Practice and Ambulatory Care Management	2 cr
HCA 3354	Health Management Communication	2 cr
	TOTAL:	6 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 2201, ECON 2201, HCA 1115, Goal 1, Goal 2, and MATH 1143.

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 4000-level courses are reserved for HCA majors. Non-HCA majors must secure the permission of the instructor to enroll in HCA 4000-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 Major in Computer Information Systems in addition to the Health Care Information Systems Management Major. Information systems play an increasingly important role in the burgeoning healthcare field. The Health Care Information Systems Management (HISM) degree is intended to develop the skills necessary to manage information systems in a healthcare environment. Combining courses in healthcare administration, general business, and computer information systems, the HISM degree prepares students to work in hospitals, health clinics, and doctor's offices, as well as other health-related organizations.

Required Courses:

CIS 1120	Foundations of Computer Programming	3 cr
CIS 2285	Introduction to Software and Systems Architecture	3 cr
CIS 4403	Systems Analysis and Logical Design	3 cr
CIS 4407	Database Design and Implementation	3 cr
CIS 4411	Intermediate Information Assurance	3 cr
CIS 4485	Network and Communications Systems	3 cr
MGT 4482	Project Management	3 cr
HCA 1115	U.S. Health System	3 cr
HCA 3330	Health Information Systems	3 cr
HCA 4460	Operations and Quality	3 cr
HCA 4489	Health Care Information Systems Practicum	3 cr
		TOTAL: 33 cr

Health Care Administration Courses

HCA 1110 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 1115 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 1120 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 2210 Medical Terminology and Communication 2 credits. Terminology and vocabulary basic to all areas of medical science, hospital services, and allied health specialties. Develops skills in correct written and oral usage of medical terms. Cross-listed as HE 2210. F, S

HCA 2215 Healthcare Leadership 3 credits. This course actively teaches the relational, operational, and analytical skills key to success in health management. S

HCA 2230 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 1115. S

HCA 3330 Health Information Systems 3 credits. An overview of information system methodologies and approaches in the administration and delivery of health services including data content and structure, quality, and legal issues related to collection, use, and the security of health information. PREREQ: HCA 1115 and MGT 2216. F

HCA 3340 Healthcare Policy 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 2230. F

HCA 3350 Organizational Behavior in Healthcare 3 credits. Study of individual and group behavior in HCOs. Topics include social responsibility and ethics; decision making; motivation; leadership; communication; power, politics and stress; organizational culture, change and development. S

HCA 3352 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. Su

HCA 3353 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 out-patient setting. PREREQ: HCA 1115, HCA 1120, HCA 2215, and HCA 2230. D

HCA 3354 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 1115, HCA 1120, HCA 2215, and HCA 2230. D

HCA 3384 Human Resource Management in Healthcare Organizations 3 credits. Create and maintain a productive health workforce by understanding the science and practice of managing the employment relationship, including human resource planning, job analysis, recruitment, selection, development, performance planning, compensation, employee relations, and the legal environment. PREREQ: HCA 3350 or MGT 3312. F

HCA 4450 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 4453 Healthcare Finance 3 credits. The application of financial management principles, practices, and techniques used in healthcare organizations. An understanding and analysis of how these financial tools are used in decision making and how they are integrated into the healthcare organization's planning process. PREREQ: ACCT 2202 and FIN 3315. S

HCA 4455 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 3330, HCA 3375, HCA 3384 and MGT 3312. F

HCA 4460 Operations and Quality 3 credits. Course examines the manager's role in improving healthcare quality and outcomes, including clinical and organizational improvement, technology assessment, and quality improvement practices. PREREQ: All HCA 3000 level courses and MGT 3329, or permission of instructor. S

HCA 4473 Marketing for Healthcare Organizations 3 credits. Current marketing trends in the health care marketplace. Consumer orientation; health care marketing plans and strategy development. Cross-listed as HE 4473. PREREQ: MKTG 3325. S

HCA 4475 Health Law and Bioethics 3 credits. This course develops a roadmap to facilitate risk management in the provision of healthcare services. Issues addressed include regulation and licensure, liability, selected aspects of public programs, and ethical issues regarding death, reproduction, and research. S

HCA 4481 Independent Problems in Health Services Administration 1-3 credits. Student selects an area of special interest through independent study. A report will be required giving results. May be repeated for a maximum of 6 elective credits. PREREQ: HCA major. D

HCA 4489 Health Care Information Systems Practicum 3 credits. 8 hours per week under the direction of the Department of Family Medicine, with a term project.* F, S, Su

HCA 4495 Administrative Internship 4 credits. In-depth field experience in an area of interest to the student and approved by the professor. Application of course theories and techniques to practice in a health organization setting.* Graded S/U. PREREQ: Senior standing, HCA major, completion of all goal and required courses, one HCA elective, and permission of instructor. Su

**Some facilities may require a background check. When required, this check will be conducted at the student's expense.*

Department of Physical and Occupational Therapy

Chair and Associate Professor: Helgeson
OT Program Director and Assistant

Professor: Eakman

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 3.0 overall GPA for all prerequisite course work and a 3.0 GPA in each science area is required for consideration for admission into either program. Applicants must additionally meet all requirements for admission to the Graduate School. In addition to specific course prerequisites, applicants will have to provide evidence of having worked in a physical therapy or an occupational therapy setting as an aide or volunteer.

Undergraduate students preparing for physical or occupational therapy should choose a major which is of interest to them and which will assist in completion of prerequisite course work. Baccalaureate students will have advisors in their major department, but should also seek additional health professions advising through the Department of Biological Sciences. Students who have completed a baccalaureate degree and who are completing prerequisites for physical or occupational therapy should call the Department of Physical and Occupational Therapy for appropriate advising. For further information on physical therapy or occupational therapy entrance requirements and program description, refer to the Graduate Catalog 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 have been completed within the last 7 years. Courses on human anatomy and physiology **MUST** be listed in Biology, Zoology, Anatomy or Physiology Departments for fulfillment of this requirement.

- **CHEMISTRY (2 courses)**

1 & 2. Introductory Chemistry with laboratory. Must be courses for science majors. 2 semesters or 2-3 quarters. A more recently completed chemistry course at upper division or graduate level with laboratory may also meet this requirement.

- **PHYSICS (2 courses)**

1 & 2. Introductory Physics with laboratory. Must be courses for science majors. 2

semesters or 2-3 quarters. A more recently completed physics course at upper division or graduate level with laboratory may also meet this requirement.

- **MATHEMATICS (1 course)**

1. Statistics - 3 or more units. Courses about research methods or tests and measurements will NOT meet this requirement.

- **PSYCHOLOGY and SOCIOLOGY or ANTHROPOLOGY or HEALTH SCIENCE (5 courses)**

1. Introductory Psychology. More recent upper division psychology courses may be accepted.

2. Sociology or Anthropology or Health Science or Psychology (1 course). This course must be relevant to health care, rural societies, cultural diversity, aging, health care administration, abnormal psychology or epidemiology. Marriage/Family, religion or history courses will NOT meet this requirement.

3. Course in Human Development 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 be able to use word processing and spreadsheet software prior to entry 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 growing population of aging adults, children with developmental disabilities and those who struggle with traumatic injuries and illness. When one experiences physical or mental illness or injury, it is the job of the occupational therapist to help the individual return to work, family roles and satisfying life.

The curative nature of occupational therapy is extremely broad and requires individuals with an interest in the complexity of humanity and occupations. One also needs an ability to think critically and creatively and be able to address occupational performance problems resulting from disease, trauma and mental illness. To be prepared, a student must enter the profession with a foundation in the liberal arts in addition to biological, physical, and social sciences.

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.

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. Courses on human anatomy and physiology MUST be listed in Biology, Zoology, Anatomy or Physiology Departments for fulfillment of this requirement.

• CHEMISTRY (1 course, 4 credits)

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. Courses about research methods or tests and measurements 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
- education
- ethics
- fine arts
- foreign language
- history
- humanities
- literature
- philosophy

• HIGHLY RECOMMENDED:

Introductory Physics with Laboratory

Computer Competence

Applicants must be competent in working with computers and be able to use word processing and spreadsheet software prior to entry into the program.

Curriculum for BUS Degree Pre-entrants

Fall Semester

BIOL 4474	Human Anatomy	5 cr
BIOL 4486	Pathophysiology	5 cr
PTOT 4412	Professional Communication	2 cr
PTOT 4413	Occupational Therapy Profession	3 cr

Spring Semester

PTOT 4401	Kinesiology and Biomechanics	4 cr
PTOT 4402	Clinical Neuroscience	5 cr
PTOT 4421	Self-Exploration in Occupational Therapy	3 cr
PTOT 4422	Occupational Performance	3 cr
PTOT 4442	Occupational Performance Laboratory	1 cr

Physical and Occupational Therapy Courses

PTOT 4401 Clinical Kinesiology and Biomechanics 4 credits. Analysis of normal and pathological human movement in joints, posture, gait, and the vertebral column. Application of movements to therapeutic interventions is emphasized. PREREQ: "B-" or better in BIOL 4474. S

PTOT 4402 Clinical Neuroscience 5 credits. Study of structure and function of the human nervous system or the cellular and systemic levels. Specific application to clinical management of neurological problems and pathology. PREREQ: "B-" or better in BIOL 4474 and BIOL 4486. S

PTOT 4412 Professional Communication 2 credits. Introduction to standard forms of professional communication in physical and occupational therapy and among other health care professions. Medical record-keeping and interdisciplinary communication are emphasized. F

PTOT 4413 Occupational Therapy Profession 3 credits. Historical overview of occupational therapy in health care, education and psychosocial settings. Occupational therapy process, rural human service delivery system, professionalism, ethics, and legal issues will be examined. F

PTOT 4421 Self-Exploration in Occupation 3 credits. Focus on self-exploration in occupation and purposeful activity. Self-evaluation in occupational performance areas, components, and context. The student will complete a self-development plan in occupation. Su

PTOT 4422 Occupational Performance 3 credits. Person/occupation/environment interactions are examined from the perspective of multiple theories and models that analyze typical occupations and address performance dysfunctions. PREREQ: "B" or better in PTOT 4413 and PTOT 4421. COREQ: PTOT 4442. S

PTOT 4442 Occupational Performance Laboratory 1 credit. Introduction to and practice using occupation-focused evaluation tools and methodologies used in analyzing, evaluating, and categorizing occupational performance. COREQ: PTOT 4422. S

Department of Physician Assistant Studies

Chair and Program Director: Schroeder
Medical Director: D'Souza
Associate Professor: Phelps
Assistant Professor: 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 4489 Independent Problems in Physician Assistant Studies 1-3 credits. Explore the field of Physician Assistant through experiential learning predominantly by participating in research with PAS program faculty. May be repeated for up to 3 credits. PREREQ: Approval of PAS Director. F, S, Su

Department of Radiographic Science

Chair and Associate Professor: Francis
Associate Professor: Hobbs
Assistant Professor: Mickelsen
Clinical Affiliate Faculty: Bird, Eng,
Sargeant, Struhs, Wells

Accreditation

Idaho State University is fully accredited by the Northwest Commission on Colleges and Universities (NWCCU).

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 1101,1101L	Biology I, and Lab (Goal 4)	4 cr
BIOL 3301,3301L	Anatomy and Physiology and Lab	4 cr
BIOL 3302,3302L	Anatomy and Physiology and Lab	4 cr
CIS 1101	Introduction to Computer Systems	3 cr
ENGL 1101	English Composition (Part of Goal 1)	3 cr
COMM 1101	Principles of Speech (Goal 2)	3 cr
HCA 1110	Introduction to the Allied Health Professions	2 cr
HCA 2210	Medical Terminology and Communication	2 cr
MATH 1143	College Algebra	3 cr
PHYS 1100	Essentials of Physics (Goal 5)	4 cr
PSYC 1101*	Introduction to General Psychology (Goal 12)	3 cr
RS 1105	Introduction to Radiographic Science	1 cr
	TOTAL:	36 cr

PREPROFESSIONAL YEAR II

Bachelor of Science

ACCT 2201	Principles of Accounting	3 cr
HCA 3350	Organizational Behavior in Health Care (Spring only)	3 cr
	OR	
MGT 3312	Individual and Organizational Behavior	3 cr
HCA 3375	Health Care Law (Spring Only)	3 cr
HCA 3384	Human Resource Management in Health Care Organizations (Fall Only)	3 cr
	OR	
MGT 4473	Personnel Management	3 cr
ART 1100*	Survey of Art (Goal 6)	3 cr
CHEM 1101	Introduction to General Chemistry	3 cr
	OR	
CHEM 1111, 1111L	General Chemistry I, and Lab	5 cr
ECON 2201*	Principles of Macroeconomics (Goal 11)	3 cr
ENGL 1102	Critical Reading and Writing (Goal 1)	3 cr
HIST 1112*	U.S. History II (to Present) (Goal 9)	3 cr

MATH 1153	Introduction to Statistics (Goal 3)	3 cr
PHIL 1101*	Introduction to Philosophy (Goal 8)	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		
RS 3310	Radiographic Methods I	2 cr
RS 3320, 3320L	Radiographic Processing, and Lab	2 cr
RS 3325	Patient Care in Radiography	3 cr
RS 3330	Radiographic Exposure (with Lab)	3 cr
RS 3340	Laboratory Practicum I	1 cr
RS 3389	Applied Radiography I	4 cr
	TOTAL:	15 cr

Spring Semester

RS 3311	Radiographic Methods II	2 cr
RS 3341	Laboratory Practicum II	1 cr
RS 3375	Pediatric Radiography	1 cr
RS 3388	Radiation Protection	1 cr
RS 3390	Applied Radiography II	4 cr
BIOL 4470	Sectional Anatomy	2 cr
PHYS 3300	Medical Electronics	2 cr
PHYS 3321	Radiologic Physics (with Lab)	2 cr
	TOTAL:	15 cr

PROFESSIONAL YEAR II

Summer Semester

RS 4488	Applied Radiography III	5 cr
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Fall Semester

RS 3312	Radiographic Methods III	2 cr
RS 3342	Laboratory Practicum III	1 cr
RS 4420	Radiologic Facility Organization (B.S. degree only)	1 cr
RS 4450	Alternate Imaging Modalities and Radiation Therapy	1 cr
RS 4460	Introduction to Radiographic Quality Assurance	2 cr
RS 4489	Applied Radiography IV	6 cr
	TOTAL:	13 cr

Spring Semester

BIOL 3307	Radiobiology	2 cr
RS 4430	Radiographic Pathology	2 cr
RS 4441	Advanced Radiographic Methods I	1 cr
RS 4470	Advanced Radiographic Exposure	2 cr
RS 4481	Independent Study (Optional)	2 cr
RS 4490	Applied Radiography V	6 cr
	TOTAL:	13 or 15 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 (RS) will be dismissed from the program and prohibited from taking any further courses with the RS designation until the course(s) in question has/have been completed with (a) minimum grade(s) of "C."

The student is required to reapply to the program, in writing, at least one (1) month prior to the first day of classes of the semester in which readmission is sought. Additional details regarding readmission can be found in the current Radiographic Science Student Handbook.

Radiographic Science Courses

RS 1105 Introduction to Radiographic Science 1 credit. History of the profession, responsibilities of the technologist, professional development, radiation protection, areas of specialization. F, S, W

RS 3310 Radiographic Methods I 2 credits. Theory and principles of radiographic examination of the extremities, shoulder girdle, and the pelvic girdle. F

RS 3311 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

RS 3312 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

RS 3320 Radiographic Processing 1 credit. Photographic technique including developing methodology and the chemical effects on radiographic film. F

RS 320L Radiographic Processing Laboratory 1 credit. Laboratory experience with photographic technique including developing methodology and the chemical effects on radiographic film. F

RS 3325 Patient Care in Radiography 3 credits. Introduction to patient care principles and procedures utilized in radiography including vital signs, body mechanics, catheterization, sterile procedures, drug administration, isolation techniques and medical emergency procedures. F

RS 3330 Radiographic Exposure 3 credits. Determination of radiographic exposure values with emphasis on radiographic quality and equipment used in the production of radiographs. COREQ: RS 3330L. F

RS 3330L Radiographic Exposure Lab 0 credits. COREQ: RS 3330. F

RS 3340 Laboratory Practicum I 1 credit. Designed to develop pre-clinical competency in routine hospital procedures and radiographic tasks, basic x-ray interpretation, patient management, communications, and manipulation of x-ray equipment. F

RS 3341 Laboratory Practicum II 1 credit. Designed to develop pre-clinical competency in routine hospital procedures and radiographic tasks, basic x-ray interpretation, patient management, communications, and manipulation of x-ray equipment. COREQ: RS 3311 and RS 3389. S

RS 3342 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: RS 3312 and RS 3390. S

RS 3375 Pediatric Radiography 1 credit. Study of the theory and clinical application of pediatric radiography. S

RS 3388 Radiation Protection 1 credit. Topics include: x-ray interaction with matter, quantities and units of radiation, biological effects of ionizing radiation, MPD, radiation detection instruments, methods to minimize radiation exposure to patients and personnel, and U.S. Government radiation control standards. S

RS 3389 Applied Radiography I 4 credits. Clinical applications of radiographic examinations with emphasis on the upper extremity, shoulder and chest. Graded S/U. F

RS 3390 Applied Radiography II 4 credits. Clinical applications of radiographic examinations with emphasis on the lower extremity, hips, pelvis and abdomen. Graded S/U. S

RS 4420 Radiologic Facility Organization 1 credit. Organization and operation of a radiology department. Emphasis on management, design, record systems, equipment, personnel and budgets. F

RS 4430 Radiologic Pathology 2 credits. Study of the pathological processes of various diseases and disorders with emphasis on the demonstration of pathology on radiographs. F

RS 4441 Advanced Radiographic Methods I 1 credit. Advanced methodology, theory and principles of radiographic procedures. Designed to develop proficiency in performance of specialized radiographic examinations. PREREQ: RS 3312 and RS 3342. S

RS 4450 Alternate Imaging Modalities and Radiation Therapy 1 credit. An introduction to nuclear medicine, computerized axial tomography, ultrasonography, and radiation therapy. F

RS 4460 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

RS 4470 Advanced Radiographic Exposure 2 credits. In-depth study in establishing radiographic exposure values in new installations or when equipment is changed. F

RS 4481 Independent Problems in Radiography I-2 credits. Study of topics in radiography selected by students and faculty. May be repeated to a maximum of 4 credits. D

RS 4488 Applied Radiography III 5 credits. Clinical application of radiographic examinations with emphasis on the abdomen, especially examinations requiring use of contrast media to include the esophagus. Graded S/U. Su

RS 4489 Applied Radiography IV 6 credits. Clinical application of radiographic examinations of the vertebral column, ribs and cranial structures. Graded S/U. F

RS 4490 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

RS 4491 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

RS 4495 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

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,
Erramouspe, R. Force, Lott,
Madaras-Kelly, Mason, Rhodes

Associate Professors: Cashmore,
Cleveland, Gould, Liday, Oliphant
Clinical Professor: Jue

Clinical Associate Professor: Hefflinger

Clinical Assistant Professors: Borzadek,
Carr, Casperson, Davis, Eroschenko,
Hachey, Pettinger, Pugmire, Steed,
Wadsworth

Visiting Clinical Assistant Professor:
Jantz

Adjunct Faculty: Hoagland, Robison,
Stander

Emeriti: Galizia, Hurley, Sharp

Department of Biomedical and Pharmaceutical Sciences

Interim Chair and Associate Professor:
Hunt

Professors: Bhushan, Crowell, Daniels,
Diedrich, Dodson, Lai

Associate Professors: Bigelow, Eley,
Wilson

Assistant Professor: Selvage

Emeriti: Cole, Fontenelle, Goettsch,
Hillyard, Isaacson

Accreditation

The Doctor of Pharmacy program is accredited by the Accreditation Council for Pharmacy Education (ACPE).

Professional Standards

Students enrolled in the programs of the College of Pharmacy are expected to endorse professional standards by subscribing to the Oath of the Pharmacist. Students are also expected to abide by the American Pharmaceutical Association's Code of Ethics of the Profession.

Admission to the College of Pharmacy

Application

Apply online at <http://pharmacy.isu.edu>

Admission Criteria

The recommended high school background for students planning to enter the preprofessional program at Idaho State University includes four units of mathematics and three units of natural science (biology, chemistry, and physics).

All of the preprofessional curriculum 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 course-work;
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.

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 professional courses both in and outside of the College. Policies adopted within these guidelines are distributed to all students in the professional program.

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

BIOL 1101,1101L	Biology I, and Lab (Goal 4)	4 cr
BIOL 2235,2235L	General Microbiology, and Lab	4 cr
BIOL 3301,3301L	Anatomy and Physiology, and Lab	4 cr
BIOL 3302,3302L	Anatomy and Physiology, and Lab	4 cr
BIOL 4432	Biochemistry*	3 cr
CHEM 1111,1111L	General Chemistry I, and Lab	5 cr
CHEM 1112,1112L	General Chemistry II, and Lab (Goal 5)	4 cr
MATH 1160	Applied Calculus (Goal 3)	3 cr
CHEM 3301,3303	Organic Chemistry I, and Lab	4 cr
CHEM 3302,3304	Organic Chemistry II, and Lab	4 cr
PHYS 1111	General Physics I	3 cr
ECON 2201	Principles of Macroeconomics	3 cr
	OR	
ECON 2202	Principles of Microeconomics	3 cr
Electives	(minimum)	2 cr

General Education Requirements:

ENGL 1101	English Composition	3 cr
ENGL 1102	Critical Reading and Writing (Goal 1)	3 cr
COMM 1101	Principles of Speech (Goal 2)	3 cr

Other General Education requirements for the Bachelor of Science degree 15 cr
3 of the 15 credits must be in Economics (ECON 2201 or ECON 2202)

We strongly recommend that prepharmacy students take PSYC 1101 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 2201	Introduction to Logic	3 cr
PHYS 1112	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 (Meridian, Pocatello, Coeur d'Alene) or at our site in Reno, Nevada.

The first professional year provides a foundation in the basic and pharmaceutical sciences that includes physiology, biochemistry, pharmacology and pharmaceuticals. Other courses provide a foundation for professional development that includes topics on ethics, law, drug information, research design, patient care, and the health care system.

Courses and clinical experiences in the second and third professional years build on accrued knowledge and skills. The curriculum centers on an integrated, organ-system approach to the therapeutic management of disease. Topics include cardiovascular, hepatic, hematology/oncology and endocrine. Additional courses provide insight into the human relation aspects of pharmacy, dosage form design, pharmacy management and physical assessment. A series of case studies courses, designed to enhance the student's knowledge base and problem-solving skills while focusing on the application of knowledge to specific patient cases, spans the first three years.

The last 42 weeks, or the fourth professional year, is devoted to full-time clinical experience in various pharmacy practice or, at the student's option, research environments. Students will complete six-week experiences in various areas of practice. Students will also have the option of selecting an elective in an area of interest.

Given the length of the final year of the 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 9911**	Introductory Practice Experience I	1 cr
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Fall Semester

BIOL 4449, 4449R/PHAR 9949, 9949R	Human Physiology I, and Recitation	4 cr
PHAR 9910	First Year Recitation	0 cr
PHAR 9921	Biological Basis of Drug Actions I	3 cr
PHAR 9924	Physicochemical Basis of Drug Actions	3 cr
PHAR 9931	Health Care Systems	3 cr
PHAR 9941, 9941L*	Introduction to Pharmacy Practice and Literature I, and Lab	4 cr
	TOTAL:	17 cr

Spring Semester

BIOL 4456, 4456R/PHAR 9956, 9956R	Human Physiology II, and Recitation	4 cr
PHAR 9905	Introduction to Clinical Problem Solving	2 cr
PPHAR 9910	First Year Recitation	0 cr
HAR 9912	Introductory Practice Experience II	1 cr
PHAR 9922	Biological Basis of Drug Actions II	4 cr
PHAR 9926	Basic Pharmaceuticals and Calculations	3 cr
PHAR 9942	Introduction to Pharmacy Practice and Literature II	3 cr
	TOTAL:	17 cr

* 45 hours lab with students rotating fall and spring.

** The requirement for PHAR 9910 is fulfilled for students who provide evidence of completion of on-line coursework as well as externship in a licensed or public health pharmacy which has been approved by the College of Pharmacy, the State Board of Pharmacy that has authority over the pharmacy and which was supervised by a licensed preceptor. Students must be enrolled in PHAR 9910 and have completed identified components of the course prior to obtaining extern requirements.

Second Professional Year (P-2) Curriculum

Fall Semester

PHAR 9906	Case Studies in Pharmacy I	2 cr
PHAR 9920	Second Year Recitation	0 cr
PHAR 9927	Dosage Form Design and Compounding w/Lab	4 cr
PHAR 9951	Pharmacotherapy Lab I	1 cr

PHAR 9961	Pharmacotherapy I	4 cr
PHAR 9962	Pharmacotherapy II	3 cr
PHAR 9963	Pharmacotherapy III	3 cr
	TOTAL:	17 cr

Spring Semester

PHAR 9907	Case Studies in Pharmacy II	2 cr
PHAR 9913	Introductory Practice Experience III	1 cr
PHAR 9920	Second Year Recitation	0 cr
PHAR 9945, 9945L	Pharmacy Practice Management, and Lab	4 cr
PHAR 9964	Pharmacotherapy IV	3 cr
PHAR 9965	Pharmacotherapy V	3 cr
	TOTAL:	13 cr

Third Professional Year (P-3) Curriculum

Fall Semester

PHAR 9908	Case Studies in Pharmacy III	2 cr
PHAR 9930	Third Year Recitation	0 cr
PHAR 9944, 9944L	Social and Behavioral Medicine/Pharmaceutical Care, and Lab	4 cr
PHAR 9966	Pharmacotherapy VI	3 cr
PHAR 9967	Pharmacotherapy VII	3 cr
PHAR 9968	Pharmacotherapy VIII	4 cr
	TOTAL:	16 cr

Spring Semester

PHAR 9914	Introductory Practice Experience IV	1 cr
PHAR 9930	Third Year Recitation	0 cr
PHAR 9948	Pharmacy Law	2 cr
PHAR 9952	Pharmacotherapy Lab IV	1 cr
PHAR 9969	Pharmacotherapy IX	5 cr
PHAR 9970	Pharmacotherapy X	4 cr
PHAR 9971	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 9980	Case Studies in Pharmacy Practice	7 cr
PHAR 9981	Advanced Pharmacy Practice Experiences (APPE)*	42 cr
PHAR 9982	Professional Student Seminar	1 cr
	TOTAL:	50 cr

Total for Doctor of Pharmacy Degree, including a minimum of 6 Elective credits: 225 cr

*The following experiences are taken as PHAR 9981 Advanced Pharmacy Practice Experiences (APPE):

Ambulatory Care	6 weeks
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.

Medicine - This experience is designed to integrate the knowledge from previous didactic courses in pharmacology, clinical chemistry and pathophysiology for application encountered in general medicine practice.

Mental Health - Application of pathophysiology and therapeutics to a general psychiatry practice.

Nuclear Pharmacy - Provides practical experience in the compounding and clinical use of radiopharmaceuticals.

Pediatrics - Practical experience in monitoring drug therapy for institutionalized and ambulatory pediatric and neonatal patients.

Pharmaceutical Care - Emphasizes the development, implementation and assessment of pharmaceutical care activities provided in the nontraditional student's work setting.

Research - Provides 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.

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 2201, ECON 2202, ACCT 2201 and ACCT 2202.
- During the third professional year in the Pharm.D. program and the summer preceding that year, the student should take MBA 6613, MBA 6614, MBA 6615 and MBA 6616. These courses will satisfy six hours of electives required for the Pharm.D. curriculum. In addition, the completion of MBA 6612 (Human Behavior in Organizations) will substitute for PPRA 9945 (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 6621, MBA 6622, MBA 6623, MBA 6624, MBA 6625, MBA 6626 and six hours of 6000-level electives in the College of Business.

Admission to Joint Pharm. D./M.B.A. Program

Interested student applicants may be admitted to the M.B.A. program at the end of the second professional year of the Pharm.D. curriculum. Awarding of the M.B.A. in this joint program requires successful completion of the Pharm.D. degree. Students must meet regular admission requirements for the M.B.A. program, except that they are required to have completed the equivalent of an undergraduate degree at the time of admission. Applicants must request the College of Pharmacy to certify to the Graduate School that they have completed 128 hours of course work and that those 128 hours are equivalent to an undergraduate degree.

Nontraditional Doctor of Pharmacy Program

The Nontraditional Doctor of Pharmacy (NonT) program at Idaho State University is designed for practitioners holding a Bachelor's degree in pharmacy and a valid U.S. or Canadian pharmacy license who desire the opportunity to earn the Pharm. D. degree without returning full-time to a college campus. The curriculum includes 37 credits of didactic course work that is taught using a combination of DVDs, interactive web-based case studies, detailed syllabi and textbooks. Each course has an assigned instructor who is available to students via telephone for questions or assistance. Upon completion of the didactic portion of the NonT program, students must perform 18 weeks of training in various clinical pharmacy disciplines.

Admission Requirements

Candidates for the NonT Pharm.D. program must complete an admissions procedure that includes submitting documented evidence of a strong academic record, clinical experience, and past achievements as a pharmacy practitioner. In determining admission status, the Admissions Committee will weigh all evidence each student provides, including their academic record and documented achievements as a pharmacy practitioner. Priority is given to residents of Idaho; however, pharmacists are encouraged to apply regardless of their state of residence. 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 College of Pharmacy application form and designated application fee.

- Completed University online application form and designated application fee.
- Official transcripts of all college course work must be submitted to both the University and the College of Pharmacy.
- Proof of current licensure in one of the states or territories of the United States or Canada.
- 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:

- 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.
- During the student's visit to campus, he or she will be asked to take a written examination designed as a tool to assist both the student and the faculty in evaluating the student's baseline knowledge of clinical pharmacy. The examination is not an admission test in that there is not a minimum score that must be achieved for admission to the program.

Dates to Begin the Program

The NonT program does not follow the usual academic calendar of the University. Students will be enrolled and initiate courses once official notification of admission has been received.

Requirements for Completion

The courses students will take are competency-based. This means the student will not receive a passing grade in the course until s/he has achieved the minimum level of knowledge and skills required for the course.

To remain accredited by the Accreditation Council for Pharmacy Education (ACPE), the didactic portion of the program must be completed within 3.5 years of the admission date. This admission date is given to each student upon beginning the program.

Before beginning the experiential portion of the program, a second on-campus visit is required during which the student must complete a comprehensive examination of the didactic curriculum. A physical assessment practicum will also be offered at this time. Following successful completion of these evaluations, students will complete the practical experience requirements.

Over 300 sites have been established throughout the U.S. Additional sites may be approved if they meet the learning objectives specified by the program. Every effort will be made to place each student in an appropriate site convenient to their residence; however, the right must be retained to assign a student to a site away from his/her residence if local accommodations are not available or will not meet the requirements specified by the program.

Curriculum

The minimum didactic courses students will be required to complete are as follows:

PDNT 9905	Introduction to Clinical Problem Solving	1 cr
PDNT 9918	Drug Literature Evaluation and Statistics	2 cr
PDNT 9938	Drug and Medical Informatics	1 cr
PDNT 9961	Pharmacotherapy I	3 cr
PDNT 9962	Pharmacotherapy II	3 cr
PDNT 9963	Pharmacotherapy III	2 cr
PDNT 9964	Pharmacotherapy IV	3 cr
PDNT 9965	Pharmacotherapy V	4 cr
PDNT 9966	Pharmacotherapy VI	3 cr
PDNT 9967	Pharmacotherapy VII	2 cr
PDNT 9968	Pharmacotherapy VIII	3 cr
PDNT 9969	Pharmacotherapy IX	4 cr
PDNT 9970	Pharmacotherapy X	4 cr
PDNT 9971	Pharmacotherapy XI (Capstone w recitation)	2 cr
		TOTAL: 37 cr

In addition to these didactic courses, students will be required to complete 18 weeks of advanced practical experiences (PHAR 9981). These include:

Ambulatory Care	6 weeks
Medicine	6 weeks
Pharmaceutical Care *	6 weeks
OR	
Elective	6 weeks
TOTAL: 18 weeks	

* The student may choose one 6-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 portfolio of patient write-ups may be submitted. If approved, this portfolio may replace one 6-week APPE.

Continuing Education

The Idaho State University College of Pharmacy is approved by the Accreditation Council for Pharmacy Education (ACPE) as a provider of Continuing Pharmacy Education. Students will be awarded ACPE-accredited continuing education credits in addition to academic credits. Five (5) hours of continuing education (CE) will be granted for successful completion of each credit in the didactic portion of the program. In addition, 20 hours of CE will be conferred for the Medicine and Ambulatory Care practice experiences.

Sequence of Study and Time Allowed to Complete a Course

The first three courses may be taken in any order. A suggested sequence for those who have not been in school recently is: PDNT 9938, PDNT 9905 and then PDNT 9918. The first three courses must be completed before the Pharmacotherapy modules are started. These modules must be taken in the sequence in which they are listed.

The NonT program does not function on a traditional semester calendar. Students must register for and complete didactic courses within the 3.5 years allotted.

It is recommended that students complete one credit per month to keep within the 3.5 year deadline; however, students are allowed to advance more quickly. Students will not be allowed to remain in the didactic portion of the program longer than 3.5 years.

The Doctor of Pharmacy degree is conferred three times a year—May, August, and December. Students completing all program requirements before these dates may be supplied with an official letter stating that they have completed the program.

Format of Didactic Instruction

The didactic course work is taught utilizing a combination of DVDs, interactive web-based case studies, detailed syllabi and textbooks suitable for the nonradi-

tional 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 non-traditional Pharm.D. curriculum provides the mechanism whereby students are given practical education in several important areas of clinical pharmacy practice. It is essential that this education be provided in facilities where high standards of pharmaceutical care and instruction are available. Therefore, preceptors and sites must meet certain qualifications.

Qualifications of Preceptors: Preceptors are expected to be clinical pharmacists actively engaged in the delivery of high quality pharmaceutical care. These individuals typically will have completed the Pharm. D. degree and may have residency and/or fellowship training. These individuals will spend the majority of their time providing pharmaceutical care in their facility but will be able to commit sufficient time to the education of the student. Preceptors may be eligible to receive affiliate faculty appointment at Idaho State University College of Pharmacy.

Qualifications of Facilities: Facilities will be licensed and accredited by appropriate agencies which govern pharmacy practice and/or health care delivery in respective geopolitical regions. Clinical services will be integrated into the routine practice of pharmacy; mechanisms to assure the quality of these services will be in place. Commitment of the facility to the Idaho State University educational program may be documented with an "Affiliation Agreement" with the University.

Nontraditional students who desire to complete clinical experiences at facilities currently affiliated with the Idaho State

University College of Pharmacy traditional Pharm.D. program will be incorporated into the placement process employed for traditional students.

Student Responsibilities

Students may request to complete clinical experiences at sites in close proximity to their home but which are not currently affiliated with the Idaho State University College of Pharmacy. Practice sites requested by students may require that a representative of the College visit the facility to validate the acceptability of the site for clinical instruction before the site can be approved.

Students who request non-affiliated sites must follow the steps outlined below:

1. Notify the Director or Assistant Director of the Nontraditional Pharm.D. Program of the desire to complete clinical experiences at alternative sites. The Director or Assistant Director will give the student permission to make initial contact with the facility(ies) and preceptor(s). This step ensures that the College is aware that its students are making initial educational contacts on its behalf. If a student wants to complete training at a facility(ies) or with a preceptor(s) unacceptable to the College, the Director or Assistant Director will deny permission.
2. Contact the facility(ies) and preceptor(s) to determine if they have interest in having the student complete training at their site in the desired time frame.
3. Report to the Director or Assistant Director the results of contact(s) with proposed facility(ies) and preceptor(s).

College of Pharmacy Responsibilities

Assuming the student has successfully identified facilities and preceptors which are tentatively acceptable to the College, the following steps will occur:

1. The Director or Assistant Director will contact the preceptor(s) to confirm the interest in affiliation with the College. This contact will document the ability of preceptor(s) and facility(ies) to fulfill the educational requirements. Preliminary discussions regarding affiliate faculty appointment and payment for supervision may also occur.

2. Provided mutual interest in an academic affiliation is sustained, the Director or Assistant Director may schedule a visit to the facility(ies) and preceptor(s) to confirm the acceptability of the site(s) for clinical instruction.
3. Acceptable consensus will be reached between the facility(ies) and the University regarding "Affiliation Agreements," payment of facilities or preceptors, and affiliate faculty appointments.
4. The Director or Assistant Director will communicate with preceptors, receive grades, receive student evaluations of preceptors, and visit sites as needed.

Program Director/Advisor

Students will be assigned an advisor upon admission to the program. The NonT program will be responsible for course and practical training registration, delivery of examination materials to the proctor and any other administrative details associated with the program.

Nontraditional Application Materials

Application materials and other information may be obtained by mail, telephone or the internet:

Nontraditional Doctor of
Pharmacy Program
College of Pharmacy
Idaho State University
921 S 8th Ave Stop 8356
Pocatello ID 83209-8356
(208) 282-3918
ntpd@pharmacy.isu.edu
<http://pharmacy.isu.edu/live/prospective/nont.html>

Minor in Pharmaceutical Sciences

The minor in Pharmaceutical science helps students to prepare for careers in biomedical research and/or pharmaceutical industry.

Required Courses:

PSCI 2205	Drugs in Society	2 cr
PSCI 3301	Introduction to Pharmacology	3 cr
PSCI 3353	Introduction to Methods in Pharmaceutical Sciences	2 cr
PSCI 4438	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.

Elective courses:

PSCI 3308	Drug Discovery	3 cr
PSCI 3368	Introduction to Toxicology	3 cr
PSCI 4401	Drug Abuse	2 cr
PSCI 4402	Immunopharmacology	2 cr
PSCI 4403	Infectious Diseases and Natural Products	3 cr
PSCI 4404	Pulmonary and Cardiac Pharmacology	3 cr
PSCI 4405	Behavioral Pharmacology	2 cr
PSCI 4406	Introduction to Endocrinology	2 cr
PSCI 4407	Pharmacogenomics	2 cr
PSCI 4408	Medicinal Chemistry	3 cr
PSCI 4414	Women's Health Issues	3 cr
PSCI 4430	Psychopharmacology	3 cr
PSCI 4431	Cancer Biology	3 cr
PSCI 4432	Anticancer Drugs	3 cr
PSCI 4433	Physical Pharmaceutics	3 cr
PSCI 4434	Pharmacokinetics	3 cr
PSCI 4436	Special Topics in Oncology	1 cr
PSCI 4441	Diabetes for Health Sciences	2 cr
PSCI 4462	Neuropharmacology	3 cr
PSCI 4482	Special Topics in Pharmaceutical Science	1-3 cr

Bachelor of Science in Biochemistry

Three Departments—Biological Sciences, Chemistry, and Biomedical and Pharmaceutical Sciences—jointly offer the B.S. degree in biochemistry. The curriculum is designed to prepare the student for graduate work in biochemistry and related fields, as well as for admission to medical, dental, or other health professional schools. The graduate also is prepared to go directly into research or industrial positions which require preparation only at the B.S. level.

The purpose of the B.S. in Biochemistry is to serve students who seek to develop a strong background in biochemistry and the supporting sciences of biology, chemistry and physics. Majors also gain experience in the broad areas of biochemistry, molecular biology, biotechnology, and medical and/or ecological applications of each. Majors gain experience that will prepare them to participate in research development, planning and implementation and to be competent to carry out standard biochemical and molecular biology techniques in the laboratory. The B.S. in Biochemistry prepares students to be competitive for positions in research, graduate schools, health profession schools, and in the biotechnology industry.

Core Requirements*

Students pursuing a Bachelor of Science degree must satisfy 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 1101, 1101L	Biology I, and Lab	4 cr
BIOL 1102, 1102L	Biology II, and Lab	4 cr
BIOL 2235, 2235L	General Microbiology	4 cr
BIOL 3358	Genetics	3 cr
BIOL 4437/CHEM 4438	Experimental Biochemistry	1 cr
BIOL 4444, 4444L	Cell and Molecular Biology, and Lab	5 cr
BIOL/CHEM 4445	Biochemistry I	3 cr
BIOL/CHEM 4447	Biochemistry II	3 cr
BIOL/CHEM 4448	Advanced Experimental Biochemistry	2 cr
BIOL/CHEM 4498	Seminar in Biochemistry	1 cr
CHEM 1111, 1111L	General Chemistry I, and Lab	5 cr
CHEM 1112, 1112L	General Chemistry II, and Lab	4 cr
CHEM 2232, 2234	Quantitative Analysis, and Lab	4 cr
CHEM 3301, 3303	Organic Chemistry I, and Lab	4 cr
CHEM 3302, 3304	Organic Chemistry II, and Lab	4 cr
CHEM 3341**	Topics in Physical Chemistry I	3 cr
CHEM 3342**	Topics in Physical Chemistry II	3 cr
MATH 1170	Calculus I	4 cr
MATH 1175	Calculus II	4 cr
PHYS 1111, 1113***	General Physics I, and Lab	4 cr
PHYS 1112, 1114***	General Physics II, and Lab	4 cr
	Subtotal:	73 cr
	General Education Requirements	24 cr
	TOTAL:	97 cr

*Students must pass core courses with a grade of C- or better.

**May elect to take CHEM 3351 and 3352 instead of CHEM 3341 and 3342.

***PHYS 2211, 2212, 2213, 2214 may be taken to fulfill the Physics requirement in the core curriculum.

Track 1: Biological Chemistry (9 cr)

CHEM 2211, 2213	Inorganic Chemistry, and Lab	4 cr
CHEM 3331, 3334	Instrumental Analysis, and Lab	4 cr
CHEM 4492	Seminar	1 cr

Track 2: Biochemistry and Molecular Biology (8 cr)

BIOL 3303, 3303L; 4404, 4404L; or 4433, 4433L	Animal, or Plant, or Microbial Physiology, and Lab	4 cr
BIOL 4461	Advanced Genetics	3 cr
BIOL 4492	Seminar	1 cr

Track 3: Physiological Biochemistry (8 cr)

BIOL 3302, 3302L	Anatomy and Physiology, and Lab	4 cr
PSCI 3301	Introduction to Pharmacology	3 cr
BIOL 4492	Seminar	1 cr

Electives

Students must take a minimum of 12 credits, with at least 3 credits in Biological Sciences (BIOL), 3 credits in Chemistry (CHEM), and 3 credits in Biomedical and Pharmaceutical Sciences (PSCI). Advanced or experimental courses are acceptable. These courses satisfy the electives requirement only if they are not required for a specific Biochemistry track.

BIOL 3301, 3301L	Anatomy and Physiology, and Lab	4 cr
BIOL 3302, 3302L	Anatomy and Physiology and Lab	4 cr
BIOL 3303, 3303L	Principles of Animal Physiology, and Lab	4 cr
BIOL 3324, 3324L	Developmental Biology and Lab	4 cr
BIOL 4404, 4404L	Plant Physiology, and Lab	4 cr
BIOL 4441K	Molecular Biology Laboratory Methods	3 cr
BIOL 4415, 4415L	Human Neurobiology, and Lab	5 cr
BIOL 4417	Organic Evolution	3 cr
BIOL 4433, 4433L	Microbial Physiology, and Lab	4 cr
BIOL 4434, 4434L	Microbial Diversity, and Lab	4 cr
BIOL 4443	Endocrinology	3 cr
BIOL 4449, 4449R / PHAR 949, 949R	Human Physiology, and Recitation	4 cr
BIOL 4451, 4451L	Immunology, and Lab	4 cr
BIOL 4456, 4456R / PHAR 9956, 9956R	Human Physiology II, and Recitation	4 cr
BIOL 4461	Advanced Genetics	3 cr
BIOL 4463, 4463L	Human Pathophysiology, and Lab	4 cr
BIOL 4473, 4473L	Applied and Environmental Microbiology, and Lab	4 cr
BIOL 4475	General Virology	3 cr
BIOL 4477 or 4478	Bacterial or Animal Virology Laboratory	1 cr
BIOL 4481 and/or 4482	Independent Problems (max 2 credits)	2 cr
BIOL 4488	Advanced Radiobiology	3 cr
CHEM 2211, 2213	Inorganic Chemistry, and Lab	4 cr
CHEM 3311 and/or 3312	Introduction to Research (max) 2 cr	2 cr
CHEM 3331, 3334	Instrumental Analysis, and Lab	4 cr
CHEM 3365, 3366	Synthetic Methods, and Lab	4 cr
CHEM 4407*	Inorganic Chemistry II	2 cr
CHEM 4433, 4437	Environmental Chemistry, and Lab	3 cr
CHEM 4453**	Modern Experimental Physical Chemistry**	3 cr
CHEM 4481 and/or 4482	Independent Problems (max)	2 cr
MATH 2240	Linear Algebra	3 cr
MATH 2275	Calculus III	4 cr
MATH 3360	Differential Equations	3 cr
PSCI 2205	Drugs in Society	2 cr
PSCI 3301	Introduction to Pharmacology	3 cr
PSCI 3308	Drug Discovery	3 cr
PSCI 3353	Introduction to Methods in Pharmaceutical Sciences	2 cr
PSCI 3368	Introduction to Toxicology	3 cr
PSCI 4402	Immunopharmacology	2 cr
PSCI 4403	Infectious Diseases and Natural Products	3 cr
PSCI 4407	Pharmacogenomics	2 cr
PSCI 4408	Medicinal Chemistry	3 cr
PSCI 4431	Cancer Biology	3 cr
PSCI 4434	Pharmacokinetics	3 cr
PSCI 4440	Fundamentals of Nanoscience	3 cr
	*Prerequisites include CHEM 2211, 2211L, 3351, and 3352.	
	**Prerequisites include CHEM 3334, 3351, and 3352.	

Pharmacy Courses

Biomedical and Pharmaceutical Science Courses

PSCI 2205 Drugs in Society 2 credits. Survey of the response of people to drugs and chemicals. This course is for non-pharmacy majors. F, S

PSCI 3301 Introduction to Pharmacology 3 credits. Overview of basic pharmacological principles and drug classes emphasizing organ systems and mechanisms of action. PREREQ: BIOL 1102, CHEM 1112, and CHEM 1112L. F

PSCI3308 Drug Discovery 3 credits. Overview of the new drug discovery process including drug screening and the development of targeted therapies. PREREQ: PSCI 3301. F

PSCI 3314 Basic and Applied Pharmacology for Dental Hygiene 2 credits. Basic pharmacology and therapeutic uses of selected drug groups. PREREQ: BIOL 3301 and BIOL 3302; Dental Hygiene major. S

PSCI 3315 Pharmacology for Nursing 4 credits. The pharmacologic actions and therapeutic implications of the major classes of drugs. PREREQ: BIOL 3301 and BIOL 3302; admitted to Nursing, Paramedic, or Respiratory Therapy program. S

PSCI 3318 Basic and Applied Pharmacology for Physical Therapists 2 credits. Introduction to the basic concepts of pharmacology. Discussion of pharmacologic therapy of problems affecting the musculoskeletal and connective tissues, including pain management. PREREQ: Admitted to Physical Therapy program. S

PSCI 3353 Introduction to Methods in Pharmaceutical Sciences 2 credits. Review of *in vitro* and *in vivo* methodology for the study of various aspects of pharmaceutical sciences. PREREQ: BIOL 1102, CHEM 1112, and CHEM 1112L. S

PSCI 3368 Introduction to Toxicology 3 credits. Review of environmental and clinical poisons with emphasis on mechanisms of toxicity, causes, detection and treatment. PREREQ: PSCI 3301. F

PSCI 4401 Drug Abuse 2 credits. A discussion of pharmacological and societal aspects of drugs of abuse. PREREQ: PSCI 3301. S

PSCI 4402 Immunopharmacology 2 credits. Examination of drugs affecting the immune system. PREREQ: PSCI 3301. S

PSCI 4403 Infectious Diseases and Natural Products 3 credits. Review of antimicrobial drugs including antibiotics, antifungal and antiviral drugs. Review of pharmacology and medicinal chemistry of drugs derived from environmental sources. PREREQ: PSCI 3301. S

PSCI 4404 Pulmonary and Cardiac Pharmacology 3 credits. Review of the pulmonary and cardiovascular systems including major drug classes affecting these systems. PREREQ: PSCI 3301. F

PSCI 4405 Behavioral Pharmacology 2 credits. Review of drugs effecting behavioral processes including emotion, learning, memory, and cognition. PREREQ: PSCI 3301. Permission of instructor. S

PSCI 4406 Introduction to Endocrinology 2 credits. Review of the endocrine systems and drugs used for endocrine based disorders. PREREQ: PSCI 3301. S

PSCI 4407 Pharmacogenomics 2 credits. Review of contemporary genetic approaches in

the understanding of disease and the development of pharmacological agents to treat disease. PREREQ: PSCI 3301. S

PSCI 4408 Medicinal Chemistry 3 credits. A study of the general chemistry, chemical properties and relationships between chemical structures and pharmacological activities of organic and inorganic medicinal agents. PREREQ: PSCI 3301. F

PSCI 4414 Women's Health Issues 3 credits. This course will cover medical, pharmacological and societal aspects of women's health issues, including risk for various diseases and effectiveness of treatments using a multidisciplinary approach involving several health care practitioner faculty. Issues particular to women will be emphasized. PREREQ: Permission of instructor. F

PSCI 4430 Psychopharmacology 3 credits. This course will cover the mechanisms of action of psychoactive drugs, including drugs used in the treatment of psychopathological disorders and drugs of abuse. PREREQ: Permission of instructor. F

PSCI 4431 Cancer Biology 3 credits. Study of growth control, carcinogenesis, receptors, oncogenes, signal transduction pathways in cancer, metastasis, angiogenesis, invasion and tumor markers. PREREQ: Permission of instructor. F

PSCI 4432 Anti-cancer Drugs 3 credits. Introduction to conventional chemotherapeutic drugs, novel chemotherapeutic drugs in clinical trials and cancer drug discovery. PREREQ: Permission of instructor. F

PSCI 4433 Physical Pharmaceutics 3 credits. Illustrates the basic concepts of physical pharmaceutics, including physicochemical and biopharmaceutical principles applicable to formulation design, drug disposition and calculations. PREREQ: Permission of instructor. S

PSCI 4434 Pharmacokinetics 3 credits. Illustrates the principles of pharmacokinetics and dosing regimen design. PREREQ: Permission of instructor. F

PSCI 4435 Drug Delivery Systems 3 credits. Illustrates principles, processes, and techniques applied to drug delivery systems, preparation, use and assessment of pharmaceutical dosage forms and emphasizes formulation design, dose regimens, and specific compounding techniques. PREREQ: Permission of instructor. S

PSCI 4436 Special Topics in Oncology 1 credit. Study of current topics in cancer research and novel approaches to understand and treat cancer. PREREQ: Permission of instructor. S

PSCI 4437 Nuclear Pharmacy 2 credits. Basic principles of radiation physics, preparation of radiopharmaceuticals, operator safety, quality control, laboratory design, radiation monitoring equipment, clinical aspects, therapeutic and diagnostic applications of radiopharmaceuticals and diagnostic agents in pharmacy practice. PREREQ: Permission of instructor. F

PSCI 4438 Pharmaceutical Science Research 2 credits. Hands on research experience under the direction of pharmaceutical science faculty

including the completion of experiments and analyses of data. PREREQ: Permission of instructor. F, S

PSCI 4439 Drug Delivery in the 21st Century 2 credits. State-of-the-art information on the science and technology of novel drug delivery systems, controlled release formulations and pharmaceutical proteins, vaccines and anti-sense drugs. PREREQ: Permission of instructor. F

PSCI 4440 Fundamentals of Nanoscience 3 credits. Introduction to the fundamental properties of nanomaterials. Emphasis on the application of nanomaterials in biological systems and their impact on society, and understanding nanomaterials for their future in medicine. PREREQ: Permission of instructor. F

PSCI 4441 Diabetes for Health Sciences 2 credits. Discussion of diabetes: types, development, monitoring and patient related issues. Topics include basic science and patient applications. Discussions based on student interest and background. PREREQ: Permission of instructor. S

PSCI 4455 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 4457 Clinical Chemistry 2 credits. The influence of disease states on the results of laboratory diagnostic procedures; the effects of drug therapy on diagnostic tests. PREREQ: Second year professional status in Pharm. D. program. F

PSCI 4462 Neuropharmacology 3 credits. The molecular basis of drug action in the central nervous system including nerve excitation, molecular properties of ion channels, neuropharmacological methods, pharmacology of ethanol and the mechanisms in tolerance and physical dependence. PREREQ: PSCI 3301. S

PSCI 4480 Health Issues of Drug Abuse 2 credits. In-depth discussion of pharmacological and societal aspects of drug abuse, including the risk for harm from both legal and illegal substances. Emphasis on treatment options. D

PSCI 4482 Special Topics in Pharmaceutical Sciences 1-3 credits. An examination of selected topics in the pharmaceutical sciences. PREREQ: Permission of instructor. F, S

PSCI 5529 Clinical Pharmacokinetics 3 credits. The application of pharmacokinetic principles to the rational design of individualized drug dosage regimens. PREREQ: PSCI 4425. F

PSCI 5537 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 5538 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. F, S

PSCI 5569 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 5569 and BIOL 4463. PREREQ: B.S. in Pharmacy. F, S

PSCI 5592 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 3335 Smoking Cessation 1 credit. Knowledge and skills necessary to provide comprehensive tobacco cessation counseling to patients who use tobacco. D

PPRA 3341 Topics in Drug Utilization Review 1-2 credits. Provides additional clinical experience, knowledge and skills necessary to provide population-based therapeutic monitoring and appropriate drug use. PREREQ: Permission of instructor. F, S

PPRA 3345 Pharmacy and Therapeutics Formulary 1 credit. Examination of selected drug classes with the goal of choosing individual agents for mock formulary inclusion. Emphasis on therapeutic variances, available dosage forms and pharmacoeconomic considerations, among other parameters, will drive the selection of individual agent(s) within the selected drug class. D

PPRA 4425 Introduction to Traditional Chinese Medicine 2 credits. Survey of philosophical basis of traditional Chinese medicine, diagnostic techniques, and modalities of treatment. PREREQ: Permission of instructor. S

PPRA 4428 Diet Alternatives and Nutrition 2 credits. Overview of macro- and micronutrients, diet aids and supplements, and current dieting trends and their impact on the body and medications. Emphasis on nutrition and exercise in the overall health of a patient. Evidence-based evaluation of current diet trends. D

PPRA 4440 Pharmacoeconomics 2 credits. Introduction to the principles and methods for the economic evaluation of medicines such as cost-effectiveness and cost-utility analysis as well as patient-centered assessments of health-related quality of life and patient preferences or utilities. D

PPRA 4459 Externship in Pharmacy Practice 1 credit. 200 hours of practical experience in a pharmacy practice environment. Graded S/U. S

PPRA 4491 Topical Seminar in Pharmacy Practice 1-4 credits. Examination of selected topics in Pharmacy Practice and Pharmacy Administration. May be repeated. PREREQ: Permission of instructor. D

PPRA 5507 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 5513 Marketing Management of the Community Pharmacy 2 credits. Principles of

marketing management as applied to community pharmacy practice. S

PPRA 5514 Institutional Pharmacy Practice 2 credits. The practice of institutional pharmacy with special emphasis on the practice of hospital pharmacy. PREREQ: PHAR 9945 and PHAR 9945L. S

PPRA 5515 Financial Management of the Community Pharmacy 2 credits. Principles of financial management as applied to community pharmacy practice. PREREQ: PHAR 9945 and PHAR 9945L. S

PPRA 5518 Clinical Research Design and Analysis 4 credits. The fundamentals of experimental design, implementation and data analysis pertinent to pharmaceutical clinical investigations. F, S

PPRA 5530 Geriatric Pharmacy I 3 credits. Principles of effective pharmaceutical care of the elderly patient. PREREQ: Third professional year status. D

PPRA 5531 Geriatric Pharmacy II 3 credits. This course is a continuation of PPRA 5530, and includes advanced study of the principles of effective pharmaceutical care of the elderly patient. PREREQ: Third professional year status. S

PPRA 5534 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 5535 Pathophysiology and Therapeutics II 4 credits. Provide knowledge of therapeutics and prepare for learning in a clinical setting. PREREQ: PPRA 5534. F, S

PPRA 5538 Drug Information and Literature Analysis 2 credits. Advanced course in retrieving, analyzing, and evaluating medication-related information from the literature. PREREQ: PPRA 5518. F

PPRA 5539 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 5550 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 5588 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 9901 Early Practice Experience I 1 credit. A self-directed, competency-based 200 hours of experiential training in an approved pharmacy practice setting to be completed prior to the start of the second professional year. Graded S/U. PREREQ: First professional year. S

PHAR 9902 Early Practice Experience II 1 credit. Forty hours of competency-based

experiential training in an approved pharmacy practice setting or voluntary service activity to be completed prior to the start of the third professional year. Graded S/U. PREREQ: PHAR 9901. S

PHAR 9903 Early Practice Experience III 1 credit. Forty hours of competency-based experiential training in an approved pharmacy practice setting or voluntary service activity to be completed prior to the start of the fourth professional year. Graded S/U. PREREQ: PHAR 9902. S

PHAR 9905 Introduction to Clinical Problem Solving 2 credits. An introduction to the deductive, problem-based clinical reasoning process for identifying, preventing, and resolving drug-related problems. PREREQ: First professional year. S

PHAR 9906 Case Studies in Pharmacy I 2 credits. Application of principles in pharmaceutical sciences, pathophysiology and therapeutics to drug therapy issues. PREREQ: Second professional year. F

PHAR 9907 Case Studies in Pharmacy II 2 credits. Application of principles in pharmaceutical sciences, pathophysiology and therapeutics to drug therapy issues. PREREQ: PHAR 9906. S

PHAR 9908 Case Studies in Pharmacy III 2 credits. Application of principles in pharmaceutical sciences, pathophysiology and therapeutics to drug therapy issues. PREREQ: PHAR 9907. F

PHAR 9910 First Year Recitation 0 credit. Scheduled time to attend professional seminars, course reviews and exams. May be repeated. COREQ: First professional year. D

PHAR 9911 Introductory 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 9912 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 9911. COREQ: first professional year. S

PHAR 9913 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 9912. S

PHAR 9914 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 9913. S

PHAR 9920 Second Year Recitation 0 credit. Scheduled time to attend professional seminars, course reviews and exams. May be repeated. COREQ: Second Professional Year. D

PHAR 9921 Biological Basis of Drug Actions I 3 credits. Basic concepts in pharmacology. PREREQ: First professional year. F

PHAR 9921R Biological Basis of Drug Actions I Recitation 0 credits. F

PHAR 9922 Biological Basis of Drug Actions II 4 credits. Basic concepts in Pharmacology. PREREQ: First professional year. S

PHAR 9922R Biological Basis of Drug Actions II Recitation 0 credit. S

PHAR 9924 Physiochemical Basis of Drug Action 3 credits. Concepts of physical and chemical properties of drugs and how these properties affect absorption, distribution, metabolism, excretion, and pharmacological actions. PREREQ: First professional year. COREQ: BIOL 4432, BIOL 4449, and PHAR 9924R. F

PHAR 9924R Physiochemical Basis of Drug Action Recitation 0 credit. F

PHAR 9926 Basic Pharmaceutics and Calculations 3 credits. Fundamentals of physical pharmacy, mathematics associated with drug dispensing and pharmacokinetic principles applicable to the design of rational dosage regimens. PREREQ: PHAR 9924. S

PHAR 9927 Dosage Form Design and Compounding with Lab 4 credits. Principles, processes and techniques applied to design of therapeutic systems, including preparation, use and assessment of pharmaceutical dosage forms. Includes three hours of laboratory each week. PREREQ: PHAR 9926. F

PHAR 9927L Dosage Form Design and Compounding Lab 0 credits. Principles, processes and techniques applied to design of therapeutic systems, including preparation, use and assessment of pharmaceutical dosage forms. COREQ: PHAR 9927. S

PHAR 9930 Third Year Recitation 0 credit. Scheduled time to attend professional seminars, course reviews and exams. May be repeated. COREQ: Third Professional Year. D

PHAR 9931 Health Care Systems 3 credits. Introduction to the health care system, pharmacoeconomics, public health policy and their impact on the practice of pharmacy. PREREQ: First professional year. F, D

PHAR 9941 Introduction to Pharmacy Practice and Literature I with Lab 4 credits. Introduction and socialization to the pharmacy profession. A general overview of the health care system, the role of pharmacy in health care, pharmacy law, experimental design, analysis, and career pathways within the profession. PREREQ: First professional year. COREQ: PHAR 9941L. F

PHAR 9941L Pharmacy Practice and Literature I Lab 0 credit. Experiences in the retrieval, interpretation and analysis of literature and other sources of medical information. Design and development of research projects suitable for publication. COREQ: PHAR 9941. F

PHAR 9942 Introduction to Pharmacy Practice and Literature II 3 credits. Introduction and socialization to the profession of pharmacy.

A general overview of the health care system, the role of pharmacy in health care, pharmacy law, experimental design, analysis and career pathways within the profession. PREREQ: PHAR 9941. S

PHAR 9944 Social and Behavioral Medicine and Pharmaceutical Care 4 credits. Emphasizes cultural sensitivity, empathy, communication skills; and the social, behavioral and ethical influences on pharmacotherapy. PREREQ: Third professional year. COREQ: PHAR 9944L. F, D

PHAR 9944L Social and Behavioral Medicine and Pharmaceutical Care Lab 0 credits. Emphasizes cultural sensitivity, empathy, communication skills; and the social, behavioral and ethical influences on pharmacotherapy. COREQ: PHAR 9944. F, D

PHAR 9945 Pharmacy Practice Management 4 credits. Principles of financial and human resource management as applied to pharmacy practice. PREREQ: Second professional year. COREQ: PHAR 9945L. S, D

PHAR 9945L Pharmacy Practice Management Lab 0 credits. Application and experiences in financial and human resource management as applied to pharmacy practice. COREQ: PHAR 9945. S, D

PHAR 9948 Pharmacy Law 2 credits. The study of federal and state statutes, regulations and court decisions which control the practice of pharmacy and drug distribution; and an introduction to civil liability in pharmacy practice. PREREQ: Third professional year. S

PHAR 9949 Human Physiology I 4 credits. First of a two semester sequence. Physiology of the nervous, muscular, and circulatory systems. Cross-listed as BIOL 4449. PREREQ: BIOL 1101, CHEM 1111, CHEM 1111L, CHEM 1112, and CHEM 1112L. F

PHAR 9949R Human Physiology I Recitation 0 credit. F

PHAR 9951 Pharmacotherapy Lab I 1 credit. Integration of skills and knowledge necessary for providing pharmaceutical care. Emphasizes patient assessment and therapeutic monitoring and management. PREREQ: Second professional year. Graded S/U. D

PHAR 9952 Pharmacotherapy Lab IV 1 credit. Integration of skills and knowledge necessary for providing pharmaceutical care. Emphasizes patient assessment and therapeutic monitoring and management. PREREQ: Third professional year. Graded S/U. D

PHAR 9956 Human Physiology II 4 credits. Physiology of the respiratory, renal, gastrointestinal, and endocrine systems. Includes studies of acid-base balance. Cross-listed as BIOL 4456. PREREQ: BIOL 4449 or equivalent. S

PHAR 9956R Human Physiology II Recitation 0 credit. S

PHAR 9961 Pharmacotherapy I 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 9962 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 9963 Pharmacotherapy III 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 9964 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 9965 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 9966 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: Third professional year. D

PHAR 9967 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

PHAR 9968 Pharmacotherapy VIII 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: Third professional year. D

PHAR 9969 Pharmacotherapy IX 5 credits. An organ-system approach to the therapeutic management of selected disease states with an emphasis on appropriate drug selection, therapeutic drug monitoring, and patient counseling. PREREQ: Third professional year. D

PHAR 9970 Pharmacotherapy X 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: Third professional year. D

PHAR 9971 Capstone Pharmacotherapeutics 3 credits. Emphasis on the important therapeutic issues surrounding common disease states including small group discussions, journal clubs, reviews of practice guidelines and interactive teaching methods. PREREQ: Third professional year. D

PHAR 9971R Capstone Recitation 0 credit. Recitation for PHAR 9971 Capstone Pharmacotherapeutics. D

PHAR 9980 Case Studies in Pharmacy Practice 1 credit. This series of one credit courses will require students to present selected cases for discussion to the preceptor or other students. May be repeated up to 7 times. Graded S/U. PREREQ: Fourth professional year status. F, S, Su

PHAR 9981 Advanced Pharmacy Practice Experience 4-6 credits. Students are assigned to pharmacy practice sites including community, hospital, and clinical settings for experimental training. May be repeated up to 7 times. PREREQ: Fourth professional year status. F, S, Su

PHAR 9982 Professional Student Seminar 1 credit. Development of a relevant therapeutic topic including the review, analysis, and oral presentation of all appropriate medical and scientific literature. Graded S/U. PREREQ: Fourth professional year status. F, S, Su

Nontraditional Doctor of Pharmacy Courses

PDNT 9905 Introduction to Clinical Problem Solving 1 credit. An integrated case study format emphasizing the development of quality assurance concepts, physical assessment skills, and clinical problem-solving abilities related to the diagnosis, resolution and prevention of drug-related problems. PREREQ: Enrollment in the Nontraditional Pharm.D. program. F, S, Su

PDNT 9918 Drug Literature Evaluation and Statistics 2 credits. The fundamentals of experimental design, implementation and data analysis pertinent to pharmaceutical clinical investigations. PREREQ: Enrollment in the Nontraditional Pharm.D. program. F, S, Su

PDNT 9938 Drug and Medical Infomatics 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 5518. F, S, Su

PDNT 9961 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 9962 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 9963 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 9964 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 9965 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 9966 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 9967 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 9968 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 9969 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 9970 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 9971 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

The College of Technology is the largest post-secondary technical institution in Idaho. The College provides high quality professional-technical programs that are designed to meet the employment and economic development needs of business and industry.

Students are offered a distinctive opportunity to acquire a professional-technical education in a university setting and may participate in a wide range of campus activities in addition to completing occupationally-focused programs of study. Programs of study include technical certificates; associate, baccalaureate, and graduate degree programs; adult basic education; and workforce training and development.

Students can develop leadership skills by participating in organizations such as the Associated Students of Idaho State University (ASISU), Delta Epsilon Chi, the Association of Information Technology Professionals (AITP), the Business Professionals Association (BPA), and SkillsUSA.

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 Steps

1. Complete an application for admission at apply.isu.edu and pay fees online. Be sure to click on the Professional Technical Application and select your program choice. If you are applying for the Associate Degree Registered Nurse program, the Respiratory Therapy program or any bachelor's degree offered through the College of Technology, go instead to the Undergraduate Application.

2. Submit an official copy of your high school transcript or GED scores (not required if you have submitted proof of 14 or more academic credits from an accredited institution of higher education).
3. Submit an official college transcript from each accredited institution of higher education that you have attended.
4. Submit either COMPASS or ACT/SAT scores.
 - Complete the COMPASS placement test. This test enables us to place you in the appropriate classes to enhance your success in college.

OR

- Submit ACT/SAT scores, (valid for seven years from date of testing).
5. Meet with one of the College of Technology advisors to finalize your acceptance. To make an appointment, call (208)282-2622.
 6. Apply for financial aid if needed.

Admission Requirements

Because some programs fill several months in advance, all necessary documentation should be completed and returned to respective offices as early as possible. If applications are late, processing may be delayed. Students may appeal admission decisions through a petition process.

The following professional/technical standards were established by the Idaho State Board of Education and implemented in April 2003.

Professional-Technical Admission Standards

Standards for high school graduates of 1997 and after must meet the following conditions for Regular Admission:

1. Graduate from high school with a 2.0 GPA.
2. Complete a placement examination (ACT, SAT, COMPASS). Scores will be used to determine placement eligibility for specific programs.
3. Complete specific high school coursework as defined in the table below.

Subject and Required Courses	High School Credits
Mathematics Algebra I, Geometry, Applied Math I, II, and III, Algebra II, Trigonometry, Discrete Math, Statistics, and other higher level math courses. Two (2) mathematics credits must be taken in the 11th or 12th grade.	4 cr*
Natural Science Applied Biology/Chemistry, Principles of Technology (Applied Physics), Anatomy, Biology, Earth Science, Geology, Physiology, Physical Science, Zoology, Physics, Chemistry, Agricultural Science and Technology courses. Two credits must be lab.	4 cr*
English Composition, Literature, Applied English in the Workplace.	8 cr*
Other Professional-technical courses including Tech Prep sequences and organized work-based learning experiences connected to the school-based curriculum are strongly recommended.	

*Six (6) credits recommended for students intending to pursue education beyond the Associate of Applied Science.

Standards for Others Seeking Regular Admission

Individuals who graduated from high school, received a GED prior to 1997, or who are at least 21 years old must complete the following:

1. Graduate from high school with a 2.0 GPA or pass the GED;
2. Complete a placement examination (ACT, SAT, COMPASS). Scores will be used to determine placement eligibility for specific programs.

Professional Technical Conditional Admission

Standards for students seeking conditional admission include the following:

1. Graduate from high school or pass the GED.
2. Complete a placement examination (ACT, SAT, COMPASS). Scores will be used to determine placement eligibility for specific programs.

Ability to Benefit

Individuals without a high school diploma or GED may be admitted through the ability to benefit under extenuating circumstances. Applicants are encouraged to take the GED. For more information contact Student Services at (208) 282-2622.

Readmission

Former College of Technology students who have been out of school one session/

semester or more must complete necessary forms in the Student Services office for approval to return to the program. Students will enter under the current catalog.

Acceptance

An acceptance letter is sent to all accepted College of Technology applicants. An advance registration deposit, which will be applied to the first registration fee, is required of applicants upon acceptance into a College of Technology program to assure a place in the program.

Non-attendance Policy

Students not attending the first day of class may be disenrolled due to non-attendance.

Change of Curriculum

Students who want to change registration from the College of Technology to academic courses are required to meet the University's academic admission standards such as ACT/SAT requirements for student under the age of 21. Students should contact the College of Technology's Student Services Office to initiate the process.

Credits

One College of Technology credit is equivalent to approximately 15 hours of lecture, 30 hours of laboratory, or 45 hours of clinical or internship.

Credits Granted for Previous Training or Experience

1. A student seeking credit for prior training, education, or work experience must complete a petition (initiated through the Student Services Office) and receive official approval. Performance objectives established for specific program courses must be met. The assessment procedure includes providing written documentation of training and experience, completing written examinations and demonstrations of skills, 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

Students 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;
3. Three (3) credit hours of social science/human relations/interpersonal communications selected from Goals 6, 7, 9, 10A, 11, or 12; and
4. Four (4) additional credits hours from any courses that meet the General Education requirements (some programs require specific General Education courses).

Students transferring into an Idaho State University Bachelor degree program may count TGE 101 Spoken Communication toward the fulfillment of Goal 2.

Progression

Progression into succeeding courses of study will require successful completion (passing grades) of any courses listed as prerequisites for those desired courses.

Change of Program

To change programs within the College, a currently-enrolled student must see a counselor in the Student Services Office. The counselor will assist the student with the completion of a Change of Program Card. Once all required signatures are obtained, the card must be returned to the Student Services Office.

If a student is on probation and changes to another program, the probation status is transferred to the new program. If a student is on academic dismissal and changes programs, the dismissal status transfers to the new program. Please refer to the academic section of the Undergraduate catalog for a complete description of Idaho State University's Scholastic Probation and Dismissal Policy.

Application for Graduation

Students planning to graduate should apply for graduation no later than one semester before all requirements are completed. Students should contact the Student Services Office to obtain applications for graduation and pay the \$20 graduation/diploma fee. Additional and optional graduation applications may be completed for a fee of \$10 each.

To graduate from a College of Technology program, a student must have an accumulative grade point average of 2.0 (without any F grades based on the required College of Technology courses) in the enrollee's program of study. A student must complete an application for graduation and pay a diploma fee.

Certificates

The following certificates are offered for designated programs through the College of Technology. Programs offering certificates meet approved curriculum.

- Postsecondary Technical Certificate
- Technical Certificate
- Advanced Technical Certificate

Associate of Applied Science Degree

The Associate of Applied Science Degree is offered for designated programs through the College of Technology. Programs offering this degree are at least 18 months in length and follow specific approved curricula. For additional information, contact the Student Services Office at the College of Technology at (208) 282-2622.

Interdisciplinary Degrees

Bachelor of Applied Science/ Bachelor of Applied Technology

The Bachelor of Applied Science (BAS) and the Bachelor of Applied Technology (BAT) degrees are interdisciplinary degrees designed specifically for students who have completed Associate of Applied Science (AAS) degrees approved by the Idaho State Board of Education. The purpose of these degrees is to provide AAS graduates the opportunity to expand their general education competencies and to enhance the technical coursework of their AAS with related academic coursework. These degrees build upon the knowledge a student gained through the pursuit of the AAS while providing the education and critical-thinking skills that open career opportunities. The BAS and BAT degrees are administered through the Student Services Office in the College of Technology. All individual degree plans are approved by assigned advisors and by a representative university committee. See www.isu.edu/ctech/studentervices/BAT.shtml.

Bachelor of Science with a Major in Health Science

The objective of the Bachelor of Science with a major in Health Science is to allow students who have graduated or are enrolled in health occupations training at the level of an associate degree to pursue a bachelor's degree with an advanced general health science focus. This degree provides a curriculum for students who desire an education that can serve as a foundation for additional professional or graduate work in several health science professions, including medicine, dentistry, hospital administration, medical technology, physical therapy, and occupational therapy. The B.S. degree with a major in health science is administered through the Student Services Office in the College of Technology. See www.isu.edu/ctech/bshealth.shtml.

Regular Preparatory Programs

Each of the college's preparatory programs consists of a series of courses designed to teach the necessary skills and knowledge of a specific occupational field. Program length may vary depending on student's academic qualifications at time of acceptance. One semester consists of sixteen weeks of instruction. Programs operate on the average of six hours each week day.

Program/Option/Course Availability

A program, option, and/or course may not be offered if one or more of the following conditions exist:

1. insufficient student enrollment
2. a certified instructor is not available
3. adequate facilities and/or equipment are not available

Other Policies

Policies not stated in the College of Technology section of the catalog will follow Idaho State University policies. Waiver of any of the above rules may be made only by petition and with the approval of the Program Coordinator, Department Chair, and the Associate Dean of the College of Technology.

Aircraft Maintenance Technology

(2½ to 4 ½ Semesters)

Instructors: Prickett, Shipley

One Technical Certificate, one Advanced Technical Certificate, one Associate of Applied Science degree and one Bachelor of Applied Science degree are available.

Objective: To prepare graduates for entry-level employment in airframe and powerplant maintenance in compliance with FAA regulations as they begin their careers as technicians.

For a Program Information Packet showing descriptions of each option, course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to <http://www.isu.edu/ctech/aircraftmaint.shtml>.

This program requires students to achieve certain grades in order to advance each semester. Specific information is available in the program's student handbook.

Technical Certificate: Airframe

(2½ Semesters)

Required Courses:

AIRM 0101	Mathematics	3 cr
AIRM 0102	Aircraft Drawing	1 cr
AIRM 0103	Truss Structures	3 cr
AIRM 0104	Materials and Processes	7 cr
AIRM 0105	Sheetmetal Structure	6 cr
AIRM 0107	Forms and Regulations	3 cr
AIRM 0108	Basic Electricity	3 cr
AIRM 0109	Fluid Systems	5 cr
AIRM 0110	Landing Gear Systems	4 cr
AIRM 0111	Utility Systems	3 cr
AIRM 0112	Electrical Systems	5 cr
AIRM 0120	Structural Welding	2 cr
		TOTAL: 45 cr

Advanced Technical Certificate: Power Plant

(4½ Semesters)

Required Courses:

AIRM 0101	Mathematics	3 cr
AIRM 0102	Aircraft Drawing	1 cr
AIRM 0103	Truss Structures	3 cr
AIRM 0104	Materials and Processes	7 cr
AIRM 0105	Sheetmetal Structure	6 cr
AIRM 1107	Forms and Regulations	3 cr
AIRM 0108	Basic Electricity	3 cr
AIRM 0109	Fluid Systems	5 cr
AIRM 0110	Landing Gear Systems	4 cr
AIRM 0111	Utility Systems	3 cr
AIRM 0112	Electrical Systems	5 cr

AIRM 0120	Structural Welding	2 cr
AIRM 0221	Basic Reciprocating Engines	3 cr
AIRM 0222	Advanced Reciprocating Engines	2 cr
AIRM 0223	Basic Turbine Engines	3 cr
AIRM 0224	Advanced Turbine Engines	2 cr
AIRM 0225	Engine Lubrication Systems	2 cr
AIRM 0226	Induction and Exhaust Systems	2 cr
AIRM 0227	Engine Fuel Systems	3 cr
AIRM 0228	Ignition and Cooling Systems	5 cr
AIRM 0229	Engine Electrical and Instrument Systems	4 cr
AIRM 0230	Engine Propellers	4 cr
		TOTAL: 75 cr

Associate of Applied Science Degree: Airframe and Powerplant

(5½ Semesters)

Required Courses:

AIRM 0101	Mathematics	3 cr
AIRM 0102	Aircraft Drawing	1 cr
AIRM 0103	Truss Structures	3 cr
AIRM 0104	Materials and Processes	7 cr
AIRM 0105	Sheetmetal Structure	6 cr
AIRM 0107	Forms and Regulations	3 cr
AIRM 0108	Basic Electricity	3 cr
AIRM 0109	Fluid Systems	5 cr
AIRM 0110	Landing Gear Systems	4 cr
AIRM 0111	Utility Systems	3 cr
AIRM 0112	Electrical Systems	5 cr
AIRM 0120	Structural Welding	2 cr
AIRM 0221	Basic Reciprocating Engines	3 cr
AIRM 0222	Advanced Reciprocating Engines	2 cr
AIRM 0223	Basic Turbine Engines	3 cr
AIRM 0224	Advanced Turbine Engines	2 cr
AIRM 0225	Engine Lubrication Systems	2 cr
AIRM 0226	Induction and Exhaust Systems	2 cr
AIRM 0227	Engine Fuel Systems	3 cr
AIRM 0228	Ignition and Cooling Systems	5 cr
AIRM 0229	Engine Electrical and Instrument Systems	4 cr
AIRM 0230	Engine Propellers	4 cr

General Education Requirements:

ENGL 1101	English Composition	3 cr
Goal 2		3 cr
Goal 3		3 cr
Goals 6, 7, 9, 10A, 11 or 12		3 cr
Goal 4-12		4 cr
		TOTAL: 91 cr

AIRM Courses

AIRM 0101 Mathematics 3 credits. Mathematical theory pertaining to gear ratios, areas, power formulas, bend allowances, and weight and balances on aircraft. F

AIRM 0102 Aircraft Drawing 1 credit. Theory and lab practice in making, reading, and using drawings and blueprints on aircraft. S

AIRM 0103 Truss Structures 3 credits. Theory and lab practice in gas welding; rebuilding and repairing wooden structures, and fabric repair and recovering techniques. F

AIRM0104 Materials and Processes 7 credits. Theory and lab practice covering aircraft; ground operation; assembly and rigging; hardware; care, properties, and uses of various materials; aircraft finishes and the various methods of finish application. F

AIRM 0105 Sheetmetal Structures 6 credits. Theory and lab practice in maintenance and repair of metal aircraft. S

AIRM0107 Forms and Regulations 3 credits. Theory and lab practice in interpretation and use of the various forms and regulations pertaining to aircraft maintenance. F

AIRM 0108 Basic Electricity 3 credits. Theory and lab practice in principles and uses of electricity in the various circuits and controls of the aircraft. S

AIRM 0109 Fluid Systems 5 credits. The students will learn how to identify the different fluids that are used in the hydraulic systems and the care and precautions that are necessary for the safe handling of these fluids. The students will be instructed in the operation of systems and be able to troubleshoot the systems. S

AIRM0110 Landing Gear Systems 4 credits. Theory and lab practice in operation, maintenance, and repair of landing gear systems of the aircraft. S

AIRM 0111 Utility Systems 3 credits. Theory and lab practice in operation, maintenance, and repair of utility systems such as position and warning, aircraft instruments, climate controls, communication and navigation, ice and fire protection, and miscellaneous systems. Su

AIRM0112 Electrical Systems 5 credits. Theory and lab practice in operation, maintenance, and repair of electrical systems in aircraft. Su

AIRM 0120 Structural Welding 2 credits. Theory and lab practice in gas welding of aircraft structural components. F

AIRM 0221 Basic Reciprocating Engines 3 credits. Design, construction, and operation of radial, opposed, and in-line engines; disassembly, assembly, and run-up of various types of engines. F

AIRM0222 Advanced Reciprocating Engines 2 credits. Repair and overhaul of reciprocating engines, installation and test. F

AIRM 0223 Basic Turbine Engines 3 credits. Design, construction, and operation of gas turbine and turbo-prop engines. S

AIRM 0224 Advanced Turbine Engines 2 credits. Repair and overhaul of turbine engines. S

AIRM 0225 Engine Lubrication Systems 2 credits. Design and operation of oil system; its repair and installation. S

AIRM 0226 Induction and Exhaust Systems 2 credits. Design and operation of air intake, exhaust on reciprocating and jet engines. F

AIRM 0227 Engine Fuel Systems 3 credits. Design and operation of carburetor, fuel injection, and hydromechanical fuel systems on reciprocating and jet engines. F

AIRM 0228 Ignition and Cooling Systems 5 credits. Design, operation, and overhaul of magneto ignition and capacitor discharge ignition, and cooling systems. F

AIRM 0229 Engine Electrical and Instrument Systems 4 credits. Design, operation, and overhaul of the various electrical components and system indicators used on aircraft engines. S

AIRM 0230 Engine Propellers 4 credits. Design, operation, overhaul, and installation of propellers and components. S

AIRM 0296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U or may be letter graded. PREREQ: Permission of instructor. D

AIRM 0298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

Associate Degree Registered Nurse Program

Director and Professor: Smith

Coordinator and 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 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:

- 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.
- Completion of the following prerequisite courses, or equivalents, with a grade of "C" or better: ENGL 1101 and 1102; PSYC 1101; NTD 2239 or 3340 (NTD 3340 preferred); BIOL 2221 and 2221L or equivalent, 3 credits from Goal 3 (MATH 1153 preferred); COMM 1101; and BIOL 3301, 3301L, 3302, and 3302L. Options exist for transfer credit or testing. Please consult with Student Services at (208) 282-2622.
- Accumulative grade point average (GPA) of at least 2.5 for all post-secondary education, is required.
- Active, unrestricted licensure to practice as an LPN in the State of Idaho.
- Current CPR certification (AHA or American Red Cross only).
- Proof of successful completion of IV Therapy course.
- Proof of current immunization and verified good health status per program policy, upon conditional acceptance into the program.
- Background check and drug screening per department policy, upon conditional acceptance into the program.

Students are admitted to the ADRN program once per year using a competitive application process. Upon completion or near-completion of the above criteria, submit a program application and application fee to Student Services, College of Technology (208) 282-2622. Once application is submitted and complete, and eligibility verified, the student will take a nationally-normed program entrance examination. This exam score is combined with cumulative post-secondary GPA, years of LPN experience, and documented adherence to nursing standards (reference) to rank-order applicants for each admission class.

For a Program Information Packet showing course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to <http://www.isu.edu/ctech/registerednurse.shtml>.

This program requires students to achieve certain grades in order to advance each semester. Specific information is available in the program's student handbook.

Associate of Science Degree: Nursing

4½ Semester Program, including pre-requisite courses

This is an academic Associate of Science degree program that provides classroom, laboratory, and clinical practicum instruction which prepares graduates to write the NCLEX-RN examination. Successfully passing this examination is a prerequisite for registered nurse licensure. Graduates from this program may articulate into programs offering B.S. and/or M.S. degrees in Nursing.

The courses listed below are specific to Idaho State University. Equivalent courses from other institutions will be individually evaluated and transferred in as appropriate.

General Education and Prerequisite Courses

BIOL 2221,2221L	Introductory Microbiology, and Lab	4 cr
BIOL 3301,3301L	Anatomy and Physiology, and Lab (Goals 4 and 5)	4 cr
BIOL 3302,3302L	Anatomy and Physiology and Lab (Goals 4 and 5)	4 cr
COMM 1101	Principles of Speech (Goal 2)	3 cr
ENGL 1101	English Composition	3 cr
ENGL 1102	Critical Reading and Writing (Goal 1)	3 cr
NTD 2239	Nutrition OR	3 cr
NTD 3340	Nutrition for Health Professionals (preferred)	3 cr
PSYC 1101	Introduction to General Psychology (Goal 12)	3 cr
Goal 3 (MATH 1153 preferred)		3 cr
Two of Goals 6, 7, 8		6 cr
One of Goals 9, 10A or 10B	(minimum)	3 cr
Goal 11		3 cr

Program-Specific Courses

ADRN 2210	Nursing Transition	2 cr
ADRN 2211	Mental Health Nursing	3 cr
ADRN 2212	Clinical Foundations of Nursing III	2 cr
ADRN 2220,2220L	Health Assessment, and Lab	3 cr
ADRN 2230	Medical and Surgical Nursing III	3 cr
ADRN 2231	Clinical Foundations IV	4 cr
ADRN 2232	Family Nursing	3 cr
ADRN 2233	Medical and Surgical Nursing IV	3 cr
ADRN 2245	Clinical Foundations of Nursing V	3 cr
MINIMUM TOTAL FOR DEGREE:		68 cr

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.

Semester 1 (Fall)

BIOL 2221,2221L	Introductory Microbiology, and Lab	4 cr
BIOL 3301,3301L	Anatomy and Physiology, and Lab	4 cr
COMM 1101	Principles of Speech	3 cr
ENGL 1101	English Composition	3 cr
PSYC 1101	Introduction to General Psychology	3 cr
Total for Fall Semester:		17 cr

Semester 2 (Spring)

BIOL 3302,3302L	Anatomy and Physiology, and Lab	4 cr
ENGL 1102	Critical Reading and Writing	3 cr
NTD 2239	Nutrition OR	3 cr
NTD 3340	Nutrition For Health Professionals (preferred)	3 cr
Goal 3 (MATH 1153 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:

Semester 3 (Fall)

ADRN 2210	Nursing Transition	2 cr
ADRN 2211	Mental Health Nursing	3 cr
ADRN 2212	Clinical Foundations of Nursing III	2 cr
ADRN 2220,2220L	Health Assessment, and Lab	3 cr
Goal 11		3 cr
Total for Fall Semester:		13 cr

Semester 4 (Spring)

ADRN 2230	Medical and Surgical Nursing III	3 cr
ADRN 2231	Clinical Foundations of Nursing IV	4 cr
ADRN 2232	Family Nursing	3 cr
Two of Goals 6, 7, 8		6 cr
Total for Spring Semester:		16 cr

Summer Semester

ADRN 2233	Medical and Surgical Nursing IV	3 cr
ADRN 2245	Clinical Foundations of Nursing V	3 cr
Total for Summer Semester:		6 cr

ADRN Courses

ADRN 2210 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 2211 Mental Health Nursing 3 credits. Nursing assessment and care of the patient and family experiencing psycho-social and mental health disorders within acute, chronic, and community settings. PREREQ: Admission to program. F

ADRN 2212 Clinical Foundations of Nursing III 2 credits. Clinical experiences for nursing care within a variety of acute and community-based settings guide the development of the problem solving process in nursing. The focus of this course is on skilled nursing and mental health nursing care, including therapeutic use of self. COREQ: ADRN 2210, ADRN 2211 and ADRN 2220. F

ADRN 2220 Health Assessment 2 credits. Health assessment of all ages, interpretation of data, extended development of critical thinking skills; developing patient care based on clinical findings. PREREQ: Admission to program. COREQ: ADRN 2220L. F

ADRN 2220L Health Assessment Lab 1 credit. Practical experience in health assessment of all ages; interpretation of clinical data in simulated situations; planning and prioritizing care based on clinical findings. COREQ: ADRN 2220. F

ADRN 2230 Medical and Surgical Nursing III 3 credits. Professional nursing care of individuals and groups with acute and chronic health events requiring nursing assessment and intervention within institutional and community care facilities. PREREQ: ADRN 2212. COREQ: ADRN 2231 and ADRN 2232. S

ADRN 2231 Clinical Foundations of Nursing IV 4 credits. Clinical experiences for nursing care within a variety of acute and community-based settings guide the development of knowledge and skills. PREREQ: ADRN 2212. COREQ: ADRN 2230. S

ADRN 2232 Family Nursing 3 credits. Study of conditions or complications of women's health, pregnancy, peri-partum, plus newborn, child, and family assessment; nursing care and prioritization of interventions for the child-bearing, child-rearing family are addressed. COREQ: ADRN 2231. S

ADRN 2233 Medical and Surgical Nursing IV 3 credits. The three roles of the nurse are established within the framework of legal and ethical professional nursing practice. Nursing assessments and interventions in the high-acuity patient are addressed. PREREQ: ADRN 2230. COREQ: ADRN 2245. Su

ADRN 2245 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 2231. COREQ: ADRN 2233. Su

ADRN 2296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U or may be letter graded. PREREQ: Permission of instructor. D

Automotive Collision Repair and Refinishing

(2½ to 4 Semesters)

Program Coordinator and 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 semester. Specific information is available in the program's student handbook.

Technical Certificate: Automotive Collision Repair

(2½ Semesters)

Required Courses:

ACRR 0146	Introduction to Collision and Refinishing	8 cr
ACRR 0147	Minor Collision Repair and Refinishing	8 cr
ACRR 0210	Advanced Collision Repair I	8 cr
ACRR 0211	Advanced Collision Repair II	8 cr
ACRR 0212	Advanced Collision Repair III	8 cr
		TOTAL: 40 cr

Technical Certificate: Automotive Refinishing

(2½ Semesters)

Required Courses:

ACRR 0146	Introduction to Collision and Refinishing	8 cr
ACRR 0147	Minor Collision Repair and Refinishing	8 cr
ACRR 0160	Advanced Refinishing I	8 cr

ACRR 0161	Advanced Refinishing II	8 cr
ACRR 0162	Advanced Refinishing III	8 cr
		TOTAL: 40 cr

Advanced Technical Certificate: Automotive Repair and Refinishing

(4 Semesters)

Required Courses:

ACRR 0146	Introduction to Collision and Refinishing	8 cr
ACRR 0147	Minor Collision Repair and Refinishing	8 cr
ACRR 0160	Advanced Refinishing I	8 cr
ACRR 0161	Advanced Refinishing II	8 cr
ACRR 0162	Advanced Refinishing III	8 cr
OR		
ACRR 0252	Cooperative Work Experience	8 cr
ACRR 0210	Advanced Collision Repair I	8 cr
ACRR 0211	Advanced Collision Repair II	8 cr
ACRR 0212	Advanced Collision Repair III	8 cr
OR		
ACRR 0252	Internship	8 cr
		TOTAL: 64 cr

Associate of Applied Science Degree: Automotive Collision Repair and Refinishing

(4 Semesters)

Required Courses:

Certificate in Automotive Collision Repair and Refinishing, plus:

ACRR 0146	Introduction to Collision and Refinishing	8 cr
ACRR 0147	Minor Collision Repair and Refinishing	8 cr
ACRR 0160	Advanced Refinishing I	8 cr
ACRR 0161	Advanced Refinishing II	8 cr
ACRR 0162	Advanced Refinishing III	8 cr
OR		
ACRR 0252	Cooperative Work Experience	8 cr
ACRR 0210	Advanced Collision Repair I	8 cr
ACRR 0211	Advanced Collision Repair II	8 cr
ACRR 0212	Advanced Collision Repair III	8 cr
OR		
ACRR 0252	Internship	8 cr

General Education Requirements:

ENGL 1101	English Composition	3 cr
Goal 2		3 cr
Goal 3		3 cr
Goals 6, 7, 9, 10A, 11 or 12		3 cr
Goal 2-12		4 cr
		TOTAL: 80 cr

ACRR Courses

Students have three weeks to order the tools necessary for Automotive Collision Repair and Refinishing in ACRR 0146.

ACRR 0146 Introduction to Automotive Collision and Refinishing 8 credits. Theory and practice to use and care for body tools, fasteners; operation of oxyacetylene and M.I.G. welding equipment including brazing and cutting. Also, the fundamentals of basic metal finishing including the use of plastic filler. Safety rules and procedures will be emphasized. "Right to know" laws, OSHA, and hazardous material are stressed. PREREQ: Must have tools required or ordered within one week of beginning of class. F, S, Su

ACRR 0147 Minor Collision Repair and Refinishing 8 credits. Metal finishing with fillers is continued. Refinishing fundamentals are taught and practiced, including prepping vehicles for refinishing from washing the vehicle to the final top color or clear coat. Projects will be both components and customer vehicles. Systems application is taught. PREREQ: ACRR 0146. F, S, Su

ACRR 0160 Advanced Refinishing I 8 credits. Advanced technical refinishing terms will be introduced and explained along with Environmental Protection Agency laws. High Volume Low Pressure application will be used. Emphasis on detailing a vehicle. System application will be emphasized. PREREQ: ACRR 0147. F, S, Su

ACRR 0161 Advanced Refinishing II 8 credits. Live-work projects using single and two stage painting processes and tri-coating with a high volume, low pressure application system. PREREQ: ACRR 0160. F, S

ACRR 0162 Advanced Refinishing III 8 credits. Tri-coating, striping, and variation of painting applications. Troubleshooting and corrective actions for problems encountered when painting. PREREQ: ACRR 0161. F, S

ACRR 0210 Advanced Collision Repair I 8 credits. Estimating, glass removal and replacement, frame repair and frame rack setup, body panel and part replacement and alignment, welding techniques, and corrosion protection. PREREQ: ACRR 0146 and ACRR 0147 or Tech Prep articulation. F, S

ACRR 0211 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 0210. F, S

ACRR 0212 Advanced Collision Repair III 8 credits. Automotive electrical circuitry, window and water leak diagnosis, air bags, and seatbelts. PREREQ: ACRR 0210. F, S

ACRR 0252 Internship 8 credits. An opportunity for the student to receive on-the-job work experience with an automotive body business in either collision repair or refinishing. Graded S/U. PREREQ: ACRR 0161 and ACRR 0211. D

ACRR 0296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U or may be letter graded. PREREQ: Permission of instructor. D

ACRR 0298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not

included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

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 0100	Introduction to Automotive Technology	1 cr
AUTM 0110	Vehicle Controls I	4 cr
AUTM 0111	Vehicle Controls II	4 cr
AUTM 0112	Power Trains I	3 cr
AUTM 0113	Power Trains II	5 cr
AUTM 0114	Automotive Engines I	3 cr
AUTM 0115	Automotive Engines II	5 cr
AUTM 0116	Automotive Electrical I	4 cr
AUTM 0117	Automotive Electrical II	4 cr
AUTM 0118	Live Work I	8 cr
AUTM 0119	Live Work II	8 cr
AUTM 0201	Advanced Electrical Systems	8 cr
		TOTAL: 57 cr

Associate of Applied Science Degree: Automotive Technology

(4 Semesters)

Required Courses:

AUTM 0100	Introduction to Automotive Technology	1 cr
AUTM 0110	Vehicle Controls I	4 cr
AUTM 0111	Vehicle Controls II	4 cr
AUTM 0112	Power Trains I	3 cr
AUTM 0113	Power Trains II	5 cr
AUTM 0114	Automotive Engines I	3 cr
AUTM 0115	Automotive Engines II	5 cr
AUTM 0116	Automotive Electrical I	4 cr
AUTM 0117	Automotive Electrical II	4 cr
AUTM 0118	Live Work I	8 cr
AUTM 0119	Live Work II	8 cr
AUTM 0201	Advanced Electrical Systems	8 cr

General Education Requirements:

ENGL 1101	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	(minimum)	4 cr
		TOTAL: 73 cr

AUTM Courses

AUTM 0100 Introduction to Automotive Technology 1 credit. Personal and equipment safety procedures in the automotive industry, use of hand tools, component identification and function, fasteners, use of threaded materials, tubing, hydraulic tools, and familiarization with technical manuals and procedures. Graded S/U. F, S, Su, W

AUTM 0110 Vehicle Controls I 4 credits. Introduction to Automotive Technology to include front and rear suspension systems, steering systems (power and manual), alignment, balancing of wheels, and steering systems on foreign and domestic vehicles in accordance with Automotive Service Excellence (ASE) standards. D

AUTM 0111 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. PREREQ: AUTM 0110. D

AUTM 0112 Power Trains I 3 credits. Car and truck clutches, manual transmissions (4 through 6 speed) manual transaxles (4 through 6 speed), transfer cases, and manual transmissions with overdrives on foreign and domestic vehicles in accordance with Automotive Service Excellence (ASE) standards. D

AUTM 0113 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. PREREQ: AUTM 0112. D

AUTM 0114 Automotive Engines I 3 credits. Ignition systems, electrical theory, cylinder heads, valve trains, refinishing, and air con-

ditioning for foreign and domestic vehicles in accordance with Automotive Service Excellence (ASE) standards. D

AUTM 0115 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. PREREQ: AUTM 0114. D

AUTM 0116 Automotive Electrical I 4 credits. Alternator nomenclature and testing methods. Starter motor diagnostics, troubleshooting, repair, and test procedures. Chassis wiring components, computer control fundamentals, computer control electronics and methods, monitoring systems, and air conditioning for foreign and domestic vehicles in accordance with Automotive Service Excellence (ASE) standards. D

AUTM 0117 Automotive Electrical II 4 credits. Computerized engine controls, electronic fuel injection and carburetor standard types, computer controlled fuel solenoids and throttle body carburetors, port injection, and computer controlled ignition and timing. Blowers, turbochargers, and vehicle emission control systems in accordance with Automotive Service Excellence (ASE) standards. PREREQ: AUTM 0116. D

AUTM 0118 Live Work I 8 credits. Work on customer-owned, current, and late model vehicles in a shop environment. PREREQ: AUTM 0111, AUTM 0113, AUTM 0115, and AUTM 0117. D

AUTM 0119 Live Work II 8 credits. Prepares students for ASE certification via work on customer-owned, current, and late model vehicles in a shop environment. Shop management and customer relations. PREREQ: AUTM 0118. D

AUTM 0198 Special Topics 1-8 credits. Addresses the specific needs of individuals, enabling students to upgrade their technical skills through part-time enrollment in units of instruction that are currently available through the program's full-time pre-employment curriculum. PREREQ: Permission of instructor. D

AUTM 0201 Advanced Electrical Systems 8 credits. Multiplexing communication protocols, lab scoping senders, controls, actuators, pumps, and motors. Use electronic chassis controls to diagnose vehicle traction and stability control, emission control systems, electronic shift, and immobilizer systems; conduct drivability tests on a chassis dynamometer, and use hand held diagnostic tools. Su

AUTM 0296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U or may be letter graded. PREREQ: Permission of instructor. D

AUTM 0298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

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/tech/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)

Required Courses:

BCT 0110	Hand Tools, Power Hand Tools, and Power Tools	2 cr
BCT 0112	Construction Blueprint Reading I	3 cr
BCT 0115	Introduction to Masonry	2 cr
BCT 0116	Floor and Wall Construction	4 cr
BCT 0117	Introduction to Stairway Construction	2 cr
BCT 0118	Roof Framing Construction	4 cr
BCT 0120	Trim Carpentry Techniques	4 cr
BCT 0121	Basic Cabinetmaking	5 cr
BCT 0142	Construction Blueprint Reading II	2 cr
BCT 0160	Construction Mathematics	2 cr
BCT 0161	Planning and Estimating	2 cr
BCT 0201	Concrete (Forming, Pouring and Finishing)	3 cr
BCT 0202	Floor and Sills	2 cr
BCT 0203	Interior Wall and Ceiling	2 cr
BCT 0204	Roof-Rafters and Sheathing	3 cr
BCT 0205	Special Framing (Stairways)	2 cr
BCT 0206	Field Construction Methods	2 cr
BCT 0210	Cornices and Gable Ends	2 cr
BCT 0211	Roofing	2 cr
BCT 0212	Exterior Walls and Trim	2 cr
BCT 0213	Exterior Doors & Windows	2 cr

BCT 0214	Insulation	1 cr
BCT 0215	Drywall	2 cr
BCT 0216	Interior Doors and Trim	3 cr
BCT 0217	Flooring	1 cr
BCT 0218	Steel Stud Framing	2 cr
BCT 0219	Technical Upgrade	1 cr
		TOTAL: 64 cr

Associate of Applied Science Degree: Building Construction

(4 Semesters)

Required Courses:

BCT 0110	Hand Tools, Power Hand Tools, and Power Tools	2 cr
BCT 0112	Construction Blueprint Reading I	3 cr
BCT 0115	Introduction to Masonry	2 cr
BCT 0116	Floor and Wall Construction	4 cr
BCT 0117	Introduction to Stairway Construction	2 cr
BCT 0118	Roof Framing Construction	4 cr
BCT 0120	Trim Carpentry Techniques	4 cr
BCT 0121	Basic Cabinetmaking	5 cr
BCT 0142	Construction Blueprint Reading II	2 cr
BCT 0160	Construction Mathematics	2 cr
BCT 0161	Planning and Estimating	2 cr
BCT 0201	Concrete (Forming, Pouring and Finishing)	3 cr
BCT 0202	Floor and Sills	2 cr
BCT 0203	Interior Wall and Ceiling	2 cr
BCT 0204	Roof-Rafters and Sheathing	3 cr
BCT 0205	Special Framing (Stairways)	2 cr
BCT 0206	Field Construction Methods	2 cr
BCT 0210	Cornices and Gable Ends	2 cr
BCT 0211	Roofing	2 cr
BCT 0212	Exterior Walls and Trim	2 cr
BCT 0213	Exterior Doors & Windows	2 cr
BCT 0214	Insulation	1 cr
BCT 0215	Drywall	2 cr
BCT 0216	Interior Doors and Trim	2 cr
BCT 0217	Flooring	1 cr
BCT 0218	Steel Stud Framing	2 cr
BCT 0219	Technical Upgrade	1 cr

General Education Requirements:

ENGL 1101	English Composition	3 cr
Goal 2		3 cr
Goal 3		3 cr
Goals 6, 7, 9, 10A, 11 or 12		3 cr
Goals 2-12		4 cr
		Total: 80 cr

BCT Courses

BCT 0110 Hand Tools, Power Hand Tools, and Power Tools 2 credits. Students will learn to properly use and maintain the tools used in the construction trade. F

BCT 0112 Construction Blueprint Reading 3 credits. Students will learn to read a set of blueprints and list materials. F

BCT 0115 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 thereof. Students will use cement block, brick, pavers, and other masonry products in simulated building applications. F

BCT 0116 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 0117 Introduction To Stairway Construction 2 credits. The student will build different stairway layouts and find solutions to stairway problems. S

BCT 0118 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 0120 Trim Carpentry Techniques 4 credits. Students will learn to build and install base molding, door and window casing, crown molding, chair rails, and wall molding. F

BCT 0121 Basic Cabinetmaking 5 credits. Identify proper wood or plywood used in cabinetmaking; identify and cut a variety of wood-working joints; and layout, cut and assemble materials for case construction. F

BCT 0142 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 0112. S

BCT 0160 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 0161 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.

BCT 0201 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 0202 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 0203 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 0204 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 0205 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 0206 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

BCT0210 Cornices and Gable Ends 2 credits. Types and styles of cornices and gables 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 0211 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

BCT0212 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 0213 Exterior Doors & Windows 2 credits. Student will learn types of exterior doors and provide complete installation procedures to include door, frame, hardware, threshold, and weather-stripping. S

BCT 0214 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 0215 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 0216 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 0217 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 0218 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 219 Technical Upgrade 1 credit. New building product review, powder actuated tool certification, lead paint hazard awareness, positive air containment procedures, Americans with Disability Act compliance, radon radiation hazard awareness, Material Safety Data Sheets familiarization, Environmental Protection Agency compliance, green building techniques

and procedures, and energy conservation in home construction principles. S

BCT 0296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U or may be letter graded. PREREQ: Permission of instructor. D

BCT 0298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D.

Business Information

2 to 5 Semester Program Options

Coordinator and Assistant Professor:

Spinner

Assistant Professor: Enos

Master Instructor : Larson

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/ctech/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 appoint-

ments, 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: Accounting Technology

(2½ Semesters)

Required Courses:

BI 0110	Introduction to Business Information	2 cr
BI 0112	Voice Recognition	1 cr
BI 0118	Business Communications I	3 cr
BI 0119	Business Communications II	3 cr
BI 0120	Concepts of Accounting	3 cr
BI 0123	Business Mathematics	3 cr
BI 0144	Document Processing	3 cr
BI 0147	Accounting Applications	3 cr
BI 0148	Payroll Procedures	3 cr
BI 0170	Introduction to Computers	3 cr
BI 0171	Computerized Accounting	3 cr
BI 0173	Spreadsheets	3 cr
BI 0174	Records and Database Management	3 cr
		TOTAL: 36 cr

Technical Certificate: Administrative Technology

3 Semesters

Required Courses:

BI 0110	Introduction to Business Information	2 cr
BI 0112	Voice Recognition	1 cr
BI 0118	Business Communications I	3 cr
BI 0119	Business Communications II	3 cr
BI 0120	Concepts of Accounting	3 cr
BI 0121	Digital Input and Transcription	3 cr
BI 0123	Business Mathematics	3 cr
BI 0144	Document Processing	3 cr
BI 0145	Advanced Document Processing	3 cr

BI 0154	Administrative Management	3 cr
BI 0170	Introduction to Computers	3 cr
BI 0171	Computerized Accounting	3 cr
BI 0172	Business Information	
	Integration and Presentation	3 cr
BI 0173	Spreadsheets	3 cr
BI 0174	Records	
	and Database Management	3 cr
	TOTAL:	42 cr

Technical Certificate: Business Information Technology

(1½ to 2 semesters)

BI 0110	Introduction to Business	
	Information	2 cr
BI 0112	Voice Recognition	1 cr
BI 0121	Digital Input and Transcription	3 cr
BI 0144	Document Processing	3 cr
BI 0170	Introduction to Computers	3 cr
BI 0173	Spreadsheets	3 cr
BI 0174	Records and	
	Database Management	3 cr
TGE 0158	Employment Strategies	2 cr
	TOTAL:	20 cr

Technical Certificate: Legal Office Technology

(2½ to 3 Semesters)

Required Courses:

BI 0118	Business Communications I	3 cr
BI 0119	Business Communications II	3 cr
BI 0120	Concepts of Accounting	3 cr
BI 0121	Digital Input and Transcription	3 cr
BI 0123	Business Mathematics	3 cr
BI 0144	Document Processing	3 cr
BI 0145	Advanced Document	
	Processing	3 cr
BI 0152	Legal Terminology and	
	Office Procedures	3 cr
BI 0153	Legal Document Processing	3 cr
BI 0170	Introduction to Computers	3 cr
BI 0171	Computerized Accounting	3 cr
BI 0173	Spreadsheets	3 cr
BI 0174	Records and Database	
	Management	3 cr
	TOTAL:	39 cr

Advanced Technical Certificate: Medical Office Technology

(3 Semesters)

Required Courses:

BI 0118	Business Communications I	3 cr
BI 0119	Business Communications II	3 cr
BI 0120	Concepts of Accounting	3 cr
BI 0141	Keyboarding	1 cr
BI 0144	Document Processing	3 cr
BI 0145	Advanced Document	
	Processing	3 cr
BI 0170	Introduction to Computers	3 cr
HIT 0208	ICD 9-CM Coding	3 cr
HIT 0209	CPT Coding	3 cr
HO 0105	Introduction to	
	Allied Health Careers	2 cr
HO 0106	Medical Terminology	2 cr

HO 0107	Medical Law and Ethics	3 cr
HO 0111	Introduction to Anatomy	
	and Physiology	4 cr
MA 0104	Introduction	
	to Medical Assisting	4 cr
MA 0203	Computers	
	in Medical Assisting	4 cr

General Education Requirements:

BIOL 1101, 1101L	Biology I and Lab (Goal 4)	4 cr
	TOTAL:	48 cr

Associate of Applied Science Degree: Accounting Technology

(4 to 5 Semesters)

Required Courses:

BI 0110	Introduction to Business	
	Information	2 cr
BI 0112	Voice Recognition	1 cr
BI 0115	Practicum	3 cr
BI 0118	Business Communications I	3 cr
BI 0119	Business Communications II	3 cr
BI 0120	Concepts of Accounting	3 cr
BI 0123	Business Mathematics	3 cr
BI 0144	Document Processing	3 cr
BI 0147	Accounting Applications	3 cr
BI 0148	Payroll Procedures	3 cr
BI 0170	Introduction to Computers	3 cr
BI 0171	Computerized Accounting	3 cr
BI 0173	Spreadsheets	3 cr
BI 0174	Records and Database	
	Management	3 cr
ACCT 2201	Principles of Accounting I	3 cr
ACCT 2202	Principles of Accounting II	3 cr
MATH 1108	Intermediate Algebra	3 cr
MATH 1143	College Algebra	3 cr
MGT 2261	Legal Environment	
	of Organizations	3 cr

General Education Requirements:

ENGL 1101	English Composition	3 cr
Goal 1		3 cr
Goal 3		3 cr
ECON 2201	Principles of Macroeconomics	
	(Goal 11)	3 cr
	OR	
ECON 2202	Principles of Microeconomics	
	(Goal 11)	3 cr
Goals 2-12		(minimum) 4 cr
	TOTAL:	70 cr

Associate of Applied Science Degree: Administrative Management Technology

(4 Semesters)

Required Courses:

BI 0110	Introduction to Business	
	Information	2 cr
BI 0112	Voice Recognition	1 cr
BI 0115	Practicum	2 cr
BI 0118	Business Communications I	3 cr
BI 0119	Business Communications II	3 cr
BI 0120	Concepts of Accounting	3 cr

BI 0121	Digital Input and Transcription	3 cr
BI 0123	Business Mathematics	3 cr
BI 0144	Document Processing	3 cr
BI 0145	Advanced Document	
	Processing	3 cr
BI 0154	Administrative Management	3 cr
BI 0170	Introduction to Computers	3 cr
BI 0171	Computerized Accounting	3 cr
BI 0172	Business Information	
	Integration and Presentation	3 cr
	Spreadsheets	3 cr
BI 0173	Records and Database	
BI 0174	Management	3 cr

General Education Requirements (16 cr):

ENGL 1101	English Composition	3 cr
Goal 1		3 cr
Goal 2		3 cr
Goal 3		3 cr
Goals 4-12		(minimum) 4 cr
	TOTAL:	60 cr

Associate of Applied Science Degree: Legal Office Technology

(4 to 5 Semesters)

Required Courses:

BI 0115	Practicum	1-3 cr
BI 0118	Business Communications I	3 cr
BI 0119	Business Communications II	3 cr
BI 0120	Concepts of Accounting	3 cr
BI 0121	Digital Input and Transcription	3 cr
BI 0123	Business Mathematics	3 cr
BI 0144	Document Processing	3 cr
BI 0145	Advanced Document	
	Processing	3 cr
BI 0152	Legal Terminology and	
	Office Procedures	3 cr
BI 0153	Legal Document Processing	3 cr
BI 0170	Introduction to Computers	3 cr
BI 0171	Computerized Accounting	3 cr
BI 0173	Spreadsheets	3 cr
BI 0174	Records and Database	
	Management	3 cr
MANT 0121	Essentials of Management	3 cr
MANT 0240	Legal Environment	3 cr
PARA 0110	Introduction to Paralegal	
	Studies	3 cr
	OR	
PARA 0210	Fundamentals of Legal	
	Research and Analysis	3 cr

General Education Requirements:

ENGL 1101	English Composition	3 cr
Goal 2		3 cr
Goal 3		3 cr
POLS 1101	Introduction to	
	American Government	3 cr
Goal 12		3 cr
Goals 2-12		(minimum) 1 cr
	TOTAL:	65-67 cr

BI Courses

BI 0110 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 0112 Voice Recognition 1 credit. Introduction to use of voice recognition technology. D

BI 0115 Practicum 1-3 credits. On-the-job experience through internships, cooperative training, externships, workstudy, or other on-site work experience modalities. Graded S/U. PREREQ: Permission of instructor. F, S, Su

BI0118 Business Communications I 3 credits. Develops and reinforces skills in grammar, sentence structure, spelling, word usage, vocabulary, and punctuation. Emphasis on discussions of workplace communication and short compositions for use in the business environment. F, S

BI 0119 Business Communications II 3 credits. Provides communication skills necessary to speak and write clearly in business environment. Focus on proofreading, editing, composition, oral and listening communications, basic research, and employment methods. PREREQ: BI 0118 with a grade of "C-" or better. F, S

BI 0120 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 0121 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 0118 and BI 0144 or permission of the instructor. D

BI 0123 Business Mathematics 3 credits. Review of basic mathematics with emphasis on application problems in common business situations. F, S

BI0141 Keyboarding 1 credit. This is a tutorial class covering the keyboard and basic typing skills. Develops the student's ability to type at a minimum rate of 25 nwpm. Graded S/U. F, S, Su

BI0144 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 0145 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 0144. F, S

BI 0147 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 0118, BI 0120, and BI 0123. S

BI0148 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 0120, BI 0123, and BI 0170. S

BI 0152 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 0118. PREREQ OR COREQ: BI 0119 and BI 0145, or permission of instructor. S

BI0153 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: OR COREQ: BI 0152. S

BI 0154 Administrative Management 3 credits. Preparation for a broad range of administrative office management responsibilities. Collaboration skills, professional development, and career planning strategies. PREREQ: BI 0118 and BI 0144. PREREQ OR COREQ: BI 0173 and BI 0174. F, S

BI 0170 Introduction to Computers 3 credit. Basic concepts, vocabulary, and working knowledge required to use a computer. Weekly lectures/labs utilizing computers to understand concepts, operating systems, and software applications such as word processing, database, spreadsheets, electronic presentations, E-mail/Internet, and integrated projects that are used in the business environment. PREREQ: 25 nwpm. F, S, Su

BI 0171 Computerized Accounting 3 credits. This course is designed to offer the student the opportunity to experience hands-on microcomputer bookkeeping procedures, generate reports, and analyze financial statements. PREREQ: BI 0120, BI 0144, and BI 0170, or permission of instructor. F, S

BI0172 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 0173 Spreadsheets 3 credits. This course is designed to acquaint users with the process and skills of using personal computers and application software to create and format spreadsheets for the use of data computation and manipulation, database and file management, spreadsheet analysis, graphs. PREREQ: BI 0170 or permission of instructor; typing speed of 25 nwpm recommended. D

BI 0174 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 0170 or permission of instructor; typing speed of 25 nwpm recommended. D

BI 0201 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 0154 or permission of instructor. F

BI 0296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U or may be letter graded. PREREQ: Permission of instructor. D

BI 0298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

Business Technology

(See Marketing and Management Occupations)

Civil Engineering Technology

(4 Semesters)

Program Coordinator and
Master Instructor: Merrill
Instructor: Vahsholtz

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 staking 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/cetechnology.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:

CET 0110	Applied Mathematics I	4 cr
CET 0111/GEMT 1111	Drawing with CAD	3 cr
CET 0112/GEMT 1112	Beginning Surveying	5 cr
CET 0115	Materials Testing and Specifications I	2 cr
CET 0120	Applied Mathematics II	4 cr
CET 0121/GEMT 1121	Civil Engineering Technology Drafting	3 cr
CET 0122/GEMT 1122	Intermediate Surveying	5 cr
CET 0125	Materials Testing and Specifications II	2 cr
CET 0215	Materials Testing and Specifications III	3 cr
CET 0216/GEMT 2216	Route Survey and Design	6 cr
CET 0217/GEMT 2217	State Plane Coordinates	4 cr
CET 0220	Engineering Mechanics	3 cr
CET 0225	Materials Testing and Specifications IV	3 cr
CET 0226/GEMT 2226	Land and Construction Surveys	6 cr
CET 0227/GEMT 2227	Land Surveying Practices	4 cr

General Education Requirements:

ENGL 1101	English Composition	3 cr
COMM 1101	Principles of Speech	3 cr
		TOTAL: 66 cr

Associate of Applied Science Degree: Civil Engineering Technology

(4 Semesters)

Required Courses:

CET 0110	Applied Mathematics I	4 cr
CET 0111/GEMT 1111	Drawing with CAD	3 cr
CET 0112/GEMT 1112	Beginning Surveying	5 cr
CET 1015	Materials Testing and Specifications I	2 cr
CET 0120	Applied Mathematics II	4 cr
CET 0121/GEMT 1121	Civil Engineering Technology Drafting	3 cr
CET 0122/GEMT 1122	Intermediate Surveying	5 cr
CET 0125	Materials Testing and Specifications II	2 cr

CET 0211	Utility Design and Construction	3 cr
CET 0215	Materials Testing and Specifications III	3 cr
CET 0216/GEMT 2216	Route Survey and Design	6 cr
CET 0217/GEMT 2217	State Plane Coordinates	4 cr
CET 0220	Engineering Mechanics	3 cr
CET 0225	Materials Testing and Specifications IV	3 cr
CET 0226/GEMT 2226	Land and Construction Surveys	6 cr
CET 0227/GEMT 2227	Land Surveying Practices	4 cr

General Education Requirements:

ENGL 1101	English Composition	3 cr
Goal 2		3 cr
Goal 3		3 cr
Goals 6, 7, 9, 10A, 11 or 12		3 cr
PHYS 1101, 101L	Elements of Physics, and Lab	4 cr
		TOTAL: 76 cr

Courses listed will be taught in sequential blocks of instruction. At least a C- grade is required in all CET courses in order to continue to the next level course. A C- in any Civil Engineering Technology course will allow a student to continue; however, it could prevent a student from graduating if the cumulative grade point average is less than 2.0 (a C- equals 1.7). A student must have a 2.0 GPA in the program's required curriculum in order to be eligible for a certificate or degree.

After successful completion of Civil Engineering Technology's CET 0110 Applied Mathematics I and CET 0120 Applied Mathematics II, a student may enroll directly into an academic math course which requires MATH 1147 as a prerequisite.

CET Courses

Based on keyboarding skills, students may be required to take a 1 credit Keyboarding class in order to meet the competencies of the program.

CET 0110 Applied Mathematics I 4 credits. Review of numerical computations, algebra, equations and word problems, functions and graphs, geometry, right triangle trigonometry and vectors, factoring and fractional equations. Emphasis on using scientific calculator. Math will be applied to practical lab and field work when possible. F

CET 0111 Drawing with CAD 3 credits. A basic study of mechanical drawing with computer-aided-drafting emphasis. Instructional units include icon uses with layers, linetypes and colors, editing drawings, coordinate usage, polylines, isoview text; hatching, dimensioning, multiview, and layout. Cross-listed as GEMT 1111. F

CET 0112 Beginning Surveying 5 credits. Introduction to surveying. Theory and field work using equipment in the areas of measuring (taping, chaining, using hand levels), level-

ing (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 1112. F

CET 0115 Materials Testing and Specifications II 2 credits. Use of materials testing equipment to conduct test procedures and to verify specifications for soils and aggregates used in construction. Prepares student for WAQTC aggregate qualifications examination. F

CET 0120 Applied Mathematics II 4 credits. A continuation of CET 0110 Applied Mathematics I, studying oblique triangle trigonometry and vectors; radians, arc length, and rotations; exponents and radicals; quadratic equations; systems of linear equations; ratio, proportion, and variation, with emphasis on areas relating to Civil Engineering Technology. PREREQ: CET 0110. S

CET 0121 Civil Engineering Technology Drafting 3 credits. Civil Engineering Technology drafting, municipal and rural maps and drawings, drainage applications, plan and profile drawings, cross-sections, earthwork plats, legal descriptions, contour, quantity calculations, and other details relating to civil engineering technology drawings. Computer-aided-drafting (CAD) is used for drawings. Cross-listed as GEMT 1121. PREREQ: CET 0111/GEMT 1111. S

CET 0122 Intermediate Surveying 5 credits. Study survey of land, traverses and closures, bearings, coordinates, construction surveying and staking. Control for surveys, topography surveying and mapping using calculators and coordinate geometry (COGO) to solve surveying problems. Introduction to data collection. Produce survey drawings with TDS COGO. Cross-listed as GEMT 1122. PREREQ: CET 0112. S

CET 0125 Materials Testing and Specifications II 2 credits. Concrete testing procedures are conducted and concrete specifications are verified. Prepares student for WAQTC concrete qualifications examination. PREREQ: CET 0115. S

CET 0211 Utility Design and Construction 3 credits. Basic study of water and wastewater distribution systems. Includes capacity analysis, pressure pipe analysis and gravity flow in pipe. Studies design and construction criteria for public utility systems. Include simple project design calculations and drafting using engineering software. PREREQ: CET 0120. COREQ: CET 0216 and CET 0217. F

CET 0215 Materials Testing and Specifications III 3 credits. Soils testing procedures are conducted to verify soils specifications, culminating in a soils survey/profile drawing. Radiation and safety training using the nuclear densometer. Field trips to construction sites to collect soil samples for testing. Prepares students for WAQTC embankment and base in-place density qualification examinations. PREREQ: CET 0125. COREQ: CET 0216 and CET 0217. F

CET 0216 Route Survey and Design 6 credits. Study of route surveying; circular, spiral, and parabolic curves as applied to highway design; route locations, plan, and specifications. Plans

will be drawn with plotters using CAD and survey/engineering software. Cross-listed as GEMT 2216. PREREQ: CET 0122/GEMT 1122. F

CET 217 State Plane Coordinates 4 credits. Study of Idaho state plane coordinate system, resections, and radial surveying. Understanding USGS quad maps, magnetic declination, and map projections as they relate to the state plane coordinate system; basic GPS theory and operation in surveying practices. Cross-listed as GEMT 2217. PREREQ: CET 0122/GEMT 1122. F

CET 0220 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 0120. S

CET 0225 Materials Testing and Specifications IV 3 credits. Asphalt testing procedures and asphalt specifications verification. Roadway or subdivision civil engineering project plans are studied. Field trips to test asphalt density at construction paving project sites. Prepares students for WAQTC asphalt qualifications examinations. PREREQ: CET 0215. S

CET 0226 Construction Surveying 6 credits. Intermediate GPS theory and operation in construction surveying. Construction staking procedures and use of data collection roads software. Cross-listed as GEMT 2226. PREREQ: CET 0216/GEMT 2216. S

CET 2227 Land Surveying Practices 4 credits. Advanced study of surveying topics including the Public Lands Survey System, land divisions, property descriptions, records of survey, and corner perpetuation and filing records. Cross-listed as CET 0227. PREREQ: CET 0217/GEMT 2217. S

CET 0296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U or may be letter graded. PREREQ: Permission of instructor. D

CET 0298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

Computer Aided Design Drafting Technology

(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 0101	Drafting Technology Theory I	2 cr
CADD 0102	Drafting Technology Laboratory I	3 cr
CADD 0111	Drafting Technology Theory II	2 cr
CADD 0112	Drafting Technology Laboratory II	3 cr
CADD 0121	Mechanical Drafting Technology Theory I	2 cr
CADD 0122	Mechanical Drafting Technology Laboratory I	3 cr
CADD 0123	Drafting Applied Geometry and Trigonometry	2 cr

CADD 0131	Drafting Technology Theory III	2 cr
CADD 0132	Drafting Technology Laboratory III	3 cr
CADD 0133	Drafting Applied Algebra and Statics	2 cr
CADD 0141	Drafting Technology Theory IV	2 cr
CADD 0142	Drafting Technology Laboratory IV	3 cr
CADD 0145	Drafting Applied Science I	2 cr
CADD 0201	Mechanical Drafting Technology Theory II	2 cr
CADD 0202	Mechanical Drafting Technology Laboratory II	5 cr
CADD 0211	Architectural Design Technology Theory	2 cr
CADD 0212	Architectural Design Technology Laboratory	3 cr
CADD 0215	Drafting Applied Science II	2 cr
CADD 0221	Electrical Drafting Technology Theory	2 cr
CADD 0222	Electrical Drafting Technology Laboratory	5 cr
CADD 0232	Mechanical Design Technology Laboratory	3 cr
CADD 0235	Mechanical Design Technology	4 cr
TGE 0158	Employment Strategies	2 cr

General Education Requirements:

ENGL 1101	English Composition	3 cr
COMM 1101	Principles of Speech	3 cr
		TOTAL: 64 cr

Associate of Applied Science Degree: Computer Aided Design Drafting Technology

Required Courses:

CADD 0101	Drafting Technology Theory I	2 cr
CADD 0102	Drafting Technology Laboratory I	3 cr
CADD 0111	Drafting Technology Theory II	2 cr
CADD 0112	Drafting Technology Laboratory II	3 cr
CADD 0121	Mechanical Drafting Technology Theory I	2 cr
CADD 0122	Mechanical Drafting Technology Laboratory I	3 cr
CADD 0123	Drafting Applied Geometry and Trigonometry	2 cr
CADD 0131	Drafting Technology Theory III	2 cr
CADD 0132	Drafting Technology Laboratory III	3 cr
CADD 0133	Drafting Applied Algebra and Statics	2 cr
CADD 0141	Drafting Technology Theory IV	2 cr
CADD 0142	Drafting Technology Laboratory IV	3 cr
CADD 0145	Drafting Applied Science I	2 cr
CADD 0201	Mechanical Drafting Technology Theory II	2 cr
CADD 0202	Mechanical Drafting Technology Laboratory II	5 cr
CADD 0211	Architectural Design Technology Theory	2 cr
CADD 0212	Architectural Design Technology Laboratory	3 cr
CADD 0215	Drafting Applied Science II	2 cr
CADD 0221	Electrical Drafting Technology Theory	2 cr
CADD 0222	Electrical Drafting Technology Laboratory	5 cr

CADD 0232	Mechanical Design Technology Laboratory	3 cr
CADD 0235	Mechanical Design Technology	4 cr
TGE 0158	Employment Strategies	2 cr

General Education Requirements

ENGL 1101	English Composition	3 cr
COMM 1101	Principles of Speech	3 cr
Goal 3		3 cr
Goal 5		4 cr
One of Goals 6, 7, 9, 10A, 11, or 12		3 cr
TOTAL:		75 cr

CADD Courses

CADD 0101 Drafting Technology Theory I 2 credits. Basic drafting fundamentals and theory. Includes lettering, linework, spatial visualization and multiview drawings. COREQ: CADD 0102. F, S, Su

CADD 0102 Drafting Technology Laboratory I 3 credits. Apply Drafting Technology Theory I using drawing boards, drafting instruments, and CAD system. COREQ: CADD 0101. F, S, Su

CADD 0111 Drafting Technology Theory II 2 credits. Additional drafting fundamentals and theory. Includes sections, auxiliaries and dimensioning. PREREQ: CADD 0101. COREQ: CADD 0112. F, S, Su

CADD 0112 Drafting Technology Laboratory II 3 credits. Apply Drafting Technology Theory II using drawing boards, drafting instruments, and CAD system. PREREQ: CADD 0102. COREQ: CADD 0111. F, S, Su

CADD 0121 Mechanical Drafting Technology Theory I 2 credits. Drafting theory of weldments, gearing, true position dimensioning and axonometric projection. PREREQ: CADD 0111. COREQ: CADD 0122. F, S, Su

CADD 0122 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 0112. COREQ: CADD 0121. F, S, Su

CADD 0123 Drafting Applied Geometry and Trigonometry 2 credits. Geometry and trigonometry. Problem solutions relating to design drafting are emphasized. PREREQ: TGE 0100A or equivalent. F, S, Su

CADD 0131 Drafting Technology Theory III 2 credits. Additional drafting principles and topics, including steel detailing. PREREQ: CADD 0121. COREQ: CADD 0132. F, S, Su

CADD 0132 Drafting Technology Laboratory III 3 credits. Apply Drafting Technology Theory III including steel detailing drawings. PREREQ: CADD 0122. COREQ: CADD 0131. F, S, Su

CADD 0133 Drafting Applied Algebra and Statics 2 credits. Geometry, trigonometry and introduction to statics. Solutions of problems relating to design drafting are emphasized. PREREQ: CADD 0123. F, S, Su

CADD 0141 Drafting Technology Theory IV 3 credits. Descriptive geometry and piping. Solutions to design problems are emphasized, using CAD techniques. PREREQ: CADD 0121. COREQ: CADD 0142. F, S, Su

CADD 0142 Drafting Technology Laboratory IV 3 credits. Apply Drafting Technology Theory IV including solving practical design problems

using graphical techniques and stressing logic, piping, descriptive geometry, multiple projections, and flat pattern layouts. Solutions are presented using CAD procedures. COREQ: CADD 0141. F, S, Su

CADD 0145 Drafting Applied Science I 2 credits. Introduction to surveying including theory of surveying and surveying equipment, field sketches, field data collection, and converting field work into CAD drawings to establish a background for site construction and preparation. PREREQ: CADD 0123. F, S, Su

CADD 0201 Mechanical Drafting Technology Theory II 2 credits. Instruction in drafting theory of working drawings and 3-D modeling. PREREQ: CADD 0121. COREQ: CADD 0202. F, S, Su

CADD 0202 Mechanical Drafting Technology Laboratory II 5 credits. Apply Mechanical Drafting Technology Theory II including working drawings, and 3-D modeling. Emphasis on drawing details, subassemblies, and assemblies using a CAD system. PREREQ: CADD 0122. COREQ: CADD 0201. F, S, Su

CADD 0211 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 0121. COREQ: CADD 2012. F, S, Su

CADD 0212 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 industry standards. PREREQ: CADD 0122. COREQ: CADD 0211. F, S, Su

CADD 0215 Drafting Applied Science II 2 credits. Intermediate Applied Statics and Strengths of Materials. Includes finding the sum of applied forces, moments, reaction, and an introduction to beam and structural analysis. PREREQ: CADD 0133. F, S, Su

CADD 0221 Electrical Drafting Technology Theory 2 credits. Electronic and electrical packaging concepts and standards. PREREQ: CADD 0121. COREQ: CADD 0222. F, S, Su

CADD 0222 Electrical Drafting Technology Laboratory 5 credits. Apply Electrical Drafting Technology Theory. Drafting of complete electrical drawing packages. PREREQ: CADD 0122. COREQ: CADD 0221. F, S, Su

CADD 0232 Mechanical Design Technology Laboratory 3 credits. Apply Mechanical Design Technology Theory including beam design, truss analysis and structural design. PREREQ: CADD 0122. COREQ: CADD 0231. F, S, Su

CADD 0235 Mechanical Design Technology 4 credits. Beam design, truss analysis by use of applied statics, and strengths of materials. Structural design is emphasized. PREREQ: CADD 0121. COREQ: CADD 0232. F, S, Su

CADD 0295 CADD Internship 1-16 credits. Industrial work experience via a cooperative program for selected students. PREREQ: CADD major or permission of coordinator. F, S, Su

CADD 0296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U or may be letter graded. PREREQ: Permission of instructor. D

CADD 0298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

Computer Software Development Technology

(2½ to 4½ Semesters)

Program Coordinator and Master

Instructor: Naas

Instructor: Hardy

One Associate of Applied Science Degree and one Bachelor of Applied Science Degree are available.

The program is accredited by The National Association of Industrial Technology. The primary purpose of the National Association of Industrial Technology accreditation is to provide recognition of 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.

Objective: To develop entry-level skills in computer software applications development.

For a Program Information Packet showing a description of the degree, 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/computersoftware.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. 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:

CSDT 0119	Computer Programming Concepts I	5 cr
CSDT 0120	Computer Programming Concepts II	5 cr
CSDT 0181	Computer and Internet Fundamentals	4 cr
CSDT 0184	Computer Operating Systems	4 cr
CSDT 0202	Browser Scripting Language	5 cr
CSDT 0217	Internet Server Scripting	5 cr
CSDT 0218	Internet Server Scripting Language II	5 cr
CSDT 0220	Internet Programming	5 cr
CSDT 0225	Internet Programming Concepts	5 cr
CSDT 0227	Internet Page Design Languages	5 cr
CSDT 0283	Database Procedural Language	4 cr
CSDT 0286	Database Programming	5 cr
CSDT 0288	Advanced Database Programming	4 cr
CSDT 0289	E-Commerce Systems Analysis and Design	5 cr
TGE 0158	Employment Strategies	2 cr

General Education Requirements:

ENGL 1101	English Composition	3 cr
Goal 2		3 cr
Goal 3		3 cr
Goal 5		4 cr
Goals 6, 7, 9, 10A, 11 and 12		3 cr
		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 program's required curriculum in order to be eligible for a certificate or A.A.S. Degree.

CSDT 0119 Computer Programming Concepts I 5 credits. Write, execute, debug, and document a series of computer programs for a typical business application using a modern computer language such as C++ and using structured and object-oriented programming techniques. Taught as a first programming language. F

CSDT 0120 Computer Programming Concepts II 5 credits. Continuation of CSDT 0119, including arrays, iteration, sorting, classes and functions. F

CSDT 0181 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 0184 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 0202 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 0120 or permission of instructor. Su

CSDT 0217 Internet Server Scripting 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 1120 or permission of instructor. S

CSDT 0218 Internet Server Scripting Language II 5 credits. Continuation of CSDT 0217. Linking web forms to databases, and creating classes using database objects to access Microsoft and Oracle databases. PREREQ: CSDT 0217 or permission of instructor. S

CSDT 0220 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 0225 and CSDT 0287 or permission of instructor. S

CSDT 0225 Internet Programming Concepts 5 credits. Explore issues involved in the design, development, and deployment of Internet based applications. PREREQ: CSDT 0218 and CSDT 0286 or permission of instructor. S

CSDT 0227 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 0283 Database Procedural Language 4 credits. Use of a current, widely-used database procedural language such as Transact SQL on Microsoft SQL Server or PLSQL on Oracle, to write stored procedures, functions, and triggers to implement business rules for a database. PREREQ: CSDT 0286. F

CSDT 0286 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 0288 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 0286 or permission of instructor. S

CSDT 0289 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. Continue the study of XML data transfer and web services. S

CSDT 0296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U or may be letter graded. PREREQ: Permission of instructor. D

CSDT 0297 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 0298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

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 0261	CNC Introduction to Theory	2 cr
MACH 0270	CNC Machining Practice I	4 cr
MACH 0271	CNC Programming Theory I	2 cr
MACH 0272	CNC Math I	2 cr
MACH 0281	CNC Programming Theory II	2 cr
MACH 0290	CNC Machining Practice II	6 cr
		TOTAL: 18 cr

Advanced Technical Certificate: CNC Operator

8 Sessions

Required Courses:

MACH 0110	Engine Lathe Practice I	5 cr
MACH 0111	Engine Lathe Theory I	2 cr
MACH 0112	Machine Math I	2 cr
MACH 0120	Milling Practice I	5 cr
MACH 0121	Milling Theory I	2 cr
MACH 0123	Interpreting Blueprints	2 cr
MACH 0130	Engine Lathe Practice II	5 cr
MACH 0136	Applied Machining Geometry and Trigonometry	2 cr
MACH 0140	Milling Practice II	6 cr
MACH 0230	CNC Mill Operations	8 cr
MACH 0240	CNC Lathe Operations	8 cr
MACH 0250	Advanced Machine Practice I	7 cr
MACH 0260	Advanced Machine Practice II	7 cr
MACH 0261	CNC Introduction To Theory	2 cr
TGE 0151	Technical Writing I	2 cr
COMM 1101	Principles of Speech	3 cr
TGE 0158	Employment Strategies	2 cr
		TOTAL: 70 cr

Advanced Technical Certificate: Machining Technology

9 Sessions

Required Courses:

The following required courses must be completed with a 2.0 GPA:

MACH 0110	Engine Lathe Practice I	5 cr
MACH 0111	Engine Lathe Theory I	2 cr
MACH 0112	Machine Math I	2 cr
MACH 0120	Milling Practice I	5 cr
MACH 0121	Milling Theory I	2 cr
MACH 0123	Interpreting Blueprints	2 cr
MACH 0130	Engine Lathe Practice II	5 cr
MACH 0136	Applied Machining Geometry and Trigonometry	2 cr
MACH 0140	Milling Practice II	6 cr
MACH 0220	CAD/CAM I Applications	3 cr
MACH 0221	CAD/CAM I Theory	3 cr
MACH 0225	Interpreting Technical Data	2 cr
MACH 0250	Advanced Machine Practice I	7 cr
MACH 0260	Advanced Machine Practice II	7 cr
MACH 0261	CNC Introduction To Theory	2 cr
MACH 0270	CNC Machining Practice I	4 cr
MACH 0271	CNC Programming Theory I	2 cr
MACH 0272	CNC Math I	2 cr
MACH 0275	CAD/CAM II	2 cr
MACH 0281	CNC Programming Theory II	2 cr
MACH 0290	CNC Machining Practice II	6 cr
TGE 0158	Employment Strategies	2 cr

General Education Requirements

ENGL 1101	English Composition	3 cr
COMM 1101	Principles of Speech	3 cr
		TOTAL: 81 cr

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 0110	Engine Lathe Practice I	5 cr
MACH 0111	Engine Lathe Theory I	2 cr
MACH 0112	Machine Math I	2 cr
MACH 0120	Milling Practice I	5 cr
MACH 0121	Milling Theory I	2 cr
MACH 0123	Interpreting Blueprints	2 cr
MACH 0130	Engine Lathe Practice II	5 cr
MACH 0136	Applied Machining Geometry and Trigonometry	2 cr
MACH 0140	Milling Practice II	6 cr
MACH 0220	CAD/CAM I Applications	3 cr
MACH 0221	CAD/CAM I Theory	3 cr
MACH 0225	Interpreting Technical Data	2 cr
MACH 0250	Advanced Machine Practice I	7 cr
MACH 0260	Advanced Machine Practice II	7 cr
MACH 0261	CNC Introduction To Theory	2 cr
MACH 0270	CNC Machining Practice I	4 cr

MACH 0271	CNC Programming Theory I	2 cr
MACH 0272	CNC Math I	2 cr
MACH 0275	CAD/CAM II	2 cr
MACH 0281	CNC Programming Theory II	2 cr
MACH 0290	CNC Machining Practice II	6 cr
TGE 0158	Employment Strategies	2 cr

General Education Requirements:

ENGL 1101	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: 91 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 0110 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 0111. F, S

MACH 0111 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 0110. F, S

MACH 0112 Machine Math I 2 credits. Basic math principles of fractional and decimal numbers as related to machine shop measuring, blueprint reading, taper turning, threading and cutting speeds and feeds. Course covers basic algebra. F, S

MACH 0120 Milling Practice I 5 credits. Basic milling cutting operations of end milling, fly cutting, drilling and boring performed on the vertical mill. Also includes surface grinder, and benchworking practices as scheduling permits. COREQ: MACH 0121. F, S

MACH 0121 Milling Theory I 2 credits. A basic theory course dealing with milling machine terminology, uses, functions, tooling, and concepts. Emphasis is placed on study habits and class participation. COREQ: MACH 0120. F, S

MACH 0123 Interpreting Blueprints 2 credits. Identifies blueprint information through the interpretation of lines, symbols and numbers as shown on two- and three-view orthographic drawings and geometric dimensioning and tolerance drawings. F, S

MACH 0130 Engine Lathe Practice II 5 credits. A continuation of MACH 110 machining more advanced lathe projects. PREREQ: MACH 0110. F, S

MACH 0136 Applied Machining Geometry and Trigonometry 2 credits. More advanced math course using geometry and trigonometry required when solving threading, tapering, chords, arcs, areas, and milling speed/feed problems in a machine shop environment. PREREQ: MATH 1144. F, S

MACH 0140 Milling Practice II 6 credits. A continuation of MACH 120 on horizontal and vertical milling machines, performed to closer tolerances and time limits. Also includes grinding, layout and drilling operations as scheduling permits. PREREQ: MACH 0120. F, S

MACH 0220 CAD and CAM I Applications 3 credits. A hands-on lab utilizing computers for programming CNC machining centers for production purposes. COREQ: MACH 0221. Su

MACH 0221 CAD and CAM I Theory 3 credits. Introductory theory course in the utilization of CAD/CAM systems. PREREQ: Permission of program coordinator. Su

MACH 0225 Interpreting Technical Data 2 credits. Study of tables, charts, formulas, thread calculations, and related information as required of a machinist working in industry. PREREQ: MACH 0135 and MACH 0136. Su

MACH 0230 CNC Mill Operations 8 credits. Set-up and operation of computer numerically controlled (CNC) vertical milling centers. Build jigs, set tooling, and use pre-written programs to produce CNC parts. PREREQ: MACH 0261. F, S

MACH 0240 CNC Lathe Operations 8 credits. Set-up and operation of computer numerically controlled lathes. Set the tooling and use pre-written programs to produce CNC parts. PREREQ: MACH 0261. F, S

MACH 0250 Advanced Machine Practice I 7 credits. Advanced machining practices on engine lathes, grinders, drill inspection, and metal layout. PREREQ: MACH 0125, MACH 0131, MACH 0136, and MACH 0140. F, S

MACH 0260 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 0250. F, S

MACH 0261 CNC Introduction to Theory 2 credits. An introductory course in basic programming of computer controlled machine tools. Emphasis is theory only. PREREQ: Permission of program coordinator.

MACH 0270 CNC Machining Practice I 4 credits. An introductory course in basic computer skills, programming, set-up and operations of computer numerically controlled machine tools. PREREQ: Recommendation of program coordinator. COREQ: MACH 0271. F, S

MACH 0271 CNC Programming Theory I 2 credits. This course prepares the student in the programming of computer numerically controlled machine tools. Includes computer application of absolute/incremental, EIA/ISO, and conversational address systems. PREREQ: Program coordinator recommendation based upon demonstrated proficiency on conventional machine tools. COREQ: MACH 0270. F, S

MACH 0272 CNC Math I 2 credits. An advanced math course covering the basic use of geometric/trigonometric principles for identifying and solving all types of machine shop triangulation problems for the purpose of manufacturing parts on conventional and CNC machines. PREREQ: MACH 0132. F, S

MACH 0275 CAD and CAM II 2 credits. Programming CNC machines utilizing CAD/CAM systems. Course familiarizes the student with applications, theory, and operation of CAD/CAM. PREREQ: MACH 0220 and MACH 0221. F, S

MACH 0281 CNC Programming Theory II 2 credits. An advanced course in the programming, set-up and operations of computer numerically controlled machine tools and accessory devices. MACH 0281 is a continuation of MACH 0271. PREREQ: MACH 0271. COREQ: MACH 0290. F, S

MACH 0290 CNC Machining Practice II 6 credits. An advanced course in the programming, set-up and operations of the computer numerically controlled machine tools. MACH 0290 is an advanced continuation of MACH 0270. PREREQ: MACH 0270. COREQ: MACH 0281. F, S

MACH 0296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U or may be letter graded. PREREQ: Permission of instructor. D

MACH 0298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

Cosmetology

(3½ Semesters and/or ½ Session)

Coordinator and Advanced Instructor:

Fitch

Advanced Instructors: Jackson, Wilde

Instructor: Fuger

Two certificates are available. The program also offers Cosmetology Instructor training to industry professionals, which provides

them with the educational prerequisites for state licensure as instructors in cosmetology and nail technology.

This program will provide students with the skills and knowledge to perform a variety of beauty services which cover all phases of the beauty culture such as manicuring, shampooing, hair styling, make-up application, temporary and permanent hair waving, hair straightening, bleaching and tinting, and various skin and scalp treatments. Graduate Cosmetologists will also have strong human relations skills and the ability to communicate with people.

For a Program Information Packet showing descriptions of each option, course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to <http://www.isu.edu/ctech/cosmetology.shtml>.

This program requires students to achieve certain grades in order to advance each semester. Specific information is 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 0150	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 0116	Introduction Principles and Practice of Cosmetology	8 cr
COSM 0117	Beginning Principles and Practice of Cosmetology	8 cr
COSM 0126	Fundamental Principles and Practice of Cosmetology I	8 cr
COSM 0127	Fundamental Principles and Practice of Cosmetology II	8 cr

COSM 0156	Fundamental Principles and Practice of Cosmetology III	2 cr
COSM 0157	Fundamental Principles and Practice of Cosmetology IV	6 cr
COSM 0236	Advanced Principles and Practice of Cosmetology I	8 cr
COSM 0237	Advanced Principles and Practice of Cosmetology II	8 cr
		TOTAL: 56 cr

COSM Courses

COSM 0116 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's skills 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 be integrated. F, S

COSM 0117 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 0116. F, S

COSM 0126 Fundamental Principles and Practice of Cosmetology I 8 credits. Continuation of concepts and practices taught in COSM 0117. 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 0117. F, S

COSM 0127 Fundamental Principles and Practice of Cosmetology II 8 credits. Continuation of COSM 0126. 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 0126. F, S

COSM 0150 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 0156 Fundamental Principles and Practice of Cosmetology III 2 credits. Continuation of COSM 0127. PREREQ: COSM 0127. Su

COSM 0157 Fundamental Principles and Practice of Cosmetology IV 6 credits. Continuation of COSM 0156. PREREQ: COSM 156. Su

COSM 0236 Advanced Principles and Practices of Cosmetology I 8 credits. Continuation of COSM 0157. Study of advanced techniques and concepts of cosmetology, including salon development, the salon business, and state laws and regulations. PREREQ: COSM 0157. F, S

COSM 0237 Advanced Principles and Practice of Cosmetology II 8 credits. Continuation of COSM 0236. State board preparation and advanced techniques and concepts of cosmetology. PREREQ: COSM 0236. F, S

COSM 0238 Cosmetology Instructor Training 14 credits. Candidates assume instructional and management responsibilities in supervised settings, including lesson planning, audio visual aid preparation, theory instruction, practical demonstration, testing and evaluation, and clinic floor supervision. PREREQ: Current license as a cosmetologist or nail technologist; twelve credit hours of general education from Goals 1, 2, and 12; two years of work experience as a licensed cosmetologist; and permission of program coordinator. Graded S/U. D

COSM 0279 Seminar 1-16 credits. This course is designed as a review for re-examination and/or refresher course for cosmetologists from Idaho or other states in preparation for the Idaho State Board of Cosmetology Examination. Graded S/U. S

COSM 0296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U or may be letter graded. PREREQ: Permission of instructor. D

COSM 0298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

Culinary Arts Technology

(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/ctech/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.

Technical Certificate: Culinary Arts

(2½ Semesters)

Required Courses:

CUAR 0110	Culinary Foundations I	3 cr
CUAR 0111	Culinary Skill Development I	7 cr
CUAR 0115	Applied Sanitation	2 cr
CUAR 0117	Dining Room, Banquet, and Catering Operations	2 cr
CUAR 0119	Culinary Weights and Measures	1 cr
CUAR 0120	Culinary Foundations II	3 cr
CUAR 0121	Culinary Skill Development II	7 cr
CUAR 0130	Culinary Foundations III	2 cr
CUAR 0131	Culinary Skill Development III	3 cr
CUAR 0135	Menu Mechanics	2 cr
CUAR 0137	Nutrition in Food Service Operations	2 cr
CUAR 0214	Beverage Operations	3 cr
CUAR 0224	Food Service Operations	3 cr
ENGL 1101	English Composition	3 cr
		TOTAL: 43 cr

Associate of Applied Science Degree: Culinary Arts

(4 ½ Semesters)

Required Courses:

CUAR 0110	Culinary Foundations I	3 cr
CUAR 0111	Culinary Skill Development I	7 cr
CUAR 0115	Applied Sanitation	2 cr
CUAR 0117	Dining Room, Banquet, and Catering Operations	2 cr
CUAR 0119	Culinary Weights and Measures	1 cr
CUAR 0120	Culinary Foundations II	3 cr
CUAR 0121	Culinary Skill Development II	7 cr
CUAR 0130	Culinary Foundations III	2 cr
CUAR 0131	Culinary Skill Development III	3 cr
CUAR 0135	Menu Mechanics	2 cr
CUAR 0137	Nutrition in Food Service Operations	2 cr
CUAR 0211	Entrée and Sautéing Preparation	3 cr
CUAR 0212	Advanced <i>Garde Manger</i> and Appetizers	3 cr
CUAR 0214	Beverage Operations	3 cr
CUAR 0221	Culinary Management	3 cr
CUAR 0223	Advanced Baking and Desserts	3 cr
CUAR 0224	Food Service Operations	3 cr
CUAR 0250	Culinary Internship	3 cr
BI 0120	Concepts of Accounting	3 cr
TGE 158	Employment Strategies	2 cr

3 credits from the following courses to fulfill the course requirements in computers:

CIS 1101	Introduction to Computers	3 cr
CSDT 0181	Computer Fundamentals	3 cr
BI 0170	Introduction to Computer Systems	3 cr

General Education Requirements:

ENGL 1101	English Composition	3 cr
Goal 2		3 cr
Goal 3		3 cr
Goal 12		3 cr
Goal 2 - 11		4 cr
TOTAL:		78 cr

CUAR Courses

CUAR 0110 Culinary Foundations I 3 credits. Introduction to the food service industry through lectures and demonstrations, including principles of cooking and presentation, tools and equipment, knife skills, flavors and flavoring, stocks and sauces, soups, vegetables, potatoes, grains, pasta, and dairy products. COREQ: CUAR 0111. F, S

CUAR 0111 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, entree preparation, garde manger, and short order cookery. COREQ: CUAR 0110. F, S

CUAR 0115 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 0117 Dining Room, Banquet, & Catering Operations 2 credits. This course demonstrates methods of managing service in an *a la carte* restaurant and how to manage banquet and catering functions. F

CUAR 0119 Culinary Weights and Measures 1 credit. Hands-on application of basic math principles that are used in food service operations. F

CUAR 0120 Culinary Foundations II 3 credits. Builds on concepts taught in CUAR 0110. Through lecture and demonstration, introduces principles of meat cookery, fish and shellfish, eggs, vegetarian cooking, salad and salad dressing, fruits, sandwiches, charcuterie, hors d'oeuvre and canapés. COREQ: CUAR 0121. F, S

CUAR 0121 Culinary Skill Development II 7 credits. Continues to advance the student's baking and food preparation skills through the different station rotations. COREQ: CUAR 0120. F, S

CUAR 0130 Culinary Foundations III 2 credits. Builds on concepts taught in CUAR 0120. Through lectures and demonstrations, introduces principles of the bake shop, including quick breads, yeast breads, pies, pastries, cookies, custards, cakes, and frostings. COREQ: CUAR 0131. F, S, Su

CUAR 0131 Culinary Skill Development III 3 credits. Continues to advance the student's baking and food preparation skills through the different station rotations. COREQ: CUAR 0130. Su

CUAR 0135 Menu Mechanics 2 credits. This course prepares students with the techniques and knowledge to develop menus that are compatible with various types of food operations. All aspects of menu layout and development are studied. Su

CUAR 0137 Nutrition in Food Service Operations 2 credits. This course addresses the fundamental nutritional concepts for food service professionals. Su

CUAR 0198 Industry Practicum 1-8 credits. In this course students may be directed to work in one or more sites in the culinary or related industry to pick up additional job experience. PREREQ: Permission of instructor.

CUAR 0211 Entree and Sauteing Preparation 3 credits. Advanced hands-on experience in all facets of cookery and sauce preparation. Emphasis on presentation, center of plate and advanced food preparations as well as cooking methods. F

CUAR 0212 Advanced Garde-Manger and Appetizers 3 credits. Advanced hands-on preparations of salads, cold sauces, appetizers, and garnishes and their applications. Emphasis on color, texture, and temperature in preparation and presentation. F

CUAR 0214 Beverage Operations 3 credits. Practical experience and approaches in beverage operations and service. Service and storage of beverages in food service operations. F

CUAR 0221 Culinary Management 3 credits. The principles of management and supervision within a food service kitchen are studied. The importance of menu planning, cost control, purchasing, catering, and management functions is covered. S

CUAR 0223 Advanced Baking and Desserts 3 credits. Advanced hands-on preparation of baked goods, pastries and desserts will be given to the student in both theory and practice. S

CUAR 0224 Food Service Operations 3 credits. Students learn principles and practices to increase profits by maximizing service, efficiency, productivity, technology, and how to build business through effective marketing strategies. S

CUAR 0250 Career Internship 3 credits. This course is designed to provide students the opportunity to gain practical experience. Training plans are utilized to ensure maximum training opportunities for the student. F, S, Su

CUAR 0296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U or may be letter graded. PREREQ: Permission of instructor. D

CUAR 0298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

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:**

DLT 0111	Oral Anatomy and Tooth Morphology	4 cr
DLT 0112L	Dental Anatomy Laboratory	4 cr
DLT 0113	Occlusal Concepts	2 cr
DLT 0114L	Occlusal Laboratory Practice	3 cr
DLT 0115	Applied Dental Chemistry and Physics	2 cr
DLT 0131	Crown and Bridge Concepts	3 cr
DLT 0132L	Crown and Bridge Techniques	4 cr
DLT 0133	Complete Denture Principles	2 cr
DLT 0134L	Complete Denture Techniques	3 cr
DLT 0135	Dental Materials	3 cr
DLT 0151	Removable Partial Denture Concepts	3 cr
DLT 0152L	Removable Partial Denture Techniques	3 cr

DLT 0153	Concepts of Orthodontic/ Pedodontic Treatment Appliances	3 cr
DLT 0154L	Orthodontic/Pedodontic Treatment Appliance Techniques	4 cr
DLT 0155	Professional and Industrial Relations	3 cr
DLT 0263	Removable Prosthodontics Concepts	2 cr
DLT 0264L	Removable Prosthodontics Techniques	3 cr
DLT 0267	Dental Laboratory Orientation	1 cr
DLT 0271	Porcelain Fused to Metal Substructure Concepts	3 cr
DLT 0272L	Porcelain Fused to Metal Substructure Techniques	4 cr
DLT 0273	Fixed Ceramic Restoration, Porcelain Concepts	3 cr
DLT 0274L	Fixed Ceramic Restoration, Porcelain Technique	4 cr
DLT 0285	Dental Lab Clinical Practice OR	5 cr
DLT 0286	Dental Lab Specialty Practice	5 cr
	SUBTOTAL:	71 cr

General Education Requirements:

ENGL 1101	English Composition	3 cr
Goal 2		3 cr
Goal 3		3 cr
Goals 6, 7, 9, 10A, 11 or 12		3 cr
Goals 2-12		4 cr

DLT Courses

All listed prerequisite courses must be completed with a grade of "C" or better.

DLT 0111 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. COREQ: DLT 0112L. F

DLT 0112L Dental Anatomy Laboratory 4 credits. Waxing anatomically correct individual tooth patterns on models with removable dies. COREQ: DLT 0111. F

DLT 0113 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 0114L Occlusal Laboratory Practice 3 credit. Waxing anatomically correct tooth patterns on casts with removable dies, mounted on semi-adjustable articulators, so patterns interdigitate and occlude. F

DLT 0115 Applied Dental Chemistry and Physics 2 credits. 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 0131 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 0111 and DLT 0113. S

DLT 0132L Crown and Bridge Techniques 4 credits. Introduction to various techniques in model development, waxing, spruing, investing, casting, finishing and polishing crowns and bridges. PREREQ: DLT 0112L and DLT 0114L. S

DLT 0133 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 0111 and DLT 0113. S

DLT 0134L Complete Denture Techniques 3 credits. Procedures used in the fabrication of complete dentures. PREREQ: DLT 0112L and DLT 0114L. S

DLT 0135 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 0115. S

DLT 0151 Removable Partial Denture Concepts 3 credits. 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. PREREQ: DLT 0131, DLT 0133 and DLT 0135. Su

DLT 0152L Removable Partial Denture Techniques 4 credits. Lab class that requires professional quality model work, using a surveyor to detect undercuts, duplication of surveyed models, waxing the partial pattern and casting the framework, investing and casting procedures using chrome cobalt alloys, finishing and polishing frameworks. PREREQ: DLT 0132L and DLT 0134L. Su

DLT 0153 Concepts of Orthodontic/Pedodontic Treatment Appliances 3 credits. Introduces techniques for fabricating removable wrought and orthodontic/pedodontic appliances. Topics include wrought wire clasps, arch wires, orthodontic clasps, orthodontic acrylic, soldering, fabrication, and repair of orthodontic restorations. PREREQ: DLT 0131, DLT 0133 and DLT 0135. F

DLT 0154L Orthodontic/Pedodontic Treatment Appliance Techniques 4 credits. Techniques for fabricating removable wrought and orthodontic/pedodontic appliances, including wrought wire clasps, arch wires, orthodontic clasps, orthodontic acrylic, soldering, fabrication, and repair of orthodontic restorations. Upon completion, students should be able to fabricate removable wrought-orthodontic appliances following the dentist's prescription. PREREQ: DLT 0132L and DLT 0134L. F

DLT 0155 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 0131, DLT 0132, DLT 0134 and DLT 0135. S

DLT 0263 Removable Prosthodontics Concepts 2 credits. This theory class is a continuation of DLT 0133 and 0151. Topics covered deal with different types of removable prosthodontic appliances, complete denture to partial denture, plastic vs. porcelain teeth, overdentures, and repairs among other topics. PREREQ: Completion of DLT 0133, DLT 0151, DLT 0153, and DLT 0155 with a "C" or better. F

DLT 0264L Removable Prosthodontic Techniques 3 credits. Different types of cases, tooth arrangements, immediate dentures, repairs and relines. PREREQ: "C" or better in DLT 0152L, DLT 0154L, and DLT 0155. F

DLT 0267 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: "C" or better in DLT 0111 through DLT 0155. F

DLT 0271 Porcelain Fused to Metal Substructure Concepts 3 credits. Requirements of porcelain fused to metal substructure design for single copings, bridge construction, and combination crown and bridge-porcelain veneered prosthetics. PREREQ: "C" or better in DLT 0131, DLT 0135, and DLT 0155. F

DLT 0272L Porcelain Fused To Metal Substructure Techniques 4 credits. Practical hands-on experience of fabricating porcelain fused to metal (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 274L. PREREQ: "C" or better in DLT 132L, DLT 135, and DLT 155. S

DLT 0273 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: "C" or better in DLT 0135 and DLT 0272. S

DLT 0274L Fixed Ceramic Restoration, Porcelain Technique 4 credits. Porcelain phase of porcelain fused to metal restoration and all-porcelain (no metal) jacket crowns, veneers, inlays and onlays. PREREQ: "C" or better in DLT 0135 and DLT 0272L. S

DLT 0285 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.** PREREQ: completion of DLT 0263, DLT 0264, DLT 0267, DLT 0271, DLT 0272, DLT 0273, and DLT 0274 with a "C" or better. Su

**Important! The student must be enrolled and participating in DLT 0285 either in a clinical practice environment or as an employee of a dental lab. If the student is not fulfilling the requirement of DLT 0285 (240 hours) or not enrolled in DLT 0286, a grade of "F" will be given to the respective student.*

DLT 0286 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 0285 with the instructor's approval. PREREQ: "C" or better in DLT 0263, DLT 0264, DLT 0273 and DLT 0274 and permission of the instructor. Su

DLT 0296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U or may be letter graded. PREREQ: Permission of instructor. D

DLT 0298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

Diesel/On-Site Power Generation Technology

(3 to 5 Semesters)

Program Coordinator and Instructor:
Bullock

Instructors: Dixon, Holmes, Schwoppe

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/ctech/dieseltechnology.shtml>

Advanced Technical Certificate: Diesel Technology

(3 Semesters)

Required Courses:

DESL 0101	Introduction to Mechanics	2 cr
DESL 0107	Fundamentals of Electricity	6 cr
DESL 0109	Car Air Conditioning	1 cr
DESL 0113	Diesel Fuel Systems	6 cr
DESL 0115	Diesel Hydraulics	2 cr
DESL 0116	Power Shift Transmissions	3 cr
DESL 0117	Heavy Duty Brake Systems	2 cr
DESL 0125	Heavy Duty Power Trains	7 cr
DESL 0182	Gas Engines	2 cr
DESL 0184	Diesel Engines	5 cr
DESL 0231	Live Work I	8 cr
	OR	
DESL 0251	Internship	8 cr
TGE 0151	Technical Writing I	2 cr
TGE 0152	Technical Writing II	2 cr
TGE 0158	Employment Strategies	2 cr

General Education Requirement:

Goal 2	3 cr
TOTAL:	53 cr

Elective Courses:

DESL 0298	Special Topics	1-16 cr
MACH 0105	Machining Practices	1-4 cr
WELD 0105	Welding	1-4 cr

Advanced Technical Certificate: On-Site Power Generation Technology

(4 Semesters)

Required Courses:

DESL 0101	Introduction to Mechanics	2 cr
DESL 0107	Fundamentals of Electricity	6 cr
DESL 0109	Car Air Conditioning	1 cr
DESL 0113	Diesel Fuel Systems	6 cr
DESL 0115	Diesel Hydraulics	2 cr
DESL 0116	Power Shift Transmissions	3 cr
DESL 0117	Heavy Duty Brake Systems	2 cr
DESL 0125	Heavy Duty Power Trains	7 cr
DESL 0182	Gas Engines	2 cr
DESL 0184	Diesel Engines	5 cr
DESL 0241	On-Site Power Generation I	8 cr
DESL 0243	On-Site Power Generation II	8 cr
DESL 0251	Internship	8 cr
	OR	
DESL 0231	Live Work I	8 cr
TGE 0151	Technical Writing I	2 cr
TGE 0152	Technical Writing II	2 cr
TGE 0158	Employment Strategies	2 cr

General Education Requirement:

Goal 2	3 cr
TOTAL:	69 cr

Elective Courses:

DESL 0298	Special Topics	1-16 cr
MACH 0105	Machining Practices	1-4 cr
WELD 0105	Welding	1-4 cr

Associate of Applied Science Degree: Diesel Technology

(4 Semesters)

Required Courses:

DESL 0101	Introduction to Mechanics	2 cr
DESL 0107	Fundamentals of Electricity	6 cr
DESL 0109	Car Air Conditioning	1 cr
DESL 0113	Diesel Fuel Systems	6 cr
DESL 0115	Diesel Hydraulics	2 cr
DESL 0116	Power Shift Transmissions	3 cr
DESL 0117	Heavy Duty Brake Systems	2 cr
DESL 0125	Heavy Duty Power Trains	7 cr
DESL 0182	Gas Engines	2 cr
DESL 0184	Diesel Engines	5 cr
DESL 0231	Live Work I	8 cr
	OR	
DESL 0251	Internship	8 cr

General Education Requirements:

ENGL 1101	English Composition	3 cr
Goal 2	3 cr	
Goal 3	3 cr	
Goals 6, 7, 9, 10A, 11 or 12	3 cr	
Goal 2-12	4 cr	
TOTAL:	60 cr	

Associate of Applied Science Degree: On-Site Power Generation Technology

(5 Semesters)

Required Courses:

DESL 0101	Introduction to Mechanics	2 cr
DESL 0107	Fundamentals of Electricity	6 cr
DESL 0109	Car Air Conditioning	1 cr
DESL 0113	Diesel Fuel Systems	6 cr
DESL 0115	Diesel Hydraulics	2 cr
DESL 0116	Power Shift Transmissions	3 cr
DESL 0117	Heavy Duty Brake Systems	2 cr
DESL 0125	Heavy Duty Power Trains	7 cr
DESL 0182	Gas Engines	2 cr
DESL 0184	Diesel Engines	5 cr
DESL 0241	On-Site Power Generation I	8 cr
DESL 0243	On-Site Power Generation II	8 cr
DESL 0251	Internship	8 cr
	OR	
DESL 0231	Live Work I	8 cr

General Education Requirements:

ENGL 1101	English Composition	3 cr
Goal 2	3 cr	
Goal 3	3 cr	
Goals 6, 7, 9, 10A, 11 or 12	3 cr	
Goal 2-12	4 cr	
TOTAL:	76 cr	

DESL Courses

DESL 0101 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. F, S

DESL 0107 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. F, S

DESL 0109 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. F, S

DESL0113 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. F, S

DESL0115 Diesel Hydraulics 2 credits. Theory and operation of hydraulics. Lab practice covering testing, troubleshooting techniques, and repair will be covered. F, S

DESL 0116 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. F, S

DESL 0117 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. F, S

DESL 0125 Heavy Duty Power Trains 7 credits. Theory and lab practice for diagnosing, troubleshooting, and repairing of farm, construction, and truck power train systems. F, S, Su

DESL 0182 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. F, S, Su

DESL 0184 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 0182 or comparable. F, S, Su

DESL 0231 Live Work I 8 credits. 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. F, S

DESL 0241 On-Site Power Generation I 8 credits. Principles, diagnosis, repair, and troubleshooting on operable on-site power generation equipment. F, S

DESL 0243 On-Site Power Generation II 8 credits. A continuation of DESL 0241. F, S

DESL 0251 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. F, S, Su

DESL 0296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills

within the program area under the guidance of an instructor. May be repeated. Graded S/U or may be letter graded. PREREQ: Permission of instructor. F, S, Su

DESL 0298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. F, S

Early Childhood Care and Education Associate Degree Program

(2 to 6 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 Early Childhood Care and Education 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 families and the program.

All courses in the major and ENGL (English) 1101 and 1102, when required, must be completed with a grade of 'C' or better. Students must maintain a 2.0 GPA in all courses to graduate.

For a Program Information Packet showing descriptions of each option, course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to <http://www.isu.edu/ctech/childddevelopment.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:

CHLD 0160	Professionalism in Family Child Care	1 cr
CHLD 0161	Child Health and Safety	1 cr
CHLD 0162	Environments in Family Child Care	1 cr
CHLD 0164	Early Childhood Social and Emotional Development	2 cr
CHLD 0166	Guidance in Early Childhood Education	1 cr
CHLD 0168	Early Childhood Physical and Cognitive Development	2 cr
CHLD 0170	Fostering Creativity	1 cr
CHLD 0172	Curriculum Implementation	2 cr
CHLD 0174	Parent Involvement and Program Management	1 cr
		TOTAL: 12 cr

Students who have earned a Post-Secondary Technical Certificate (12 credits) need the following course to build on these credits toward the Technical Certificate (32 credits):

CHLD 0113	Child Care and Education Practicum	20 cr*
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*Students interested in this upgrade should contact program faculty prior to registering for this course.

Technical Certificate: Early Childhood Care and Education

(2 Semesters Daytime or 4 semesters Evening)

Required Courses:

CHLD 0105	Introduction to Early Childhood Care and Education	3 cr
CHLD 0110	Child Health, Safety, Nutrition, and Environments	4 cr
CHLD 0120	Social and Emotional Development in Early Childhood Care and Education	6 cr
CHLD 0125	Guidance In Early Childhood Care and Education	3 cr
CHLD 0130	Physical and Cognitive Development in Early Childhood Care and Education	6 cr
CHLD 0135	Fostering Creativity	3 cr
CHLD 0141	Family-Centered Care and Program Management in Early Childhood Care and Education	3 cr
CHLD 0151	Curriculum Planning and Implementation in Early Childhood Care and Education	4 cr
ENGL 1101	English Composition	3 cr
		TOTAL: 35 cr

Associate of Applied Science Degree: Early Childhood Care and Education

(4 Semesters)

Required Courses:

BI 0170	Introduction to Computers	3 cr
CHLD 0105	Introduction to Early Childhood Care and Education	3 cr
CHLD 0110	Child Health, Safety, Nutrition, and Environments	4 cr
CHLD 0120	Social and Emotional Development in Early Childhood Care and Education	6 cr
CHLD 0125	Guidance In Early Childhood Care and Education	3 cr
CHLD 0130	Physical and Cognitive Development in Early Childhood Care and Education	6 cr
CHLD 0135	Fostering Creativity	3 cr
CHLD 0141	Family-Centered Care and Program Management in Early Childhood Care and Education	3 cr
CHLD 0151	Curriculum Planning and Implementation in Early Childhood Care and Education	4 cr
CHLD 0210	Advanced Topics in Early Childhood Care and Education	3 cr
CHLD 0215	Children with Exceptionalities	2 cr
CHLD 0220	Administration and Program Management in Early Childhood Care and Education	3 cr
CHLD 0250	Capstone Project in Early Childhood Care and Education	1 cr

OPTIONAL:

CHLD 0298	Special Topics in Early Childhood Care and Education	1-3 cr
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General Education Requirements:

ENGL 1101	English Composition	3 cr
ENGL 1102	Critical Reading and Writing (Goal 1)	3 cr
Goal 2		3 cr
Goal 3		3 cr
BIOL 1100,1100L	Concepts Biology: Human Concerns, and Lab (Goal 4)	4 cr
PSYC 1101	Introduction to General Psychology (Goal 12)	3 cr
SOC 1101	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

CHLD0105 Introduction to Early Childhood Care and Education 3 credits. Introduces early childhood care and education (ECCE) and the role of the teacher. Orientation to the Early Childhood Associate Degree Program, including professionalism in ECCE, an overview of child growth and development, and how to observe children. Includes classroom lecture and practicum. F

CHLD 0110 Child Health, Safety, Nutrition, and Environment 4 credits. Promoting/maintaining health and well-being of children, including health and nutritional guidelines, common childhood illnesses, maintaining safe and healthy learning environments, indoor/outdoor environmental design, schedules and routines,

recognition and reporting of abuse and neglect, and licensing regulations. Includes classroom lecture and practicum. F

CHLD 0113 Curriculum Practicum in Early Childhood Care and Education 4-20 credits. Practical experience with planning, implementing and evaluating curriculum that enhances children's development in all domains. Upon completion, students who have completed the PSTC will meet requirements for entry into the second year of the A.A.S. Includes credit for documented work experience after obtaining a CDA. May be repeated for up to 20 credits. PREREQ: Permission of instructor. D

CHLD 0120 Social and Emotional Development in Early Childhood Care and Education 6 credits. Emphasizes stages of social and emotional development, encouraging self-esteem, cultural awareness, and effective communication skills. Introduces observation and assessment of social and emotional skills; describes strategies to promote healthy social and emotional development. Includes classroom lecture and practicum. F, S

CHLD 0125 Guidance In Early Childhood Care and Education 3 credits. Principles and techniques for providing developmentally appropriate guidance. Emphasis is placed on communication skills, strategies, and observation to understand the underlying causes of behavior. Students will demonstrate appropriate interaction with children, families, and promote conflict resolution, self-control, and self-motivation. Includes classroom lecture and practicum. F, S

CHLD 0130 Physical and Cognitive Development in Early Childhood Care and Education 6 credits. Introduction to children's physical and cognitive development, including discovery experiences in math and science, block play, social studies, verbal and written language acquisition, and foundations in gross and fine motor development, brain development, multiple intelligences and learning styles. Includes classroom lectures and practicum. PREREQ: ENGL 1101. F, S

CHLD 0135 Fostering Creativity 3 credits. Creative learning environments, planning and implementing developmentally appropriate experiences, and developing appropriate teaching materials for the classroom. Emphasizes creative activities for children in art, music, movement and physical skills, and dramatics. Includes classroom lecture and practicum. F, S

CHLD 0141 Family-Centered Care and Program Management in Early Childhood Care and Education 3 credits. Relationships between families and programs. Emphasis on requisite skills and benefits for successfully establishing, supporting, and maintaining respectful, collaborative relationships between today's diverse families, centers/school, and community resources. Strategies to ensure effective program operation are introduced. Includes classroom lecture and practicum. S

CHLD 0151 Curriculum Planning and Implementation in Early Childhood Care and Education 4 credits. Philosophy, curriculum, scheduling, observation and assessment, and instructional planning and evaluation. Students will assess children and curriculum; plan for

daily, weekly, and long-range instruction; and design environments with appropriate equipment and supplies. Includes classroom lecture and practicum. S

CHLD 0160 Professionalism in Family Child Care 1 credit. An introductory course including orientation to the Child Development program; stages of child development. Introduction to professional organizations, networks, community resources, and advocacy. Also including methods of observation and use of observations to plan curriculum. Includes classroom lectures and individualized instruction. D

CHLD 0161 Child Health and Safety in Family Child Care 1 credit. Safe and healthy environments for young children. Health and safety practices in early care and education. Students will be taught how to assess and ensure safe indoor and outdoor areas. Includes mental health and personal safety, classroom lectures, and individualized instruction. D

CHLD 0162 Environments in Family Child Care 1 credit. Students will be taught how to assess, develop and implement stimulating learning environments for infants, toddlers, and preschool children. Includes classroom lectures and individualized instruction. D

CHLD 0164 Early Childhood Social and Emotional Development in Family Child Care 2 credits. Introduction to children's social development, social awareness, and concept of self. This course focuses on development of personal self-esteem in caregivers as well as children. Includes classroom lectures and individualized instruction. D

CHLD 0166 Guidance in Early Childhood Education in Family Child Care 1 credit. Positive guidance techniques. Learning includes supporting social and emotional development by helping children to learn and practice appropriate and acceptable behaviors as individuals and as a group. Includes classroom lectures and individualized instruction. D

CHLD 0168 Early Childhood Physical and Cognitive Development in Family Child Care 2 credits. Introduction to children's physical and cognitive development. This course focuses on providing an environment supportive of children's acquisition of motor and cognitive competence through activities and opportunities that encourage curiosity, development levels and learning styles of children. Includes classroom lectures and individualized instruction. D

CHLD 0170 Fostering Creativity in Family Child Care 1 credit. An introductory course which includes the 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 0172 Curriculum Implementation in Family Child Care 2 credits. This course combines skills learned in previous courses into responsibility for planning and implementa-

tion in the classroom. This course focuses on applying theory into a practical setting. Includes classroom lectures and individual instruction. D

CHLD 0174 Parent Involvement and Program Management in Family Child Care 1 credit. This course introduces students to family education, program management and professionalism in early childhood education. Topics studied in depth include: parenting styles and strategies, family communication, discipline, stress management, functional and dysfunctional families, family structures, team building, time management, job interviews, resume development, professional image, and professional development. Includes classroom lectures and individualized instruction. D

CHLD 0210 Advanced Topics in Early Childhood Care and Education 3 credits. Elaborates on developmentally appropriate practice in early childhood education and care and research into other current topics, as related to student needs and interest. A focus on anti-bias curriculum and children's literature is also included. Includes classroom lecture and practicum. PREREQ: ENGL 1101. PREREQ OR COREQ: ENGL 1102, BI 0170, and COMM 1101. F

CHLD 0215 Children with Exceptionalities 2 credits. Introduces working with children with exceptionalities. Emphasis on the characteristics of children and strategies for adapting the learning environment. Students will recognize atypical development, make appropriate referrals, and collaborate with families and professionals to plan, implement, and evaluate inclusion strategies. Includes classroom lecture and practicum. PREREQ: ENGL 1101. PREREQ OR COREQ: ENGL 1102, BI 0170, and COMM 1101. F

CHLD 0220 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 0210 or CHLD 0215, and ENGL 1101. COREQ: COMM 1101, ENGL 1102, and BI 0170. S

CHLD 0250 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 0296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U or may be letter graded. PREREQ: Permission of instructor. D

CHLD 0298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

Electrical Technician

(2 Semesters)

Coordinator/Instructor: Averett

One Technical Certificate is 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/student-services/elty.pdf>.

This program requires students to achieve certain grades in order to advance each semester. Specific information is available in the program's student handbook.

Technical Certificate: Electrical Technician

Required Courses:

ELTY 0131	Electrical Theory I	4 cr
ELTY 0132	Electrical Theory II	5 cr
ELTY 0133	Applied Mathematics I	4 cr
ELTY 0134	Applied Mathematics II	5 cr
ELTY 0135	Electrical Laboratory I	4 cr
ELTY 0136	Electrical Laboratory II	5 cr
ELTY 0137	Electrical Code I	3 cr
ELTY 0138	Electrical Code II	3 cr
ELTY 0139	Print Reading	2 cr
ELTY 0140	Motor Control Theory	2 cr
TGE 0151	Technical Writing	2 cr
TGE 0158	Employment Strategies	2 cr
		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 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.

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 0131 Electrical Theory I 4 credits. Topics discussed are electron theory, sources of electromotive force, what is electric current, effect of electricity, magnetism 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 0132 Electrical Theory II 5 credits. Topics presented are alternating current, A-C characteristics, inductance, mutual inductance, capacitance and the capacitor, capacitive A-C circuits, RL circuits, RC circuits, and RLC circuits, D-C generators, A-C generators, D-C motors, D-C starters, D-C motor controllers, A-C motors, types of A-C motors, motor control. PREREQ: ELTY 0131. S

ELTY 0133 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 0134 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 0133. S

ELTY 0135 Electrical Laboratory I 4 credits. Course topics are shop safety; hand tools; house, commercial, and industrial wiring; voltage sources and measurements. F

ELTY 0136 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 0135. S

ELTY 0137 Electrical Code I 3 credits. Topics include an introduction; definitions; requirements for electrical installation in residential, commercial and industrial buildings. F

ELTY 0138 Electrical Code II 3 credits. Course is a continuation study of National Electrical Code. PREREQ: ELTY 0137. S

ELTY 0139 Print Reading 2 credits. Introduction to basic print reading, materials and specifications, and reading prints for residential and commercial structures. F

ELTY 0140 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 valves, latching relays, and motor control centers. Course of study includes using the computer to draw motor control circuits. PREREQ: ELTY 0131 and ELTY 0135. S

Electro-Mechanical Technology

(4½ Semesters)

Program Coordinator and Instructor:

Beaty

Instructors: Buffaloe, 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 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 will have skills needed to work in such areas as semiconductor 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 0250, 0252, 0254, 0255, 0256 and 0257 is required.

Advanced Technical Certificate: Electromechanical Technology

(4½ Semesters)

Required Courses (see Electronics Core section for required Core courses):

INST 0231	Electronics for Instrumentation and Automation	2 cr
INST 0232	Introduction to Fiber and Electro-Optics	2 cr
INST 0233	Fundamentals of Logic Control	2 cr
INST 0234	Applications of Process Control Devices	2 cr
INST 0235	Introduction to Electrical Power Systems	2 cr
INST 0281	Electrical Automation Theory	8 cr
INST 0282	Electrical Automation Lab	5 cr
ELMT 0250	Fundamentals of Mechanical Systems	1 cr
ELMT 0252	Fundamentals of Measurement	1 cr
ELMT 0254	Foundations and Principles of Robotic Operation	2 cr
ELMT 0255	Electromechanical Systems Lab	3 cr
ELMT 0256	Digital and Analog Devices	2 cr
ELMT 0257	Measurement and Controls Laboratory	3 cr
TGE 0158	Employment Strategies	2 cr

General Education Requirement:

ENGL 1101	English Composition	3 cr
		TOTAL: 77 cr

Associate of Applied Science Degree: Electromechanical Technology

(4½ Semesters)

Required Courses (see Electronics Core section for required Core courses):

INST 0231	Electronics for Instrumentation and Automation	2 cr
INST 0232	Introduction to Fiber and Electro-Optics	2 cr
INST 0233	Fundamentals of Logic Control	2 cr
INST 0234	Applications of Process Control Devices	2 cr
INST 0235	Introduction to Electrical Power Systems	2 cr
ELTR 0271	Introduction to Lab Simulation	2 cr
INST 0281	Electrical Automation Theory	8 cr
INST 0282	Electrical Automation Lab	5 cr
ELMT 0250	Fundamentals of Mechanical Systems	1 cr
ELMT 0252	Fundamentals of Measurement	1 cr
ELMT 0254	Foundations and Principles of Robotic Operation	2 cr
ELMT 0255	Electromechanical Systems Lab	3 cr

ELMT 0256	Digital and Analog Devices	2 cr
ELMT 0257	Measurement and Controls Laboratory	3 cr
TGE 0158	Job Search	2 cr

General Education Requirements:

ENGL 1101	English Composition	3 cr
Goal 3		3 cr
One of Goals 6, 7, 9, 10A, 11, or 12		3 cr
		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) 0141, Applied Mathematics I, and ELTR 0142, Applied Mathematics II, a student may enroll directly into an academic math course which requires MATH 1147 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 0250 Fundamentals of Mechanical Systems 1 credit. Topics include machine components, brief introduction to mechanical vibrations and kinematics 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 0252 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 0254 Foundations and Principles of Robotic Operation 2 credits. Mechanics of robotic manipulator/control systems, programming of robot actions, application and troubleshooting techniques of solid-state devices used in logic controlled systems. Principles of industrial measurement/control, robotics, machine language, and A-D/D-A conversion. PREREQ: Electronics Core Courses. S

ELMT 0255 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 0256 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 0257 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

ELMT0263 EMDigital 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

ELMT0264 EMDigital 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 0271 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, electromagnetic devices, mechanical devices and systems such as control, servo, robotic and electromechanical. S

ELMT 0272 EM Analog Devices and Systems Laboratory 6 credits. This is a practical application of the theory class, ELMT 0271. 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 0290 Internship 1-8 credits. On-the-job placement providing work experience for students pursuing careers in Electromechanical Technology. Permission of the instructor is required.

Electronics Department

Chair: Rasmussen

Associate Chair and Assistant Professor:
Norton

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.

- 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) 0141, Applied Mathematics I, and ELTR 0142, Applied Mathematics II, a student may enroll directly into an academic math course which requires MATH 1147 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 Advanced

Instructor: S. Larson

Master Instructor: Womack

Senior Instructor: Fitzen

Advanced Instructor: Shepherd

Instructors: Maclure, Shroll

The Electronics Core is required for entrance into Electronics Systems Technology, Electronic Wireless/Telecom Technology, Laser/Electro-optics Technology, Electromechanical Technology and Instrumentation and Automation Technology.

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 theorem, 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:

ELTR 0141	Applied Mathematics I	4 cr
ELTR 0142	Applied Mathematics II	4 cr
ELTR 0153	Electronic Theory	5 cr
ELTR 0154	Electron Control Devices Theory A	5 cr
ELTR 0155	Electronic Laboratory	5 cr
ELTR 0156	Electron Control Devices Laboratory A	5 cr

General Education Requirements:

COMM 1101 Principles of Speech 3 cr
 PHYS 1101, 1101LElements of Physics, and Lab 4 cr
Upon successful completion of ELTR 0141, Applied Mathematics I, and ELTR 0142, Applied Mathematics II, a student may enroll directly into an academic math course which requires MATH 1147 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 0121 through 0127) constitutes equivalency to ELTR 0141, ELTR 0153, and ELTR 0155. Completion of the last four courses (ELTR 0133 through 0136) constitutes equivalency to ELTR 0142, 0154 and 0156.

ELTR 0121	Introduction to Electronics Theory	1 cr
ELTR 0122	Introduction to Electronics Lab 1	1 cr
ELTR 0123	DC Electronics Principles Theory	2 cr
ELTR 0124	DC Electronics Principles Lab 2	2 cr
ELTR 0125	AC Electronics Principles Theory	4 cr
ELTR 0126	AC Electronics Principles Lab 2	2 cr
ELTR 0127	Electronic Principles Capstone	2-8 cr
ELTR 0133	Principles of Control Devices Theory	3 cr
ELTR 0134	Principles of Control Devices Lab	3 cr
ELTR 0135	Fundamentals of Digital Devices Theory	2 cr
ELTR 0136	Fundamentals of Digital Devices Lab	2 cr

ELTR Courses

ELTR 0121 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 0122 Introduction to Electronics Lab 1 credit. Experiments in DC electronic circuits covered in ELTR 0121, using electronic components, equipment, and tools. F, S

ELTR 0123 DC Electronics Principles Theory 2 credits. Fundamentals of DC electronics—voltage and current, meters, network theorems, and related algebraic principles. F, S

ELTR 0124 DC Electronics Principles Lab 2 credits. Experiments in DC electronic circuits analyzing voltage and current, meters, and network theorems. F, S

ELTR 0125 AC Electronics Principles Theory 4 credits. Electronics AC fundamentals—magnetism, inductors, capacitors, AC-DC network analysis, and related algebraic principles. F, S

ELTR 0126 AC Electronics Principles Lab 2 credits. Experiments in basic AC electronic circuits topics covered in ELTR 0125, using electronic components, equipment, and tools to analyze current and voltage. F, S

ELTR 0127 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 0130 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 0131 Fundamental Electricity and Electronic Lab 5 credits. Experiments involving subjects covered in ELTR 0130. Students will construct experimental circuits upon which tests and measurements will be made to attain specified objectives. S

ELTR 0133 Principles of Control Devices Theory 3 credits. Comprehensive study of semiconductors, power supplies, transistor amplifiers, operational amplifiers, and related algebraic principles. F, S

ELTR 0134 Principles of Control Devices Lab 3 credits. Experiments involving semiconductors, power supplies, transistor amplifiers, and operational amplifiers. F, S

ELTR 0135 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 0136 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 0140 Directed Study AC-DC/LCR 8 credits. Condensed coverage of basic electronics theory and laboratory and associated mathematics. Accelerated equivalent of ELTR 0141, ELTR 0143, and ELTR 0145 for those who have prior knowledge of basic electronics. F, S

ELTR 0141 Applied Mathematics I 4 credits. Basic math as it applies to Electrical Theory; includes algebraic and trigonometric topics as they relate to DC and AC (sine wave) circuit analysis. F, S

ELTR 0142 Applied Mathematics II 4 credits. Continuation of ELTR 0141. Selected algebraic and trigonometric topics as related to DC and AC (sine wave) circuit analysis with special emphasis on trigonometric solution and vector analysis. F, S

ELTR 0153 Electronic Theory 5 credits. Fundamentals of DC and AC electronics: safety, soldering, electrical units, Ohm's Law, series and parallel resistive circuits, voltage and current, meters, network theorems, magnetism, inductors, capacitors, AC-DC network analysis, and power supplies. COREQ: ELTR 0141 and ELTR 0155. F, S

ELTR 0154 Electronic Control Devices Theory 5 credits. Comprehensive study of semiconductors, power supplies, transistor

amplifiers, and operational amplifiers. Digital fundamentals including logic gates, Boolean algebra, combination logic circuits, digital registers, counters, and timing circuits. PREREQ: ELTR 0141, ELTR 0153, and ELTR 0155. COREQ: ELTR 0156 and ELTR 0142. F, S

ELTR 0155 Electronic Lab 5 credits. Experiments involving subjects covered in ELTR 1053. Students will construct, measure, and analyze circuits. COREQ: ELTR 0153. F, S

ELTR 0156 Electronic Control Devices Lab 5 credits. Experiments involving subjects covered in ELTR 0154. Students will construct, measure, and analyze circuits. PREREQ: ELTR 0141, ELTR 0153, and ELTR 0155. COREQ: ELTR 0154. F, S

ELTR 0256 Internship 1-8 credits. On-the-job placement providing work experience for persons pursuing careers in electronics technology. PREREQ: Permission of instructor. D

ELTR 0257 Directed Studies 1-8 credits. Individual work under faculty guidance. D

ELTR 0271 Introduction to Lab Simulation Software 2 credits. Introduction to lab simulation software environments used to build data acquisition and instrument control applications. 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 upon 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 0271	Introduction to Lab Simulation	2 cr
EWTT 0165	Digital Modulation Schemes for Electronic Communications	5 cr
EWTT 0166	Digital Modulation Schemes for Electronic Communications Lab	5 cr
EWTT 0211	Radio Frequency/Telecom Systems I	7 cr
EWTT 0212	Radio Frequency/Telecom Systems I	7 cr
EWTT 0221	Radio Frequency/Telecom Lab II	6 cr
EWTT 0222	Radio/Frequency/Telecom Lab III	3 cr
EWTT 0223	Radio Frequency/Telecom Lab III	3 cr
TGE 0158	Employment Strategies	2 cr

General Education Requirement:

ENGL 1101	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 0271	Introduction to Lab Simulation	2 cr
EWTT 0165	Digital Modulation Schemes for Electronic Communications	5 cr
EWTT 0166	Digital Modulation Schemes for Electronic Communications Lab	5 cr
EWTT 0211	Radio Frequency/Telecom Systems I	7 cr

EWTT 0212	Radio Frequency/Telecom Systems I	7 cr
EWTT 0221	Radio Frequency/Telecom Lab II	6 cr
EWTT 0222	Radio/Frequency/Telecom Lab III	3 cr
EWTT 0223	Radio Frequency/Telecom Lab III	3 cr
TGE 0158	Employment Strategies	2 cr

General Education Requirements:

ENGL 1101	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) 0141, Applied Mathematics I, and ELTR 0142, Applied Mathematics II, a student may enroll directly into an academic math course which requires MATH 1147 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 0165 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 0166 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 0165. **COREQ:** EWTT 0165. Su

EWTT 0211 Radio Frequency and Telecommunications Systems I 7 credits. Addresses the specific needs of individuals for theoretical study of radio frequency/telecommunications circuits, RF wideband and narrow band amplifiers, electronic switching/programming and digital data communications systems that utilizes laboratory information from EWTT 0212. 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 0212. F

EWTT 0212 Radio Frequency and Telecommunications I Laboratory 7 credits. Practical application of radio frequency/telecommunications circuits, RF wideband and narrow band amplifiers, electronic switching/programming and digital data communications that utilizes theory studied in EWTT 0211. 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 0211. F

EWTT 0221 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 0222. RF/telecommunication test equipment, mobile telephone, carrier fundamentals, repeater systems, fiber optic principles, microwave, antennas and transmission line system concepts are emphasized. **COREQ:** EWTT 0222. S

EWTT 0222 Radio Frequency/Telecommunications Laboratory II 3 credits. Practical application of radio frequency/telecommunications utilizing EWTT 0221 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 0221. S

EWTT 0223 Radio Frequency/Telecommunications Laboratory III 3 credits. Continuation of EWTT 0222, second 8 weeks of semester, for those not enrolled in EWTT 0289 Coop. S

EWTT 0289 Coop 1-4 credits. Students pursue on-the-job training in the electronic information systems industry which satisfies competencies in

lieu of radio frequency/telecommunications lab. A Coop agreement must be signed by all parties involved, i.e. student, instructor, employer.

EWTT 0290 Internship 1-8 credits. On-the-job placement providing work experience for students pursuing careers in radio frequency and/or telecommunications technology. PREREQ: Permission of instructor.

EWTT0294 Directed Studies 1-8 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.

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)

EMGT 0101	Incident Command System Basic	3 cr
EMGT 0110	Leadership and Influence	3 cr
EMGT 0121	Principles of Emergency Management	3 cr
EMGT 0122	Emergency Resources Management	3 cr
EMGT 0221	Emergency Management Operations	3 cr
EMGT 0222	Emergency Planning	3 cr
EMGT 0223	Mitigation for Emergency Managers	3 cr
EMGT 0224	Disaster Response and Recovery	3 cr
EMGT 0225	Emergency Management Exercise Design	3 cr

General Education Courses (38 credits for Goals 1-12)

ENGL 1101	English Composition	3 cr
ENGL 1102	Critical Reading and Writing	3 cr
COMM 1101	Principles of Speech	3 cr
MATH 1130	Finite Mathematics	3 cr
	OR	
MATH 1153	Introduction to Probability	3 cr
BIOL 1100, 1100L	Concepts Biology: Human Concerns, and Lab	4 cr
CHEM 1100	Architecture of Matter	4 cr
Goal 6 (Fine Arts)		3 cr
	OR	
Goal 7 (Literature)		3 cr
PHIL 1103	Introduction to Ethics	3 cr
HIST 1118	History and Culture	3 cr
	OR	
AMST 2200	Introduction to American Studies	3 cr
ECON 1100*	Economic Issues	3 cr
	AND	

POLS 1101*	Introduction to American Government	3 cr
PSYC 1101	Introduction to Psychology	3 cr
	OR	
SOC 1101	Introduction to Sociology	3 cr
	OR	
SOC 1102	Social Problems	3 cr

*Only one of these courses is required to satisfy goal 11, but both courses are required in this program.

Emergency Management Courses

EMGT 1101 Incident Command System Basic 3 credits. Overview of the Incident Command System (ICS) and its application as a component of the National Incident Management System (NIMS). Discussions and practical exercises cover the history and basic features of ICS; application of incident management to incidents involving natural and man-made disasters, including hazardous materials; leadership concepts; and incident action planning. D

EMGT 1110 Leadership and Influence 3 credits. Students will determine how to assess differences in personal values and interpersonal influence styles, and to apply situational leadership behaviors in emergency management. Topics include leadership and influence, conflict management, use of power, and group dynamics. D

EMGT 1121 Principles of Emergency Management 3 credits. Theories, principles, and approaches to emergency management. Gain knowledge and skills for managing emergencies in order to lessen their impacts on society. Discuss the philosophy of comprehensive emergency management, including mitigation, preparedness, response, and recovery. D

EMGT 1122 Emergency Resources Management 3 credits. Resource management functions, to include hazardous materials response resources, within the overall framework of an Emergency Operations Center. Performance-based learning activities applicable to the field of emergency management. PREREQ: EMGT 1121. D

EMGT 2221 Emergency Management Operations 3 credits. Examine the terminology, players, and management philosophy of the federal Incident Management System. Emergency Operations Center setup, activation, operation, termination, hazardous materials, staffing, training, and briefings. PREREQ: EMGT 1121. PREREQ OR COREQ: Goal 4 and Goal 5. D

EMGT 2222 Emergency Planning 3 credits. Develop an Emergency Operations Plan using a comprehensive, risk-based, and all-hazard approach to ensure that local jurisdictions are prepared to respond effectively following an emergency event to include hazardous materials. PREREQ: EMGT 1121. PREREQ OR COREQ: Goal 4 and Goal 5. D

EMGT 2223 Mitigation for Emergency Managers 3 credits. Programs to reduce losses from future disasters, emergencies, hazardous materials and other events caused by natural and man-made hazards. Principles and practices of hazard mitigation at the local through federal lev-

els of governance, emphasizing the importance of avoiding or preventing future and recurring losses. PREREQ: EMGT 1121. PREREQ OR COREQ: GOAL 4 and GOAL 5. D

EMGT 2224 Disaster Response and Recovery 3 credits. Principles that promote effective disaster response operations and management. Examine the nature of disasters, the context of response operations in the United States, and the roles and responsibilities of various emergency management related actors to include hazardous material. Emphasis on the Incident Command System and its interaction with the Emergency Operations Center. PREREQ: EMGT 1121. PREREQ OR COREQ: Goal 4 and Goal 5. D

EMGT 2225 Emergency Management Exercise Design 3 credits. Develop and conduct disaster exercises to test a community's Emergency Operations Plan and operational response capability to include hazardous materials. Emphasis on design, conduct and evaluation of exercises with the goal of developing, implementing, and managing a comprehensive disaster exercise program. PREREQ: EMGT 1121. D

EMGT 2296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U or may be letter graded. PREREQ: Permission of instructor. D

EMGT 2298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

Energy Systems Engineering Technology

4 or 4½ Semesters

Coordinator: Beaty

Instructors: Fort, Herbert

Four Associate of Applied Science degrees and four Bachelor of Applied Science degrees are available.

In response to a growing need for Engineering Technicians in the energy sector, the College of Technology at Idaho State University has established the Energy Systems Technology and Education Center (ESTEC) on the Idaho State University campus in Pocatello, Idaho.

ESTEC offers a unique approach to educating students by providing the specific knowledge and skills needed in electrical generation. The skills requirements have been developed in partnership with energy utilities and vendors to assure that program

graduates enter the workforce with the precise skills required by industry. Students learn through traditional classroom experience as well as through extensive laboratory exercises. Electrical generation technologies addressed include nuclear, coal, gas, and renewable technologies such as wind, solar thermal energy, solar photovoltaic, geothermal, biomass, and hydro.

ESTEC is a public/private partnership between Idaho State University, Idaho National Laboratory, and Partners for Prosperity. Curriculum and laboratory resources were developed with external funding from the US Department of Labor and the National Science Foundation.

ESTEC currently offers four Associate of Applied Science degrees that integrate the education and training required for graduates to maintain existing power plants as well as to install and test components in newly constructed facilities. The programs include:

- Energy Systems Electrical Engineering Technology
- Energy Systems Instrumentation and Control Engineering Technology
- Energy Systems Mechanical Engineering Technology
- Energy Systems Wind Engineering Technology

Program Objectives:

To prepare students for employment as Engineering Technicians meeting the skills and competencies required by the existing and growing electrical generation sector.

Employers include public utilities, independent energy generation companies, renewable energy producers, energy service companies, power generation equipment manufacturers, installers and constructors.

Graduates will have hands-on experience setting up and troubleshooting a variety of power generation components and systems, through knowledge of various types of electrical power generation methods and an understanding of industry health and safety practices.

Note: For all Energy Systems Technology programs, a student who has successfully completed ELTR 0141 and 0142, Applied Mathematics I and II, may enroll directly into an academic math course which requires MATH 1147 as a prerequisite, and will receive five credits that apply toward the 128 required for a bachelor's degree.

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 in each program 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 advisor-approved methods. The student will then be allowed to repeat the course at the next available program opening.

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.

These programs require students to achieve a 2.0 GPA in departmental courses in order to advance each semester. Specific information is available in the program's student handbook.

Acceptance into ESTEC programs is based upon available openings and other factors such as grade point average and attendance.

Students must register concurrently for the lab course associated with each theory course.

Associate of Applied Science Degree: Energy Systems Electrical Engineering Technology

(4 Semesters)

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.

Required Courses

ELTR 0141	Applied Mathematics I	4 cr
ELTR 0142	Applied Mathematics II	4 cr
ELTR 0153	Electronic Theory	5 cr

ELTR 0154	Electronic Control Devices Theory	5 cr
ELTR 0155	Electronic Laboratory	5 cr
ELTR 0156	Electronic Control Devices Laboratory	5 cr
ESET 0100	Engineering Technology Orientation	1 cr
ESET 0101, 0101L	Electrical Circuits I, and Lab	10 cr
ESET 0102, 0102L	Electrical Circuits II, and Lab	8 cr
ESET 0203	Fundamentals of Electrical Generation	2 cr
ESET 0212	Electrical Systems Documentation and Standards	2 cr
ESET 0292	Electrical Engineering Technology I	7 cr
ESET 0292L	Electrical Engineering Technology I Lab	5 cr
ESET 0293	Electrical Engineering Technology II	5 cr
ESET 0293L	Electrical Engineering Technology II Lab	4 cr
TGE 0158	Employment Strategies	2 cr
TGE 0257	Ethical Issues in Technology	1 cr

General Education Requirements

ENGL 1101	English Composition	3 cr
COMM 1101	Principles of Speech (Goal 2)	3 cr
MATH 1153*	Introduction to Statistics (Goal 3)	3 cr
PHYS 1101, 1101L	Elements of Physics, and Lab (Goal 4)	4 cr
Goal 6, 7, 9, 10A, 11, or 12		3 cr
	Total:	91 cr

*MATH 1170 may be substituted for MATH 1153.

Associate of Applied Science Degree: Energy Systems Instrumentation and Controls Engineering Technology

(4½ Semesters)

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.

Required Courses:

ELTR 0141	Applied Mathematics I	4 cr
ELTR 0142	Applied Mathematics II	4 cr
ELTR 0153	Electronic Theory	5 cr
ELTR 0154	Electronic Control Devices Theory	5 cr
ELTR 0155	Electronic Laboratory	5 cr
ELTR 0156	Electronic Control Devices Laboratory	5 cr
ESET 0200	Applications of Electronic, Electrical, and Process Control Fundamentals and Safety	6 cr
ESET 0220	Thermal Cycles and Heat Transfer	2 cr
ESET 0221	Boiler, Reactor and Turbine Principles	2 cr
ESET 0290	Energy Systems Theory I	8 cr
ESET 0290L	Energy System Laboratory I	5 cr
ESET 0291	Energy System Theory II	8 cr

ESET 0291L	Energy Systems Laboratory II	4 cr
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General Education Requirements:

ENGL 1101	English Composition	3 cr
COMM 1101	Principles of Speech (Goal 2)	3 cr
Goal 3		3 cr
PHYS 1101, 1101L	Elements of Physics, and Lab	4 cr
One of Goals 6, 7, 9, 10A, 11 or 12		3 cr
	TOTAL:	79 cr

Associate of Applied Science Degree: Energy Systems Mechanical Engineering Technology

4 Semesters

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.

Required Courses:

ESET 0120, 0120L	Introduction to Energy Systems, and Lab	3 cr
ESET 0121, 0121L	Basic Electricity and Electronics, and Lab	8 cr
ESET 0122, 0122L	Electrical System and Motor Control Theory, and Lab	3 cr
ESET 0123, 0123L	Mechanical Power Transmission, and Lab	7 cr
ESET 0124	Mechanical Systems and Machine Design	2 cr
ELTR 0141	Applied Mathematics I	4 cr
ELTR 0142	Applied Mathematics II	4 cr
ESET 0240, 0240L	Pumps, and Pump Applications Laboratory	7 cr
ESET 0241, 0241L	Valves, and Valve Application Laboratory	6 cr
ESET 0242	Process Measurement for Mechanical Engineering	2 cr
ESET 0243, 0243L	Fluid and Pneumatic Power and Lab	5 cr
ESET 0244	Rotating Equipment Maintenance	4 cr
ESET 0244L	Machine Alignment	3 cr
ESET 0245	Fundamentals of Heat Exchangers	2 cr
ESET 0246	Metals and Metallurgy	2 cr
ESET 0298	Independent Study	1-8 cr
MATH 1153*	Introduction to Statistics	3 cr
TGE 0158	Employment Strategies	2 cr

General Education Requirements

ENGL 1101	English Composition	3 cr
COMM 1101	Principles of Speech	3 cr
PHYS 1101, 1101L	Elements of Physics, and Lab	4 cr
Goal 6, 7, 9, 10A, 11, or 12		3 cr
	Total	81-88 cr

*MATH 1170 may be substituted for MATH 1153.

Associate of Applied Science Degree: Energy Systems Wind Engineering Technology

(4 semesters)

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.

Required Courses:

ESET 0121, 0121L	Basic Electricity and Electronics, and Lab	8 cr
ESET 0150, 0150L	Introduction to Wind Energy Systems, and Lab	3 cr
ESET 0122, 0122L	Electrical System and Motor Control Theory, and Lab	2 cr
ESET 0123, 0123L	Mechanical Power Transmission, and Lab	7 cr
ELTR 0141	Applied Mathematics I	4 cr
ELTR 0142	Applied Mathematics II	4 cr
ESET 0212	Electrical Systems Documentation and Standards	2 cr
ESET 0231, 0231L	Microcontrollers, and Lab	3 cr
ESET 0232, 0232L	Electrical Machines, and Lab	6 cr
ESET 0233, 0233L	Electrical Power System	6 cr
ESET 0240, 0240L	Pumps, and Pump Applications Lab	7 cr
ESET 0243, 0243L	Fluid and Pneumatic Power and Lab	5 cr
ESET 0247, 0247L	Wind Energy Control Systems, and Lab	3 cr
ESET 0298	Independent Study	1-8 cr
TGE 0158	Employment Strategies	2 cr
MATH 1153*	Introduction to Statistics	3 cr

General Education Requirements

ENGL 1101	English Composition	3 cr
COMM 1101	Principles of Speech	3 cr
PHYS 1101, 1101L	Elements of Physics, and Lab	4 cr
Goal 6, 7, 9, 10A, 11, or 12		3 cr
	Total	80-88 cr

*MATH 1170 may be substituted for MATH 1153.

Energy Systems Engineering Technology Courses

ESET 0100 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 0101 Electrical Circuits I 5 credits. Includes measurements and calculation of current, voltage, resistance and power in series, parallel and combination circuits with DC and AC power sources. Voltage and current in resistive-

capacitive (R-C) and resistive-inductive (R-L) circuits during switch transitions, AC power circuits including reactance and transformation. Voltage and current in non-resonant and resonant AC circuits and filters. F, S

ESET 0101L 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

ESET 0102 Electrical Circuits II 4 credits. Continuation of electrical circuit study introducing the fundamentals of semiconductors, amplifier theory, digital logic and logical devices. S

ESET 0102L Electrical Circuits Laboratory 4 credits. Laboratory applications and experiments in troubleshooting of semiconductor devices and circuits, digital logic and logic device application. S

ESET 0120 Introduction to Energy Systems 2 credits. Basic terminology and functions of power generation processes, equipment, and material. Introduction to Rankin, Carnot, and Brayton cycles and principles of heat transfer and fluid flow. COREQ: ESET 120L. F

ESET 0120L Introduction to Energy Systems Laboratory 1 credit. Laboratory exercises in the maintenance and function of selected power plant process equipment, primary process equipment, and their sub-components. COREQ: ESET 0120. F

ESET 0121 Basic Electricity and Electronics 4 credits. Fundamental principles of electricity, Ohm's law, Kirchoff's laws, and circuit analysis applied to DC and AC circuits. COREQ: ESET 0121L. F

ESET 0121L Basic Electricity and Electronics Laboratory 4 credits. Basic principles of electrical measurement and testing of DC and AC circuits. COREQ: ESET 0121. F

ESET 0122 Electrical Systems and Motor Control Theory 2 credits. Introduction to electrical system distribution and basic motor control including two- and three-wire control using a variety of devices and motor magnetic controllers. Control relays, time relays, solenoid valves, latching relays, and motor control centers. PREREQ: ESET 0121 and ESET 0121L or permission of instructor. COREQ: ESET 0122L. S

ESET 0122L Electrical Systems and Motor Control Theory Laboratory 1 credit. Applications of electrical systems and motor controls. PREREQ: ESET 0121 and ESET 0121L or permission of instructor. COREQ: ESET 0122. S

ESET 0123 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 0121 and ESET 0121L or permission of instructor. COREQ: ESET 0123L. S

ESET 0123L Mechanical Power Transmission Laboratory 4 credits. The application of bearings, belt and mechanical drives, chain and chain drives, couplings, clutches, gears, and fluids in the transmission of power used in the industrial processes. PREREQ: ESET 0121 and ESET 0121L or permission of instructor. COREQ: ESET 0123. S

ESET 0124 Mechanical Systems and Machine Design 2 credits. Design considerations for machine elements used in mechanisms and machines, including advanced strength of materials; material selection; shaft design; selection of gear, chain, and belt drives; design and selection of bearings; design of brakes and clutches; and characteristics and selection of electric motors. PREREQ: ESET 0122. S

ESET 0150 Introduction to Wind Energy Systems 2 credits. Investigate how wind power works, and its reliability, economics, and environmental implications. Discussion includes turbine types, their development, and their current status. The operating experiences and economic status of the industry will be evaluated. Students will be expected to carry out research and present reports on selected turbines. COREQ: ESET 0150L. F

ESET 0150L 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 0150. F

ESET 0200 Applications of Electronic, Electrical, and Power Systems Control Fundamentals and Safety 6 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. F

ESET 0201 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 0202 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 0203 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 0204 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 0205 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 0206 Health and Safety in Power Generation 1 credit. Regulatory and practical considerations of occupational health and safety associated with working with power generation systems. PREREQ: Electronics Core courses or permission of instructor. Su

ESET 0210 Principles of Power Generating Systems 2 credits. Transmission lines, generator and transformer characteristics, and fault detection and correction. Emphasis on circuit performance addressing voltage regulation, power factor, and protection devices. Lecture/Laboratory. PREREQ: Electronics Core courses or permission of instructor. F

ESET 0211 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 0212 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 0213 Motors, Generators and Industrial Electrical Systems 2 credits. The construction, design aspects and theory of operation of DC, single and poly-phase motors, variable frequency motor control, electrical switch-boards and electrical distribution systems. PREREQ: Electronics Core courses or permission of instructor. F

ESET 0214 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 0215 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 0216 Sensors and Control Device Laboratory 1 credit. Laboratory applications of sensors (including photoelectric and proximity types), relay and timer circuits, and application of automation devices. PREREQ: Electronics Core courses or permission of instructor. F

ESET 0217 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 0218 Discrete Control Systems 2 credits. Discrete control concepts of power system operation including motor operated valve control, turbine sequencing and electrical system

protection. PREREQ: Electronics Core courses or permission of instructor. F

ESET 0220 Thermal Cycles and Heat Transfer 2 credits. Introduction to the Rankin, Carnot, and Brayton cycles. Includes principles of heat transfer and fluid flow and thermodynamic principles. PREREQ: Electronics Core courses or permission of instructor. F

ESET 0221 Boiler, Reactor, and Turbine Principles 2 credits. Survey of various boiler types and principles of combustion, overview of reactor principles and steam generation, turbine types and principles of operation. PREREQ: Electronics Core courses or permission of instructor. S

ESET 0222 Process Control Theory 3 credits. Electronic instruments-sensors, indicators, transmitters, computing relays, electro-optics, electronic controllers, ratio control, cascade control, recorders, analytical equipment, troubleshooting. PREREQ: Electronics Core courses or permission of instructor. S

ESET 0223 Digital Control Theory 2 credits. Digital systems, digital control, analog-to-digital and digital-to-analog interfacing, signal conditioning, programmable controllers, computer application. PREREQ: Electronics Core courses or permission of instructor. S

ESET 0224 Measurement Theory 2 credits. Calibration calculations, pressure scales, level considerations, specific gravity, elevation suppression, closed and open systems, temperature scales, thermocouple and RTD values, bulb and capillary devices, heat transfer, flow with square root linearization, gas flow measurement calculations, mass flow, humidity measurements, PH measurements. PREREQ: Electronics Core courses or permission of instructor. S

ESET 0225 Instrument Calibration Laboratory 1 credit. Use of test equipment, power supplies, current and volt measurements, use of oscilloscope, capacitor checker, decade box, Wheatstone bridge, transmitter simulator, manometers, pressure calibration devices. PREREQ: Electronics Core courses or permission of instructor. S

ESET 0226 Process Control Devices Laboratory 1 credit. Set up, maintenance and troubleshooting of electronic sensors, indicators, transmitters, relays recorders, and controllers, transmission with twisted pair, fiber optics, smart systems, and analytical equipment. PREREQ: Electronics Core courses or permission of instructor. S

ESET 0227 Digital Control Systems Laboratory 1 credit. Computer and programmable controller interfacing with transmitters and final elements, PID loops, auto tuning, set up to complete control loops, computer graphics. PREREQ: Electronics Core courses or permission of instructor. S

ESET 0228 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 0230 Communication Circuits 2 credits. Communication and various types of data

and information transfer circuits. Analysis of the various types of communication available, and their principles of operation. F

ESET 0230L 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 0231 Microcontrollers 2 credits. Principles of microcontroller and programmable controller programming including I/O devices and integration of process control principles. F

ESET 0231L 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 0232 Electrical Machines 3 credits. Energy storage, transfer, and conversion, force and emf production, coupled circuit analysis of systems with both electrical and mechanical inputs. Applications to electric motors and generators and other electromechanical transducers. F

ESET 0232L Electrical Machines Laboratory 3 credits. Laboratory applications of electrical machines including, testing, evaluation and industry best practices for installation and troubleshooting. F

ESET 0233 Electrical Power Systems 3 credits. The electric power industry, operation of power systems, load flow, fault calculations, economic dispatch and general technical problems of electric power networks. S

ESET 0233L Electrical Power Systems Laboratory 3 credits. Applications and laboratory studies of power network principles, equipment application and device evaluation. S

ESET 0235 Power Electronic Circuits 2 credits. Electronic theory addressing power electronic components, functions and configurations of power, multistage differential and operational amplifiers, oscillators, thyristors, power control and regulation circuits, sensors and networks. S

ESET 0235L Power Electronic Circuits Laboratory 1 credit. Electronic laboratory addressing the components, functions and configurations of power, multistage differential and operational amplifiers, oscillators, thyristors, power control and regulation circuits, sensors and networks. S

ESET 0240 Pumps 4 credits. Introductory hydraulic engineering concepts that pertain to centrifugal pumps, including pump seals, packing techniques, and bearings. Operation and maintenance of various industrial pump types. Emphasis on centrifugal pump maintenance and repair. PREREQ: ESET 0123 and ESET 0123L or permission of instructor. COREQ: ESET 0240L. F

ESET 0240L Pump Applications Laboratory 3 credits. Applications in the installation, testing, and maintenance of various pump types. PREREQ: ESET 0123 and ESET 0123L or permission of instructor. COREQ: ESET 0240. F

ESET 0241 Valves 4 credits. Introduction to basic construction, components, materials,

and function of valve types common to power generation systems. PREREQ: ESET 0123 and ESET 0123L or permission of instructor. COREQ: ESET 0241L. F

ESET 0241L Valve Applications Lab 2 credits. Applications of valve installation and maintenance including valve disassembly, reassembly, maintenance, and quality control practices. PREREQ: ESET 0123 and ESET 0123L or permission of instructor. COREQ: ESET 0241. F

ESET 0242 Process Measurements for Mechanical Engineering 2 credits. Principles of temperature, pressure, strain, flow, force, and vibration measurements. Techniques of computerized data acquisition and reduction. Lecture plus laboratory work in selected topics. F

ESET 0243 Fluid and Pneumatic Power 3 credits. Review fluid and pneumatic power mechanics with an emphasis on symbology, circuit operation and design, pneumatic and hydraulic component operation, and terminology. PREREQ: ESET 0123 and ESET 0123L or permission of instructor. COREQ: ESET 0243L. F

ESET 0243L Fluid and Pneumatic Power Laboratory 2 credits. Applications of fluid and pneumatic power mechanics with an emphasis on symbology, circuit operation and design, pneumatic and hydraulic component operation, and terminology. PREREQ: ESET 0123 and ESET 0123L or permission of instructor. COREQ: ESET 0243. F

ESET 0244 Rotating Equipment Maintenance 4 credits. Predictive maintenance techniques as a tool for prolonging equipment life and preventing problems. Includes vibration, lubricant and trend analysis techniques for extending bearing life. Machine, shaft, and gear alignment practices and methods as a procedure to extend the life of bearings, couplings, seals, and to reduce vibration in equipment, components and gears. PREREQ: ESET 0123 and 0124. S

ESET 0244L Machine Alignment 3 credits. Applications and use of tools and equipment used in the alignment process. Includes use of dial indicators and electronic and laser measuring devices. PREREQ: ESET 0124 or permission of instructor. S

ESET 0245 Fundamentals of Heat Exchangers 2 credits. Introduces construction of various heat exchanger types and their operation. Includes flow patterns, temperature profiles, and analysis techniques to determine performance and efficiency. S

ESET 0246 Materials and Metallurgy 2 credits. Lecture, demonstration, and laboratory emphasizing the practical approach to basic principles of materials and metallurgical science, including behavior of materials under various conditions. S

ESET 0247 Wind Energy Control Systems 2 credits. Measurement and control of mechanical and electrical systems, techniques of computerized data acquisition and reduction, electrical interconnection issues, technical challenges, safety issues, and metering associated with renewable resource generation. Discussion of

operation, dispatch, and control of wind systems, and their management and planning. PREREQ: ESET 0231 and ESET 0231L or permission of Instructor. COREQ: ESET 0247L. S

ESET 0247L Wind Energy Control Systems Laboratory 1 credit. Applications measurement and control of mechanical and electrical systems used in wind energy. PREREQ: ESET 0231 and ESET 0231L or permission of instructor. COREQ: ESET 0247. S

ESET 0290 Energy Systems Theory I 8 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 0290L. F

ESET 0290L Energy Systems Laboratory I 5 credits. Experiments in motor control circuits, relay and ladder logic circuits, computer interfacing with programmable controllers, transformers, timers, sensors, variable frequency controllers, thyristor circuits, troubleshooting electrical devices, and adapting relay logic circuits to programmable controllers. COREQ: ESET 0290. F

ESET 0291 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 0291L. S

ESET 0291L Energy Systems Laboratory II 4 credits. Application of Energy Systems control devices including: calibration of transmitters, recorders, indicators, and controllers. Interfacing pneumatic, electrical, electronic, hydraulic, programmable controllers, and computer devices. PID control loop tuning, installation and troubleshooting of working systems. COREQ: ESET 0291. S

ESET 0292 Electrical Engineering Technology I 7 credits. Theory involving communication and various data and information transfer circuits, principles of microcontroller and programmable controllers programming, and electrical machines including energy storage, transfer, and conversion applicable to electric motors, generators, and other electro-mechanical transducers. D

ESET 0292L Electrical Engineering Technology I Laboratory 5 credits. Lab involving communication and various data and information transfer circuits, principles of microcontroller and programmable controllers programming, and electrical machines including energy storage, transfer, and conversion applicable to electric motors, generators, and other electro-mechanical transducers. D

ESET 0293 Electrical Engineering Technology II 5 credits. Electric power industry theory addressing operations of power systems including electronic components, functions, and

configurations of power, amplifiers, oscillators, thyristors, power control and regulation circuits, sensors, and networks. D

ESET 0293L Electrical Engineering Technology II Laboratory 4 credits. Electric power industry lab addressing operations of power systems including electronic components, functions, and configurations of power, amplifiers, oscillators, thyristors, power control and regulation circuits, sensors and networks. D

ESET 0296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U or may be letter graded. PREREQ: Permission of instructor. D

ESET 0298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

Fire Services Administration

Coordinator: Mikitish

One Associate of Applied Science degree (which requires 69 credits) and one Bachelor of Science degree are available in this online program.

As a result of rapid changes in firefighting and the administrative duties currently being experienced in the field, academic degrees are being made available to those who have chosen firefighting as a career to enhance their knowledge base as well as to prepare them for organizational leadership positions.

The National Fire Science Curriculum Committee (NFSCC) of the United States Fire Academy Fire and Emergency Service Higher Education (FESHE) is working to attain the following objectives:

1. Creation of degree programs that teach critical thinking skills by requiring a significant number of general education courses rather than mostly fire science courses;
2. Development of associate degree programs that are transferable to baccalaureate programs;
3. Establishment of a model fire science curriculum at the associate level that universally standardizes what students learn and facilitates the application of these courses toward certification goals; and

4. Collaboration between fire certification and training agencies and academic fire programs.

The Fire Service Technology program is designed to upgrade the fire fighting skills and knowledge of volunteer and paid fire fighters. In some instances, a volunteer fire fighter may use this degree as a means to enter the fire service as a paid professional. The program covers all phases of fire fighting. The intent is to provide fire fighters with the skills needed to save lives and protect property in a safe and efficient manner. Special fees apply to this program. Students must be registered at Idaho State University to apply for graduation.

In order to apply for this program, one must currently be employed in the fire fighting profession. Students must be registered at Idaho State University to apply for graduation.

Because students must complete 38 credits of general education courses in addition to other degree requirements, it is highly recommended that a student meet with an advisor prior to beginning this program. An Associate of Science degree in Fire Services Administration is required for those wishing to pursue a Bachelor of Science in Fire Services Administration.

All Fire Services Administration courses are online. Students must have minimum computer requirements as listed in the program information packet, provided at <http://www.isu.edu/ctech/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)

BIOL 1100, 1100L Concepts Biology:		
	Human Concerns, and Lab	4 cr
CHEM 1100	Architecture of Matter	4 cr
COMM 1101	Principles Speech	3 cr
ECON 1100	Economic Issues	3 cr
ENGL 1101	English Composition	3 cr
ENGL 1102	Critical Reading and Writing	3 cr
PHIL 1103	Introduction to Ethics	3 cr
POLS 1101	Introduction to American Government	3 cr

Choose one course from each of the following four sets (12 cr):

AMST 2200	Introduction to American Studies	3 cr
	OR	
HIST 1118	U.S. History and Culture	3 cr
MATH 1130	Finite Mathematics	3 cr
	OR	
MATH 1153	Introduction to Statistics	3 cr
SOC 1102	Social Problems	3 cr
	OR	
SOC 1101	Introduction to Sociology	3 cr
	OR	
PSYC 1101	Introduction to General Psychology	3 cr
1 course from Goal 6		3 cr
	OR	
1 course from Goal 7		3 cr

Fire Services Administration Core Courses (12 lower division credits)*

FSA 1101	Building Construction for Fire Protection	2 cr
FSA 1102	Fire Behavior and Combustion	2 cr
FSA 1103	Fire Prevention and Education	2 cr
FSA 1104	Fire Protection Hydraulics and Water Supply	2 cr
FSA 1105	Fire Protection Systems	2 cr
FSA 1106	Principles of Emergency Service	2 cr

Fire Services Administration Non-Core Courses (4 credits)*

FSA 2201	Fire Administration I	2 cr
FSA 2202	Legal Aspects of the Emergency Services	2 cr

Emergency Medical Technician Basic Courses (15 credits)**

CIS 1101, CIS 1101L	Introduction to Computer Systems	3 cr
	OR	
BI 0170	Introduction to Computers	3 cr
	OR	
CSDT 0181	Computer Fundamentals	3 cr
EMTB 0119	Fundamentals of Emergency Medical Care	4 cr
EMTB 0119L	Fundamentals of Emergency Medical Care Laboratory	4 cr
EMTB 0120	Emergency Department Clinicals	2 cr
EMTB 0121	EMS Field Practicum	2 cr

*Completion of Fire Officer I (90 hours) meets this 4-credit requirement.

**Completion of Firefighter I (200 hours), Firefighter II (90 hours), and Current EMTB Certification (must maintain throughout the program), OR Current EMTB National Certification (must maintain throughout the program) meets the 12-credit EMTB requirement that is part of this group.

Bachelor of Science Degree: Fire Services Administration

(59 upper division credits) (Lower division (AS) and upper division must total 128 credits)

Fire Service Administration Degrees-at-a-Distance Courses (42 upper division credits)

FSA 3323	Fire and Emergency Services Administration	3 cr
FSA 3324	Analytic Approaches to Public Fire Protection	3 cr

FSA 3325	Personnel Management for the Fire Service Administrator	3 cr
FSA 3326	Fire Prevention Organization and Management	3 cr
FSA 3327	Fire-Related Human Behavior	3 cr
FSA 3328	Disaster Planning and Control	3 cr
FSA 3329	Political and Legal Foundations of Fire Protection	3 cr
FSA 3330	Fire Protection Structures and Systems	3 cr
FSA 3331	Community Risk Reduction for Fire and Emergency Services	3 cr
FSA 3332	Fire Investigation and Analysis	3 cr
FSA 3333	Applications of Fire Research	3 cr
FSA 3334	Fire Dynamics	3 cr
FSA 3335	Emergency Medical Services Administration	3 cr
FSA 3336	Managerial Issues of Hazardous Materials	3 cr

Additional course (2 cr) chosen from the following:

FSA 4403	Field Study	2 cr
FSA 4409	Practicum/Internship	2 cr

Political Science Emphasis (15 credits)*

(Fulfills requirements for a Minor in Political Science)

POLS 2202	Introduction to Politics	3 cr
Six credits of political science core curriculum Courses (excluding POLS 4460)		6 cr
Six credits of elective political science courses (excluding POLS 4459)		6 cr
Total		59 cr

*Note: POLS coursework for the Bachelor of Science in Fire Services Administration fulfills requirements for an Idaho State University Minor in Political Science. POLS 1101 Introduction to American Government is required for the minor if coursework is not complete in Fire Services Administration Associate degree.

FSA Courses

FSA 1101 Building Construction for Fire Protection 2 credits. Components of building construction related to fire and life safety. Firefighter safety, elements of construction and design of structures, building inspection, preplanning fire operations, and operating at emergencies. D

FSA 1102 Fire Behavior and Combustion 2 credits. Theories and fundamentals of fire: start, spread, and control. D

FSA 1103 Fire Prevention 2 credits. Comprehensive history and philosophy of fire prevention; organization and operation of a fire prevention bureau; use of fire codes; identification and correction of fire hazards; and the relationships of fire prevention with built-in fire protection systems, fire investigation, and fire- and life-safety education. D

FSA 1104 Fire Protection Hydraulics and Water Supply 2 credits. Principles and theories in the use of water in fire protection and hydraulic principles to analyze and solve water supply problems. D

FSA 1105 Fire Protection Systems 2 credits. Design and operation of fire detection and alarm systems, heat and smoke control systems,

special protection and sprinkler systems, water supply for fire protection and portable fire extinguishers. D

FSA 1106 Principles of Emergency Services 2 credits. Overview of fire protection. Includes philosophy and history of fire protection; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; fire strategy and tactics. D

FSA 2201 Fire Administration 2 credits. Organization and management of a fire department and the relationship of government agencies to the fire service. Emphasis on fire service leadership from the perspective of the company officer. D

FSA 2202 Legal Aspects of the Emergency Services 2 credits. Federal, State and local laws that regulate emergency services, national standards influencing emergency services, standard of care, tort, liability, and a review of relevant court cases. D

FSA 2296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U or may be letter graded. PREREQ: Permission of instructor. D

FSA 2298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

FSA 3323 Fire and Emergency Services Administration 3 credits. Organization and management in the fire services, including new technologies and changing organizational structures, personnel functions, manpower and training, statistics and reporting systems, and the managing of finances and other resources. PREREQ: FSA 1106, and FSA 2201. D

FSA 3324 Analytic Approaches to Public Fire Protection 3 credits. Introduction to systems analysis procedures and applications in fire protection, including systems thinking, statistical analysis, concepts and their application, system models, gathering and presenting data, fire incident analysis, financial analysis, performance surveys, using results, and public fire protection. PREREQ: FSA 104, 105, 106. D

FSA 3325 Personnel Management for the Fire Service Administrator 3 credits. Relationships and issues in personnel administration and human resource development within the context of fire-related organizations. PREREQ: FSA 106, 201, 202. D

FSA 3326 Fire Prevention Organization and Management 3 credits. Techniques, procedures, programs, and agencies involved with fire prevention, including concepts of fire prevention, governmental and non-governmental fire prevention functions, organizing fire prevention efforts, fire safety-related codes, effective fire

inspection, and evaluation of fire safety efforts. PREREQ: FSA 103, 106. D

FSA 3327 Fire-Related Human Behavior 3 credits. Human behavior in fires and disasters, arson, fire fighting, code compliance, and public fire education. Includes individual and group response during fire emergencies, fire's impact on individuals, families and the community, juvenile fire setters, arson, special populations, and the psychological impact of fire. PREREQ: FSA 106. D

FSA 3328 Disaster Planning and Control 3 credits. Concepts and principles of community risk assessment, planning, and response to fires and natural disasters. Introduction to disaster and fire defense planning, fire department disaster planning, the incident command system, mutual aid and automatic response, and training and preparedness. PREREQ: FSA 106. D

FSA 3329 Political and Legal Foundations of Fire Protection 3 credits. Legal, political and social aspects of the government's role in public safety, including the American legal system, legal processes, legal basis for the fire service, tort liability, negligence and fire suppression, safety, negligent operation, and the legal basis for fire safety regulation. PREREQ: FSA 106, 202. D

FSA 3330 Fire Protection Structures and Systems 3 credits. Design principles involved in structural fire protection and automatic suppression systems, including fire protection of buildings, fire resistance and endurance, computations and evaluation procedures for fire resistance, flame spread evaluation, and smoke production by burning materials. PREREQ: FSA 105, 106. D

FSA 3331 Community Risk Reduction for Fire and Emergency Services 3 credits. Community sociology, the role of fire-related organizations within the community, and their impact on the local fire problems. Introduction of community sociology, the changing nature of fire threat, and fire service relationships within the community. PREREQ: FSA 103, 106. D

FSA 3332 Fire Investigation and Analysis 3 credits. Examines technical investigative, legal and management approaches to the arson problem. Topics include an introduction to the principles of incendiary fire analysis, chemistry of fire, fire propagation and development, incendiary fire susceptibility, incendiary fire motivation, psychological and social motives. PREREQ: FSA 102, 106. D

FSA 3333 Applications of Fire Research 3 credits. Rationale for conducting fire protection research activities and applications, including fire dynamics and fire safety properties, fire test standards and codes, fire modeling, structural fire safety, automatic detections and suppression, life safety, transportation fire hazards, risk analysis and loss control, firefighter health and safety, and fire service applied research. PREREQ: FSA 103, 106. D

FSA 3334 Fire Dynamics 3 credits. Fire dynamics within the context of fire fighting, including chemistry, physical processes and fluid dynamics, fire and combustion, explosions, ignition and flame spread, flames and fire plumes,

suppression, fire dynamics applications to building codes and large-loss fires, special hazards, and fire modeling. PREREQ: FSA 102, 106. D

FSA 3335 Emergency Medical Services Administration 3 credits. An overview of the management of emergency medical services including organization, budget determination, purchasing and communication. Emphasis on directing and delegation of decision making including managing stress. PREREQ: EMTB 121 and FSA 106. D

FSA 3336 Managerial Issues of Hazardous Materials 3 credits. Federal and state regulations concerning hazardous materials, including health and safety, the hazardous materials management system, the incident command system, politics of hazmat incident management, site management and control, hazard and risk evaluation, personal protective clothing and equipment, and information management. PREREQ: FSA 106, 201, 202. D

FSA 4403 Field Study 2 credits. Field experience in directed study in a variety of professional and career-oriented situations. Open to degree candidates only. Graded P/NP.

FSA 4409 Practicum/Internship 2 credits. Supervised experience in fire service administration in a variety of command levels and responsibilities. Open to degree candidates only. Graded P/NP.

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 careers 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 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 lifelong learning.

5. Understand professional, ethical and social issues with commitment to quality and dependability.

For a Program Information Packet showing descriptions of each option, course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to <http://www.isu.edu/ctech/geomatics.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:

CET 0111/GEMT 1111	Drawing with CAD	3 cr
CET 0112/GEMT 1112	Beginning Surveying	5 cr
CET 0121/GEMT 1121	Civil Engineering Tech Drafting	3 cr
CET 0122/GEMT 1122	Intermediate Surveying	5 cr
CET 0216/GEMT 2216	Route Survey and Design	6 cr
CET 0217/GEMT 2217	State Plane Coordinates	4 cr
CET 0226/GEMT2226	Land and Construction Surveys	6 cr
CET 0227/GEMT 2227	Land Surveying Practices	4 cr
ENGL 3307	Professional and Technical Writing	3 cr
GEMT 3310	Surveying Law and Boundary Description	3 cr
GEMT 3311	Advanced Surveying	3 cr
GEMT 3312	Public Land Surveying	3 cr
GEMT 3313	Surveying Software Applications	3 cr
GEMT 3314	Research and Evidence in Surveying	3 cr
GEMT 3315	Surveying Adjustments and Coordinate Systems	3 cr
GEMT 3317	Subdivision Planning and Platting	3 cr
GEMT 4411	Geodesy	3 cr
GEMT 4415	Survey Office Practice	3 cr
GEMT 4420	Surveying Project I	1 cr
GEMT 4421	Surveying Project II	2 cr
GEMT 4425	Principles of Cartography	3 cr
GEMT 4430	GPS Principles and Applications	3 cr

GEOL 4403,4403L	Principles of Geographic Information Systems, and Lab	4 cr
MATH 1147	Precalculus	5 cr
MATH 1175	Calculus II	4 cr

Complete one of the following:

GEMT 4432	Principles of Photogrammetry	3 cr
GEOL 4409	Remote Sensing	3 cr

General Education Requirements:

ENGL 1101	English Composition	3 cr
ENGL 1102	Critical Reading and Writing	3 cr
Goal 2		3 cr
MATH 1153	Introduction to Statistics	3 cr
	AND	
MATH 1170	Calculus I	4 cr
Goal 4		4 cr
PHYS 1101, 1101L	Elements of Physics, and Lab	4 cr
HIST 1118	U.S. History and Culture	3 cr
ECON 1100	Economic Issues	3 cr
	OR	
ECON 2201	Principles of Macroeconomics	3 cr
	OR	
ECON 2202	Principles of Microeconomics	3 cr
Any two (2) of Goals 6, 7, and 8		6 cr
Any one (1) of Goals 10A, 10B or 12		3 cr or 8 cr
	TOTAL:	129 or 134 cr

GEMT Courses

GEMT 1111 Drawing with CAD 3 credits.

A basic study of mechanical drawing with computer-aided drafting emphasis. Instructional units include icon uses with layers, linetypes and colors, editing drawings, coordinate usage, polylines, isoview text, hatching, dimensioning, multiview and layout. Cross-listed as CET0111. F

GEMT 1112 Beginning Surveying 5 credits.

Introduction to surveying. Theory and field work using equipment in the areas of measuring (taping, chaining, using hand levels), leveling (differential and profile), theodolites and total stations. Field projects include alignment and profile, closed traverse, and introduction to survey coordinate geometry applications. Cross-listed as CET 0112. F

GEMT 1121 Civil Engineering Technology Drafting. 3 credits.

Civil engineering technology drafting, municipal and rural maps and drawings, drainage applications, plan and profile drawings, cross-sections, earthwork plats, legal descriptions, contour, quantity calculations, and other details relating to civil engineering technology drawings. Computer-aided-drafting (CAD) is used for drawings. Cross-listed as CET0121. PREREQ: CET0111/GEMT 1111. S

GEMT 1122 Intermediate Surveying 5 credits.

Study survey of land, traverses and closures, bearings, coordinates, construction surveying and staking. Control for surveys, topography surveying and mapping using calculators and coordinate geometry (COGO) to solve surveying problems. Introduction to data collection. Produce survey drawings with TDS COGO. Cross-listed as CET0122. PREREQ: CET0112/GEMT 1112. S

GEMT 2216 Route Survey and Design 6 credits.

Study of route surveying; circular, spiral, and parabolic curves as applied to highway design; route locations, plan, and specifications. Plans will be drawn with plotters using CAD and survey/engineering software. Cross-listed as CET0216. PREREQ: CET0122/GEMT 1122. F

GEMT 2217 State Plane Coordinates 4 credits.

Study of Idaho state plane coordinate system, resections, and radial surveying. Understanding USGS quad maps, magnetic declination, and map projections as they relate to the state plane coordinate system; basic GPS theory and operation in surveying practices. Cross-listed as CET0217. PREREQ: CET0122/GEMT 1122. F

GEMT 2226 Construction Surveying 6 credits.

Intermediate GPS theory and operation in construction surveying. Construction staking procedures and use of data collection roads software. Cross-listed as CET 0226. PREREQ: CET 0216/GEMT 2216. S

GEMT 2227 Land Surveying Practices 4 credits.

Advanced study of surveying topics including the Public Lands Survey System, land divisions, property descriptions, records of survey, and corner perpetuation and filing records. Cross-listed as CET 0227. PREREQ: CET 0217/GEMT 2217. S

GEMT 3310 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. D

GEMT 3311 Advanced Surveying 3 credits.

Discuss transverse mercator projection and state plane coordinates, spherical trigonometry and astronomical observation, and coordinate geometry calculations. Control surveys include triangulation, precise traverse, intersection and resection. Collect data using robotic station, digital level, and precise leveling. PREREQ: CET 0224/GEMT 2224 or permission of instructor. F

GEMT 3312 Public Land Surveying 3 credits.

Study of surveys of public land. Includes a general scheme of subdivision of U.S. public lands and legal aspects of land surveys, riparian rights, and irregularities in subdivision. Studies of Idaho Codes and regulation of public land surveys, corner perpetuation and filing, and recording of surveys. Students do case study and final report. PREREQ: CET 0224/GEMT 2224. F

GEMT 3313 Surveying Software Applications

3 credits. Civil/survey software. Topics include data download; batch file creation; editing and processing; COGO functions; field to finish functions; area and lot sizing; TINs, DTMs and contours creation; calculation of volumes and basic road design and layout. PREREQ: CET/GEMT 2224 or permission of instructor. F

GEMT 3314 Research and Evidence in Surveying 3 credits.

Survey of research sources and techniques including field, surveyors' offices, governmental agency, courtroom procedures and practices. Local government agency permit and approval procedures. Surveyor/attorney interaction and roles. Student will work on case studies and prepare a final report. PREREQ: GEMT 2224. S

GEMT 3315 Surveying Adjustments and

Coordinate Systems 3 credits. Studies matrix inverse; solution of linear equation by matrices,

theory and computation of least squares adjustments, coordinate transformation, error ellipses, and statistical testing. PREREQ: MATH 1170, MATH 1153 and CET 0224/GEMT 2224. S

GEMT 3317 Subdivision Planning and Platting 3 credits.

Land use planning; governmental regulations and permits as applied to subdivisions; subdivision planning, computations and preparation of subdivision plats. PREREQ: GEMT 3313 and GEMT 3315. F

GEMT 4400 Essentials of Surveying 2 credits.

Preparation for fundamentals of surveying exam. May not be used as a technical elective. May be repeated once for a total of 4 credits. PREREQ: Senior in Geomatics, graduate, or Civil Engineering Technology, Civil Engineering, or industry experience. Graded S/U. F, S

GEMT 4411 Geodesy 3 credits.

Introduces geometry of ellipsoid, reference coordinate systems, local geodetic coordinate system, reduction of observation to other geodetic values, precise leveling and orthometric height, direct and inverse geodetic position computation and gravity field of earth. PREREQ: Senior standing or permission of instructor. S

GEMT 4413 Land Information System 3

credits. Model of land information system, reference systems, data capture, structure, quality, and implementation of land information system. Student works on a case study and writes a final report. PREREQ: GEMT 2224 and MATH 1147 or permission of instructor. S

GEMT 4415 Survey Office Practice 3 credits.

Introduction to the broad skills required of a surveyor running a business. Topics covered include formulating a business plan, forms of business organizations, basic financial forms and accounting, concepts of pricing and bidding, personnel management, marketing, contracts and proposals, and project management. PREREQ: Senior standing or permission of instructor. S

GEMT 4417 Independent Study 1-3 credits.

Study of a selected surveying topic chosen by the student and approved by the instructor. Student will complete a final report. PREREQ: Permission of instructor. D

GEMT 4420 Surveying Project I 1 credit.

An independent study capstone course designed to further develop the skills required of a professional surveyor. Project is selected, designed, and performed under the guidance of a faculty member. PREREQ: Senior standing or permission of instructor. D

GEMT 4421 Surveying Project II 2 credits.

Continuation of the independent study capstone course designed to further develop the skills required of a professional surveyor. Project is designed and performed under the guidance of a faculty member. A formal presentation and defense of the project to faculty and peer committee is required. PREREQ: Senior standing or permission of instructor. D

GEMT 4425 Principles of Cartography 3

credits. Studies history of cartography; theory and practice of cartography including map reading, scales, spatial reference systems, projections, data acquisition, thematic mapping, map simplification, classification, generalization and

map design, and computer mapping. PREREQ: GEMT junior status or higher or permission of instructor. S

GEMT 4430 GPS Principles and Applications 3 credits. Introduction to theory and use of GPS for mapping and survey application. Basic principles of GPS positioning, GPS differential techniques, types of GPS receivers, static, kinematic and RTK procedures, vector processing and adjustment, coordinate creation and output, and export of result. PREREQ: CET 0224/GEMT 2224 or permission of instructor. F

GEMT 4432 Principles of Photogrammetry 3 credits. Introduction to vertical photo geometry and its scale, relief and tilt displacement, stereoscopic viewing, parallax measurement, mosaics, orientations, development of planimetric and topographic maps, flight planning, softcopy photogrammetry and introduction to aerial triangulation. PREREQ: CET 0224/GEMT 2224 or permission of instructor. S

GEMT 4496 Independent Study 1-8 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

GEMT 4498 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

Graphic Arts/ Printing Technology

3 to 4½ Semesters

Program Coordinator/Instructor: Hawk
Instructor: O'Neil

One Advanced Technical Certificate, two Associate of Applied Science Degrees and two Bachelor of Applied Science Degrees 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/ctech/graphicarts.shtml>.

Advanced Technical Certificate: Graphic Arts- Desktop Publishing/ Print Media

(3 Semesters)

Required Courses:

GART 0121	Introduction to Graphic Arts	2 cr
GART 0123	Finishing Binding	1 cr
GART 0124	Printing Mathematics	2 cr
GART 0127	Beginning Press Operations	5 cr
GART 0129	Beginning Desktop Publishing/ Print Media	6 cr

GART 0130	Intermediate Desktop Publishing/Print Media	7 cr
GART 0132	Advanced Desktop Publishing/ Print Media	6 cr

GART 0135	Graphic Arts Production	8 cr
GART 0136	Digital Imposition	6 cr
TGE 0151	Technical Writing	2 cr
TGE 0152	Technical Writing II	2 cr
TGE 0158	Employment Strategies	2 cr

General Education Requirements:

COMM 1101	Principles of Speech	3 cr
PSYC 1101	Introduction to General Psychology	3 cr
		TOTAL: 55 cr

Associate of Applied Science Degree: Graphic Arts

(4½ Semesters)

Required Courses:

GART 0121	Introduction to Graphic Arts	2 cr
GART 0123	Finishing Binding	1 cr
GART 0124	Printing Mathematics	2 cr
GART 0127	Beginning Press Operations	5 cr
GART 0128	Intermediate Press Operations	7 cr
GART 0129	Beginning Desktop Publishing/ Print Media	6 cr

GART 0130	Intermediate Desktop Publishing/ Print Media	7 cr
GART 0131	Advanced Press Operation	6 cr
GART 0132	Advanced Desktop Publishing/ Print Media	6 cr

GART 0135	Graphic Arts Production	8 cr
GART 0136	Digital Imposition	6 cr
GART 0137	Screen Printing	7 cr
TGE 0158	Employment Strategies	2 cr

General Education Requirements:

ENGL 1101	English Composition	3 cr
Goal 2		3 cr
Goal 3		3 cr
Goals 6, 7, 9, 10A, 11 or 12		3 cr
Goal 2-12		4 cr
		TOTAL: 81 cr

Associate of Applied Science Degree: Graphic Design in Print Media

(4½ Semesters)

Required Courses:

GART 0121	Introduction to Graphic Arts	2 cr
GART 0123	Finishing Binding	1 cr
GART 0124	Printing Mathematics	2 cr
GART 0127	Beginning Press Operations	5 cr
GART 0129	Beginning Desktop Publishing/ Print Media	6 cr

GART 0130	Intermediate Desktop Publishing/Print Media	7 cr
GART 0132	Advanced Desktop Publishing/ Print Media	6 cr

GART 0135	Graphic Arts Production	8 cr
GART 0136	Digital Imposition	6 cr
GART 0138	Introduction to Design/Print Media	7 cr
GART 0139	Digital Design Techniques and Emerging Technology	6 cr
GART 0140	Advanced Digital Design and Multiple Media	7 cr
TGE 0158	Employment Strategies	2 cr

General Education Requirements:

ENGL 1101	English Composition	3 cr
Goal 2		3 cr
Goal 3		3 cr
Goals 6, 7, 9, 10A, 11 or 12		3 cr
Goals 2-12		(min) 2 cr
		TOTAL: 81 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 0121 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. F, S, Su

GART 0123 Finishing Binding 1 credit. This course will introduce the student to the binding and finishing operations that are necessary to prepare the printed job for final delivery. This will include cutting the paper before and after printing, folding, creasing, slitting, scoring, binding and other finishing operations. F, S, Su

GART 0124 Printing Mathematics 2 credits. This course applies basic mathematics related to the graphic arts industry. This includes addition, subtraction, multiplication, division, fractions, percentages and appropriate conversions used in the graphic arts industry. F, S, Su

GART 0127 Beginning Press Operation 5 credits. Produce single color printed material on small offset presses. F, S, Su

GART 0128 Intermediate Press Operation 7 credits. Complex small offset press work to produce multicolor printing requiring close register. F, S, Su

GART 0129 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. F, S, Su

GART 0130 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. F, S, Su

GART 0131 Advanced Press Operation 6 credits. This course is designed to train the student in the operation of larger sheet-fed offset presses. The student will produce single and multicolor close register printing on larger format presses. PREREQ: GART 0128. F, S, Su

GART 0132 Advanced Desktop Publishing/Print Media 6 credits. Advanced training in more complex desktop publishing and electronic graphic applications. PREREQ: GART 0130. F, S, Su

GART 0135 Graphic Arts Production 8 credits. Produce live work from concept to completion, layout, typeset, produce negatives for masking and platemaking, print and complete the bindery work on small and large printing projects for the University. May include supervised internships and job shadowing. F, S, Su

GART 0136 Digital Imposition 6 credits. Terminology, 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. F, S, Su

GART 0137 Screen Printing 7 credits. Provide first hand experience in the varied aspects of screen printing processes and enable students to confidently produce quality, multi-colored and registered prints. F, S, Su

GART 0138 Introduction to Design/Print Media 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, S, Su

GART 0139 Digital Design Techniques and Emerging Technologies 6 credits. Digital application of design techniques. Using design in collaborated marketing packages and displays. Study of emerging technologies and trends in the graphic communications industry. F, S, Su

GART 0140 Advanced Digital Design and Multiple Media 7 credits. Production of digital design for application in print and on-line digital media. Application of production techniques in file editing and manipulation for multimedia output. F, S, Su

GART 0296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of

an instructor. May be repeated. Graded S/U or may be letter graded. PREREQ: Permission of instructor. D

GART 0298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

Health Information Technology

4 Semester Program for full time students. Part time program also available. This program can be taken fully online.

Coordinator and Master Instructor:
Young
Advanced Instructor: Lowry

The program is accredited by the Commission on Accreditation of Allied Health Educational Programs in conjunction with the American Health Information Management Association's Council on Accreditation. Graduates of the programs are eligible to write the national certification exam for the Registered Health Information Technician (RHIT).

One Associate of Applied Science Degree, one Bachelor of Science in Health Science Degree, and one Bachelor of Applied Science Degree are available. 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) dictated medical reports that document a patient's medical care and condition. These include office chart notes, history and physical examinations, consultations, letters, memos, admission notes, emergency department notes, operative reports, discharge summaries, and laboratory tests and diagnostic studies.

Classes are delivered via the internet. Recommended keyboard skill: 50 wpm. All required courses must be completed with a "C" grade or better.

Required Courses:

TGE 0158	Employment Strategies	2 cr
HO 0105	Introduction to Allied Health Careers	2 cr
HO 0106	Medical Terminology	2 cr
HO 0107	Medical Law and Ethics	3 cr
HO 0108	Basic Anatomy	2 cr
HO 0208	Introduction to Pathology	3 cr
HO 0209	Introduction to Drug Therapy	3 cr
HIT 0210	Medical Transcription I	3 cr
HIT 0211	Medical Transcription II	3 cr
HIT 0212	Medical Transcription III	3 cr
		Total 26 cr

Associate of Applied Science Degree: Health Information Technology

(4 Semesters)

Required Courses:

All required courses must be completed with a grade of "C" or better.

HO 0105	Introduction to Allied Health Careers	2 cr
HO 0106	Medical Terminology	2 cr
HO 0107	Medical Law and Ethics	3 cr
HO 0111	Introduction to Anatomy and Physiology	4 cr
	OR	
BIOL 3301	Anatomy and Physiology	4 cr
	AND	
BIOL 3302	Anatomy and Physiology	4 cr
HO 0208	Introduction to Pathology	3 cr
	OR	
BIOL 3305	Introduction to Pathobiology	3 cr
HO 0209	Principles of Drugs and Their Uses	3 cr
HIT 0201	Supervised Professional Practice I	2 cr

HIT 0202	Health Information I	4 cr
HIT 0203	Health Statistics and Quality Improvement	3 cr
HIT 0204	Health Information II	4 cr
HIT 0207	Supervised Professional Practice II	3 cr
HIT 0208	ICD 9-CM Coding	3 cr
HIT 0209	CPT Coding	3 cr
HIT 0213	Advanced Coding and Reimbursement	3 cr

General Education Requirements:

ENGL 1101	English Composition	3 cr
ENGL 1102	Critical Reading and Writing (Goal 1)	3 cr
MATH 1123	Mathematics in Modern Society (Goal 3)	3 cr
BIOL 1101, 1101L	Biology I, and Lab (Goal 4)	4 cr
PSYC 1101	Introduction to General Psychology (Goal 12)	3 cr
TOTAL:		58 or 62 cr

HIT Courses

HIT 0201 Supervised Professional Practice I 2 credits. Directed clinical practice in various health information sites under the preceptorship of a practicing professional for 4 hours per week for eight weeks. PREREQ: All first year courses must be completed. Graded P/NP. F, S

HIT 0202 Health Information I 4 credits. Introduction to the roles and responsibilities of the health information field. Study of the origin, use, content, format, record retention, numbering and filing systems of health information records. Study of computer applications found in health information. Accreditation and licensing standards along with state and federal laws pertaining to health information. F, S

HIT 0203 Health Statistics and Quality Improvement 3 credits. The collection, calculation and presentation of routine health data in conjunction with the assessment, monitoring, evaluation and improvement of health care. PREREQ: MATH 1123, HIT 0201 and HIT 0202. F, S

HIT 0204 Health Information II 4 credits. Theory, practice and skills in managing health information and personnel. F, S

HIT 0207 Supervised Professional Practice II 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 S/U. F, S

HIT 0208 ICD 9-CM Coding 3 credits. Principles and application of coding for statistical and reimbursement purposes utilizing the International Classification of Diseases. PREREQ: HO 0106, BIOL 1101, BIOL 1101L; and HO 0111 or BIOL 3301 and BIOL 3302. F, S

HIT 0209 CPT Coding 3 credits. Principles and application of coding for statistical and reimbursement purposes utilizing Physicians' Current Procedural Terminology in conjunction with documentation standards. PREREQ: HO 0106, BIOL 1101, BIOL 1101L; and HO 0111 or BIOL 3301 and BIOL 3302. F, S

HIT 0210 Medical Transcription I 3 credits. Introduction to medical transcription with an emphasis on the profession, history and physical report, pharmacology, laboratory and dermatology specialities. F, S, Su, W

HIT 0211 Medical Transcription II 3 credits. Medical transcription with an emphasis on the genitourinary, gastroenterology, orthopedics, and cardiology specialities. F, S, Su, W

HIT 0212 Medical Transcription III 3 credits. Medical transcription with an emphasis on pulmonary, endocrinology, obstetrics, gynecology, ophthalmology, otorhinolaryngology, and neurology specialities. F, S, Su, W

HIT 0213 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 0208 and HIT 0209. F, S

HIT 0296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U or may be letter graded. PREREQ: Permission of instructor. D

HIT 0298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

Health Occupations Department

Chair: Peterson

Program Coordinator and Professor:
Smith

Program Coordinator and Assistant
Professor: Pearce

Program Coordinators/Instructors: Beck,
Bird, Blakeman, Davidson,
Jernigan, McQuain, Mikitish, Young
Health Occupations Education Specialist
and Instructor: Flint

Health Occupations Programs:

The Health Occupations Department administers programs leading to certificates and degrees in health and human service fields. Included are the following:

Associate Degree Registered Nursing
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:

HO 0105	Introduction to Allied Health Careers	2 cr
HO 0106	Medical Terminology	2 cr
HO 0107	Medical Law and Ethics	3 cr
HO 0111	Introduction to Anatomy and Physiology	4 cr
	OR	
BIOL 3301	Anatomy and Physiology	4 cr
	and	
BIOL 3302	Anatomy and Physiology	4 cr
HO 0208	Introduction to Pathology	3 cr
HO 0209	Principles of Drugs and their Uses	3 cr

Bachelor of Science in Health Science

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 degree with a major in Health Science is to allow students who have graduated or are enrolled in health occupations training at the level of an associate degree to pursue a bachelor's degree with an advanced general health science focus. This major 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 Degree with a major in Health Science 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 Bachelor of Science Degree with a Major in Health Science 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 credits).

* *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: 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:

BIOL 3301,3301L	Anatomy and Physiology and Lab	4 cr
BIOL 3302,3302L	Anatomy and Physiology and Lab	4 cr
PHYS 1111,1113	General Physics I, and Lab*	4 cr
PHYS 1112,1114	General Physics II, and Lab*	4 cr
	OR	
PHYS 1100	Essentials of Physics*	4 cr
PSYC 3301	Abnormal Psychology I	3 cr
ENGL 3307	Professional and Technical Writing	3 cr
MATH 1153	Introduction to Statistics	3 cr

Either these four courses:

CHEM 1111, 1111L	General Chemistry I, and Lab	5 cr
CHEM 1112, 1112L	General Chemistry II, and Lab	4 cr

OR these three courses:

CHEM 1101	Introduction to General Chemistry*	3 cr
CHEM 1102,1103	Introduction to Organic and Biochemistry, and Lab*	4 cr
	TOTAL: 28-33 cr	

* *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 degree with a major 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:

ANTH 4407	Introduction to Medical Anthropology	3 cr
ANTH 4408	Special Topics in Medical Anthropology	3 cr
PSYC 2225	Child Development	3 cr
PSYC 3302	Abnormal Psychology II	3 cr
SOC 3301	Classical Social Theory	3 cr
SOC 3330	Sociology of Health and Illness	3 cr
SOC 3366	The Community	3 cr
SOC 4413	Mind, Body, and Society	3 cr

Health Education:

H E 3332	Community and Public Health	3 cr
H E 3340	Fitness and Wellness Programs	3 cr
H E 3383	Epidemiology	2 cr
H E 4420	Health Planning and Evaluation	3 cr
H E 4460	Health Behavior Change Theory and Application	3 cr

Physical Education:

PE 3300	Movement Theory and Motor Development	4 cr
PE 3301	Physiology of Exercise	4 cr
PE 3302	Biomechanics	3 cr
PE 3322	Psycho-Social Aspects of Human Activity	2 cr
PE 4470	Care and Prevention of Athletic Injuries	3 cr
PE 4494	Adapted Physical Activity	4 cr

Chemistry and Physical Science:

CHEM 3301,3303	Organic Chemistry I, and Lab	4 cr
CHEM 3302,3304	Organic Chemistry II, and Lab	3 cr
PHYS 3312	Introduction to Biophysics	4 cr

HO Courses

HO 0105 Introduction to Allied Health Careers 2 credits. Introduction to allied health careers emphasizing the interrelationships and the team approach to health care. F, S, Su

HO 0106 Medical Terminology 2 credits. Body systems approach to theory and application of medical terms including anatomical, pathological, surgical and diagnostic as well as appropriate abbreviations. F, S, Su

HO 0107 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 0108 Basic Anatomy 2 credits. The study of the structure and organization of the body and its parts. F, S

HO 0111 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 0208 Introduction to Pathology 3 credits. An introductory course in the concepts of pathol-

ogy. Includes causes, common mechanisms, and anatomic or functional manifestations of human disease. PREREQ: HO 0106, BIOL 1101/1101L; HO 0111 or BIOL 3301/3301L and BIOL 3302/3302L. F, S, Su

HO 0209 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 0106, BIOL 1101/1101L; HO 0111 or BIOL 3301/3301L and BIOL 3302/3302L. F, S, Su

Department of Human Resource Training and Development

Chair and Professor: Croker
Professor: Johnson

Associate Professors: Kolody, Scott
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.

Credit Requirements

Credit toward the Professional-Technical Teacher Education or Corporate Training option must be earned in four specific areas:

1. Work experience—Credit may be granted for occupational competency based on work experience: 32 credits maximum for work experience. A minimum of five years of documented full-time work experience is mandatory. A maximum of 24 months of professional-technical, proprietary, or military education successfully completed in an approved program may be applied. All applicable work experience and technical education must be documented, verified, and evaluated by a review committee prior to granting of credit. The credit granted may be applied toward the Professional-Technical Teacher Education or Corporate Training option only.
2. General education university requirements for a B.S. Degree: 34 credits minimum (see General Education Requirements section of catalog).
3. Professional-Technical Teacher Education or Corporate Training coursework, 44 credits minimum (see requirements).
4. Practicum—A practicum in teaching/training in an approved secondary or post-secondary professional-technical or industry training program must be completed. Selection of sites and supervision of the practicum is conducted through the Department of Human Resource Training and Development and the cooperating school or employer. The practicum requirement may be waived for experienced teachers/trainers based on evaluation of experience and a recommendation by the individual's employer. The overall credit requirement is not waived and must be fulfilled through other approved coursework.

Professional-Technical Teacher Education Option

The Professional-Technical Teacher Education Option 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

General Education requirements for a B.S. Degree (minimum)	34 cr
Major coursework and electives (minimum)	44 cr
Field of specialization (work experience) (HRD 2210/3310)	32 cr
Technical specialization or minor field of study (minimum)	18 cr
University graduation requirements (minimum)	128 cr

Required Courses: Professional-Technical Teacher Education Option

HRD 4401	Foundations of Professional-Technical Education	3 cr
HRD 4402	Occupational Analysis and Course Construction	3 cr
HRD 4403	Methods of Teaching Professional-Technical Education	3 cr
HRD 4404	Evaluation in Corporate Training and Professional-Technical Education	3 cr
HRD 4405	Learning Styles Fundamentals	3 cr
HRD 4444	Career Guidance and Special Needs in Professional-Technical Education	3 cr
HRD 4457	Facilitating Adult Learning	3 cr
HRD 4464	Instructional Facilities Management	3 cr
HRD 4467	Practicum in Professional-Technical Education	3-8 cr
HRD 4468	Teaching Cooperative Education and School-to-Work	3 cr

Electives: Professional-Technical Teacher Education Option

HRD 2207	Technology in Human Resource Training and Development	3 cr
HRD 3320	Selected Topics	1-3 cr
HRD 4406	Grantwriting in Human Resource Training and Development	3 cr
HRD 4409	Professional Readings and Writing	3 cr
HRD 4410	Group Initiative and Change	3 cr
HRD 4431	Workforce Leadership	3 cr
HRD 4450	Principles of Adult Education	3 cr
HRD 4461	Directed Studies	1-4 cr

Corporate Training Option

The Corporate Training Option prepares the student to analyze, design, develop, implement, and evaluate training in business and industry. The degree has been designed to recognize work experience

competency and technical skill earned through a postsecondary technical program, the military, or continuing education evaluated by the American Council of Education Guide.

Minimum Requirements: Corporate Training Option

General education requirements for a B.S. Degree (minimum)	34 cr
Major coursework and electives (minimum)	44 cr
Field of specialization (work experience) (HRD 2210/3310)	32 cr
Technical specialization or minor field of study (minimum)	18 cr
University graduation requirements (minimum)	128 cr

Required Courses: Corporate Training Option

HRD 4401	Foundations of Professional-Technical Education	3 cr
HRD 4402	Occupational Analysis and Course Construction	3 cr
HRD 4403	Methods of Teaching Professional-Technical Education	3 cr
HRD 4404	Evaluation in Corporate Training and Professional-Technical Education	3 cr
HRD 4405	Learning Styles Fundamentals	3 cr
HRD 4431	Workforce Leadership	3 cr
HRD 4450	Principles of Adult Education	3 cr
HRD 4457	Facilitating Adult Learning	3 cr
HRD 4464	Instructional Facilities Management	3 cr
HRD 4465	Practicum in Corporate Training	3 cr

Electives: Corporate Training Option

HRD 2207	Technology in Human Resource Training and Development	3 cr
HRD 3320	Selected Topics	1-3 cr
HRD 4406	Grantwriting in Human Resource Training and Development	3 cr
HRD 4409	Professional Readings and Writing	3 cr
HRD 4410	Group Initiative and Change	3 cr
HRD 4444	Career Guidance and Special Needs in Professional-Technical Education	3 cr
HRD 4461	Directed Studies	1-4 cr
HRD 4468	Teaching Cooperative Education and School-to-Work	3 cr

HRD Courses

HRD 2207 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 2210 Competency-Based Equivalency I 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 2220 Technical Education Equivalency 1-18 credits. Credit, unique to the corporate training and professional teacher education ma-

jors, for technical competence acquired through verified post-secondary professional-technical, proprietary, or military education evaluated by review committee. Graded S/U. F, S, Su

HRD 2296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U or may be letter graded. PREREQ: Permission of instructor. D

HRD 2298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

HRD 3310 Competency-Based Equivalency II 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 3320 Selected Topics 1-3 credits. Examination and analysis of special topics for professional-technical education teachers/trainers. PREREQ: Permission of instructor. D

HRD 3397 Professional Education Development 1-3 credits. A course for the practicing occupational educator aimed at the development and improvement of educational skills. Various sections will have different subtitles. May be repeated up to four times. Graded S/U. D

HRD 4401 Foundations of Professional-Technical Education 3 credits. Acquaints the student with the various aspects of professional-technical (formerly vocational) education: history, legislation, philosophy and organization of professional-technical education. D, W

HRD 4402 Occupational Analysis and Course Construction 3 credits. Analysis of components of occupations to determine instructional content. Development of instructional materials based on performance objectives and competency identification. F, S

HRD 4403 Methods for Teaching Professional-Technical Education 3 credits. Teaching methods and techniques applicable to professional-technical education. F, S

HRD 4404 Evaluation in Corporate Training and Professional-Technical Education 3 credits. Designing and conducting evaluations at four levels in professional-technical education, and in business and industry training, including data analysis and preparation of evaluation reports. F, S

HRD 4405 Learning Styles Fundamentals 3 credits. Examination of the research related to learning styles and implications for curriculum and instruction. Includes presentation of an eight-step approach for teaching pedagogical content. F, S

HRD 4406 Grantwriting in Human Resource Training and Development 3 credits. Reasons for requesting a grant, goal setting, sample projects, identifying funding agencies, submitting a

Request for Proposal (RFP), elements of a good proposal, library resources, websites, and other references for grantwriting. D

HRD 4409 Professional Readings and Writing 3 credits. Exposure to the professional literature and websites of professional-technical education and corporate training, including practice in writing abstracts of journal articles using APA Style. D

HRD 4410 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 4431 Workforce Leadership 3 credits. Supervising in a professional technical education or corporate training setting. Study human relations factors: planning, organizing, evaluation, staff development, labor relations, and personnel policies/practices. D

HRD 4444 Career Guidance and Special Needs in Professional-Technical Education 3 credits. Examine career guiding concepts, specialist services, special needs legislation, abilities and inabilities (both mental and physical), job seeking skills, and information sources. D

HRD 4450 Principles of Adult Education 3 credits. Provides an understanding of adult education as a field of academic inquiry and professional practice. Examines current and past trends and practices of adult learning. D

HRD 4457 Facilitating Adult Learning 3 credits. Study of the needs and interests of adult learners in business and industry using Andragogy. Planning of conferences and workshops for adult learners. F, S

HRD 4461 Directed Studies 1-4 credits. Individual work under staff guidance. Field research on specific occupational advances in technology. PREREQ: Permission of instructor. D

HRD 4464 Instructional Facilities Management 3 credits. Organization, safety, and management of professional-technical education training facilities. An in-depth study of laboratory requirements and total facility planning. D

HRD 4465 Practicum in Corporate Training 3 credits. Development of training competencies applicable to business and industry settings. Actual supervised participation as a trainer is required. PREREQ: Permission of instructor. Graded S/U. F, S

HRD 4467 Practicum: Student Teaching 3-8 credits. Development of teaching competencies applicable to professional-technical (formerly vocational) education settings at the secondary and post-secondary levels. Actual participation as an associate teacher is required. PREREQ: Permission of instructor. Graded S/U. F, S

HRD 4468 Teaching Cooperative Education and School-to-Work 3 credits. Coordinating cooperative education and school-to-work programs, occupational and job analysis, utilizing professional-technical advisory committees, organizing and advising vocational student organizations. S

Information Technology Systems

(2 to 4½ Semesters)

Coordinator and Instructor: Hill

Instructor: McElhinney

Two Technical Certificates, one Advanced Technical Certificate, one Associate of Applied Science degree, and one Bachelor of Applied Science degree are available.

Information technology systems technicians maintain, service, and repair computer equipment and computer peripherals. They also install, troubleshoot and maintain computer networks.

Courses listed will be taught in sequential blocks of instruction. Successful completion of a course is required before the student can progress in the program. If the student fails any math, theory, or lab course, then that course must be repeated and a passing grade of C- or better obtained before the student can advance in the program. However, a C- could prevent a student from graduating if the cumulative grade point average is less than 2.0 (a C- equals 1.7). A student must have a 2.0 GPA in the program's required curriculum in order to be eligible for a certificate or degree.

Upon completion of the Associate of Applied Science degree, a Bachelor of Applied Science degree is available to a student with the completion of formally approved academic courses.

Program length will vary depending on student's academic qualifications at time of acceptance.

For a Program Information Packet, go to the URL <http://www.isu.edu/ctech/its/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 0100	Computer System Troubleshooting and Analysis	3 cr
ITS 0110	Networking Basics	3 cr
ITS 0120	Introduction to Unix	3 cr
ITS 0130	Basic Electronic Concepts	4 cr
ITS 0150	Networking I	3 cr
ITS 0160	Networking II	3 cr
ITS 0170	Computer Peripheral Equipment	3 cr
ITS 0180	Network Operating Systems	3 cr
TGE 0158	Employment Strategies	2 cr
MANT 0131	Quality Customer Service	3 cr
		TOTAL: 30 cr

Advanced Technical Certificate: Computer Network Technician

(3½ Semesters)

Required Courses:

ITS 0100	Computer System Troubleshooting and Analysis	3 cr
ITS 0110	Networking Basics	3 cr
ITS 0120	Introduction to Unix	3 cr
ITS 0130	Basic Electronic Concepts	4 cr
ITS 0150	Networking I	3 cr
ITS 0160	Networking II	3 cr
ITS 0170	Computer Peripheral Equipment	3 cr
ITS 0180	Network Operating Systems	3 cr
ITS 0200	Data Cabling	7 cr
ITS 0210	Customer Relations Practicum	2 cr
ITS 0220	Networking III	3 cr
ITS 0230	Wireless Technologies	3 cr
ITS 0240	Securing the LAN	3 cr
TGE 0151	152 Technical Writing I, II	4 cr
TGE 0158	Employment Strategies	2 cr
MANT 0135	Work Place Relations	3 cr
		TOTAL: 52 cr

Associate of Applied Science Degree: Information Technology Systems

(4 ½ Semesters)

Required Courses:

ITS 0100	Computer System Troubleshooting and Analysis	3 cr
ITS 0110	Networking Basics	3 cr
ITS 0120	Introduction to Unix	3 cr
ITS 0130	Basic Electronic Concepts	4 cr
ITS 0150	Networking I	3 cr
ITS 0160	Networking II	3 cr
ITS 0170	Computer Peripheral Equipment	3 cr
ITS 0180	Network Operating Systems	3 cr

ITS 0200	Data Cabling	7 cr
ITS 0210	Customer Relations Practicum	2 cr
ITS 0220	Networking III	3 cr
ITS 0230	Wireless Technologies	3 cr
ITS 0240	Securing the LAN	3 cr
MANT 0135	Work Place Relations	3 cr
TGE 0158	Employment Strategies	2 cr

General Education Requirements:

ENGL 1101	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 0100 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 0110 Networking Basics I 3 credits. Classroom and laboratory experience in current and emerging networking technology. Includes network terminology and protocols. LANs, OSI model, cabling, cabling tools, IP addressing, and network standards. Uses networking software, tools, and equipment. Lecture/Laboratory F, S

ITS 0120 Introduction to Unix 3 credits. Introduction to UNIX operating system and 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 0130 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 0150 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 0160 Networking II 3 credits. Introduces and extends 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 0110. F, S

ITS 0170 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 0100. F, S

ITS 0180 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 0120. F, S

ITS 0200 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 0100. Su

ITS 0210 Customer Relations Practicum 2 credits. Students perform service work for industry partners on a supervised basis. PREREQ: MANT 0131. Su

ITS 0220 Networking III 3 credits. Wide Area Network technologies such as Point-to-Point Protocol, frame relay, and other emerging technologies. Lecture/Laboratory. PREREQ: ITS 0150. F, S

ITS 0230 Wireless Technologies 3 credits. Design, planning, implementation, operation and troubleshooting of wireless networks. Comprehensive overview of technologies, security, and design best practices with emphasis on hands-on skills. Lecture/Laboratory. PREREQ: ITS 0160. F, S

ITS 0240 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 0150 and ITS 0160. F, S

ITS 0250 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 0290 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

ITS 0296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U or may be letter graded. PREREQ: Permission of instructor. D

ITS 0298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

Instrumentation and Automation Engineering Technology

4½ Semester Program

Program Coordinator and Master Instructor: Snarr

One Postsecondary Technical Certificate, two Advanced Technical Certificates, two Associate of Applied Science Degrees, and two Bachelor of Applied Science Degree are available. This program offers two lines of study; one is instrumentation and automation engineering technology; the other is industrial controls.

Objective:

To prepare students for employment as technicians meeting the changing electrical and process automation needs of industry.

Employers include food, space, mining, semiconductor, chemical, nuclear, paper, steel, petroleum, utilities and manufacturing industries. Graduates will have hands-on experience setting up and troubleshooting three phase motor controls, variable frequency drives, programmable logic controllers, sensors, relays, timers, solenoids, and HMI (Human Machine Interface) stations. They will be able to install and troubleshoot electronic devices that measure and control temperature, level, flow, pressure, motion, force, humidity and acidity.

Selection of the Electronics option will occur in the second semester of the Electronic Core. Acceptance into particular options is based upon available openings and other factors such as a grade point average and attendance.

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>.

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 0131, ELTR 0130, INST 0220, and INST 0140 in the spring semester and concurrent enrollment in INST 0240, 0242, 0250, 0251, 0253, and 0254 during summer semester:

Required Courses:

ELTR 0130	Fundamental Electricity and Electronic Theory	5 cr
ELTR 0131	Fundamental Electricity and Electronic Lab	5 cr
INST 0140	Introduction to Motors and Motor Control Theory	2 cr
INST 0220	Introduction to Programmable Logic Controllers	3 cr
INST 0240	Instrumentation Theory	2 cr
INST 0242	Instrumentation Theory	2 cr
INST 0250	Laboratory	1 cr
INST 0251	Laboratory	1 cr
INST 0253	Laboratory	1 cr
INST 0254	Laboratory	1 cr

TOTAL: 23 cr

Advanced Technical Certificate: Instrumentation and Automation Engineering Technology

(4½ Semesters)

Required Courses

See the Electronics Core Curriculum section for required Electronics core courses.

INST 0236	Applications of Electronic, Electrical, and Process Control Fundamentals and Safety	6 cr
INST 0281	Electrical Automation Theory	8 cr
INST 0282	Electrical Automation Lab	5 cr
INST 0296	Process Measurement and Control Theory	10 cr
INST 0297	Process measurement and Control Lab	5 cr
TGE 0158	Employment Strategies	1 cr

General Education Requirements:

ENGL 1101	English Composition	3 cr
Goal 2		3 cr
		TOTAL 75 cr

Associate of Applied Science Degree: Instrumentation and Automation Engineering Technology

(4½ Semesters)

See the Electronics Core Curriculum section for required Electronics core courses.

Students must register concurrently for the lab course associated with each theory course.

Required Courses:

INST 0236	Applications of Electronic, Electrical, and Process Control Fundamentals and Safety	6 cr
INST 0281	Electrical Automation Theory	8 cr
INST 0282	Electrical Automation Laboratory	5 cr
INST 0296	Process Measurement and Control Theory	10 cr
INST 0297	Process Measurement and Control Laboratory	5 cr
TGE 0158	Employment Strategies	1 cr

General Education Requirements:

ENGL 1101	English Composition	3 cr
Goal 2		3 cr
Goal 3		3 cr
CHEM 1111, 1111L	General Chemistry I, and Lab (Goal 5)	5 cr
		OR

PHYS 1101, 1101L	Elements of Physics, and Lab (Goal 5)	4 cr
Goals 6, 7, 9, 10A, 11 and/or 12		(min.) 2 or 3 cr

Advanced Technical Certificate: Industrial Controls

(4 Semesters)

Required Courses:

ELTY 0131	Electrical Theory I	4 cr
ELTY 0132	Electrical Theory II	5 cr
ELTY 0133	Applied Mathematics I	4 cr
ELTY 0134	Applied Mathematics II	5 cr
ELTY 0135	Electrical Laboratory I	4 cr
ELTY 0136	Electrical Laboratory II	5 cr
ELTY 0137	Electrical Code I	3 cr
ELTY 0138	Electrical Code II	3 cr
ELTY 0139	Print Reading	2 cr
ELTY 0140	Motor Control Theory	2 cr
TGE 0151	Technical Writing	2 cr
TGE 0158	Employment Strategies	1 cr
IC 0291	Industrial Controls Theory	8 cr
IC 0292	Industrial Controls Laboratory	5 cr
INST 0296	Process Measurement and Control Theory	10 cr
INST 0297	Process Measurement and Control Laboratory	5 cr
		TOTAL: 69 cr

Associate of Applied Science Degree: Industrial Controls

(5 Semesters)

See the Electronics Core Curriculum section for required Electronics core courses. For this degree, the General Education Requirements portion of the Electronics Core does not apply, because students in this program may choose between a Physics and a Chemistry course to satisfy the physical science requirement.

Students must register concurrently for the lab course associated with each theory course.

Required Courses:

ELTY 0131	Electrical Theory I	4 cr
ELTY 0132	Electrical Theory II	5 cr
ELTY 0133	Applied Mathematics I	4 cr
ELTY 0134	Applied Mathematics II	5 cr
ELTY 0135	Electrical Laboratory I	4 cr
ELTY 0136	Electrical Laboratory II	5 cr
ELTY 0137	Electrical Code I	3 cr
ELTY 0138	Electrical Code II	3 cr
ELTY 0139	Print Reading	2 cr
ELTY 0140	Motor Control Theory	2 cr
TGE 0151	Technical Writing	2 cr
TGE 0158	Employment Strategies	1 cr
IC 0291	Industrial Controls Theory	8 cr
IC 0292	Industrial Controls Lab	5 cr
INST 0296	Process Measurement and Control Laboratory	10 cr
INST 0297	Process Measurement and Control Laboratory	5 cr

General Education Requirements:

ENGL 1101	English Composition	3 cr
Goal 2		3 cr
Goal 3		3 cr

CHEM 1111, 1111L	General Chemistry I, and Lab (Goal 5)	5 cr
		OR
PHYS 1101, 1101L	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 0291 Industrial Controls Theory 8 credits. Students will study active electronic devices, power supplies, op amps, transistors, thyristor phase control, digital electronics, motor control, PLCs, variable frequency drives, print reading, timers, sensors, and relays. PREREQ: Electrical Technician Certificate or 2 years' apprenticeship. COREQ: IC 0292. S

IC 0292 Industrial Controls Laboratory 5 credits. Students will learn practical applications and exercises in electronic circuits, automated control, PLCs, timers, sensors, relays, and motor controls. PREREQ: Electrical Technician Certificate or 2 years' apprenticeship. COREQ: IC 0291. S

IC 0296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

IC 0298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

INST Courses

INST 0140 Introduction to Motors and Motor Control Theory 2 credits. Introduces basic motors and motor control. Fundamentals of AC and DC motors; includes two-wire and three-wire controls using various controllers, control relays, timing relays, solenoid valves, latching relays, and motor control centers. Computer software used to design and verify motor control circuits. Su

INST 0220 Introduction to Programmable Logic Controllers 3 credits. Ladder format, I-O instructions, external devices, operating cycle, relays, timers, counters, sequencers, shift registers, analog applications, math blocks, and troubleshooting. F, S

INST 0231 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 0232 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, nonlinear optics, laser bandwidth, power supplies, optical fibers, fiber installation, testing, and maintenance. Laboratory-based learning experiences will strengthen and apply the principles taught in this course. PREREQ: Electronics Core courses. Su

INST 0233 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 0234 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 0235 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 0236 Applications of Electronic, Electrical, and Industrial Process Control Fundamentals 6 credits. Application of electronic sensors, thyristor circuits, and networks. Electrical motor control, relays, timers, and PLCs. Computer software used to design and verify motor control circuits, variable frequency drives, and interface methods for controllers. Basic process control, print reading, and device calibration methods. Troubleshooting techniques and safety practices. Su

INST 0240 Theory 2 credits. Basic concepts of process control devices, calibration and test equipment, diagrams and symbols. F, S, Su

INST 0241 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 0242 Theory 2 credits. Electronic instruments-sensors, indicators, transmitters, computing relays, electro-optics, electronic controllers, ratio control, cascade control, recorders, analytical equipment, troubleshooting. F, S, Su

INST 0243 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 0244 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 0250 Laboratory 1 credit. Use of test equipment, power supplies, current and volt measurements, use of oscilloscope, capacitor checker, decade box, Wheatstone bridge, transmitter simulator, manometers, pressure calibration devices. F, S, Su

INST 0251 Laboratory 1 credit. Set up, maintenance, and troubleshooting of pneumatic control systems, air supply, air regulators, pressure gauges pneumatic transducer calibration, control valve operation with and without positioner, controller operation set point, measurement error, offset, proportional band, reset, derivative, reverse and direct acting. F, S, Su

INST 0252 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 0253 Laboratory 1 credit. Computer and programmable controller interfacing with transmitters and final elements, PID loops, auto tuning, set up to complete control loops, computer graphics. F, S, Su

INST 0254 Laboratory 1 credit. Calibration of transmitters, simulation of process variables, temperature, pressure, level flow, and humidity control loops. F, S, Su

INST 0260 Electrical Systems Documentation and Standards 2 credits. Introduction to print reading, technical specifications, print annotation, report writing and electrical codes. F

INST 0281 Electrical Automation Theory 8 credits. Theory in application of control devices, sensors, timers, relays, programmable controllers, electrical code, print reading, single phase, split phase, three phase and variable frequency motor control, interfacing with devices used in automated manufacturing and process facilities. COREQ: INST 0282. S

INST 0282 Electrical Automation Laboratory 5 credits. Experiments in motor control circuits, relay and ladder logic circuits, computer interfacing with programmable controllers, transformers, timers, sensors, variable frequency

controllers, thyristor circuits, troubleshooting electrical devices, adapting relay logic circuits to programmable controllers. COREQ: INST 0281. S

INST 0288 Directed Studies 1-8 credits. Study tailored to individual assignment and reporting under faculty guidance. Student will pursue a unit of activity related to the instrumentation/industrial controls field. May be repeated for a maximum of 16 credits. PREREQ: Permission of instructor. D

INST 0294 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 0296 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 0297 Process Measurement and Control Laboratory 5 credits. Application of INST 0296; 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

Laser/ Electro-Optics Technology

4½ Semester Program

Program Coordinator

and Advanced Instructor: K. Buffaloe

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.

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 0271	Introduction to Lab Simulation	2 cr
ELEO 0233	Optoelectronics and Data Acquisitions Theory	5 cr
ELEO 0234	Optoelectronics and Data Acquisitions Lab	5 cr
ELEO 0245	Laser Fundamentals and Applications Theory	6 cr
ELEO 0246	Laser Fundamentals and Applications Lab	6 cr
ELEO 0247	Geometric Optics and Applications Theory	6 cr
ELEO 0248	Geometric Optics and Applications Lab	6 cr
TGE 0158	Employment Strategies	2 cr

General Education Requirement:

ENGL 101	English Composition	3 cr
		TOTAL: 76 cr

Associate of Applied Science Degree: Laser/Electro-Optics Technology

(4½ Semesters)

Required Courses: (see Electronics Core section for required Core courses)

ELTR 0271	Introduction to Lab Simulation	2 cr
ELEO 0233	Optoelectronics and Data Acquisitions Theory	5 cr
ELEO 0234	Optoelectronics and Data Acquisitions Lab	5 cr
ELEO 0245	Laser Fundamentals and Applications Theory	6 cr
ELEO 0246	Laser Fundamentals and Applications Lab	6 cr
ELEO 0247	Geometric Optics and Applications Theory	6 cr
ELEO 0248	Geometric Optics and Applications Lab	6 cr
TGE 0158	Employment Strategies	2 cr

General Education Requirements:

ENGL 1101	English Composition	3 cr
Goal 3		3 cr
Goals 6, 7, 9, 10A, 11 or 12		3 cr
		TOTAL: 82 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) 0141, Applied Mathematics I, and ELTR 0142, Applied Mathematics II, a student may enroll directly into an academic math course which requires MATH 1147 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 0233 Optoelectronics and Data Acquisition Theory 5 credits. Mathematical analysis and application methods of discrete opto-electronic 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 0234 Optoelectronics and Data Acquisitions Lab 5 credits. Experiments developed to enhance and supply practical hands-on experience of theory covered in ELEO 0233. PREREQ: Electronics Core Courses. Su

ELEO 0245 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 0233 and ELEO 0234. F

ELEO 0246 Laser Fundamentals and Application Lab 6 credits. Experiments developed to enhance and supply practical hands-on experience of theory covered in ELEO 0245. F

ELEO 0247 Geometric Optics and Applications Theory 6 credits. Movement of light through optical systems. Analytical and graphical study of reflection and refraction. PREREQ: Electronics Core Courses. S

ELEO 0248 Geometric Optics and Applications Lab 6 credits. Experiments developed to enhance and supply practical hands-on experience of theory covered in ELEO 0247. COREQ: ELEO 0247. S

ELEO 0296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

ELEO 0298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

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 0170	Detention Procedures I	3 cr
LAWE 0171	Cadet Practicum	3 cr
LAWE 0172	Health and Fitness I	3 cr
LAWE 0174	Human Relations	2 cr
LAWE 0175	Health and Fitness II	1 cr
LAWE 0176	Investigations I	3 cr
LAWE 0177	Investigations II	3 cr
LAWE 0178	Law I	3 cr
LAWE 0179	Law II	3 cr
LAWE 0180	Patrol Procedures I	3 cr
LAWE 0181	Patrol Procedures II	3 cr
LAWE 0182	Detention Procedures II	1 cr
LAWE 0183	Detention Procedures III	2 cr
TGE 0158	Employment Strategies	1 cr
		TOTAL: 34 cr

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 0170	Detention Procedures I	3 cr
LAWE 0171	Cadet Practicum	3 cr
LAWE 0172	Health and Fitness I	3 cr
LAWE 0174	Human Relations	2 cr
LAWE 0175	Health and Fitness II	1 cr
LAWE 0176	Investigations I	3 cr
LAWE 0177	Investigations II	3 cr
LAWE 0178	Law I	3 cr
LAWE 0179	Law II	3 cr
LAWE 0180	Patrol Procedures I	3 cr
LAWE 0181	Patrol Procedures II	3 cr
LAWE 0182	Detention Procedures II	1 cr
LAWE 0183	Detention Procedures III	2 cr
LAWE 0200	Law Enforcement Internship I	2 cr
LAWE 0201	Law Enforcement Internship II	3 cr
TGE 0158	Employment Strategies	1 cr

General Education Requirements:

ENGL 1101	English Composition	3 cr
Goal 2		3 cr
Goal 3		3 cr
SOC 1101	Introduction to Sociology	3 cr
SPAN 1101	Elementary Spanish I	4 cr
SPAN 1102	Elementary Spanish II	4 cr
plus six (6) credits from the following:		
BI 0170	Introduction to Computers	3 cr
CIS 1101	Introduction to Computer Systems	3 cr
MANT 0121	Essentials of Management	3 cr
MANT 0250	Front Line Supervision	3 cr
POLS 2248	Politics and the Administration of Justice	3 cr
POLS 2249	Introduction to Criminal Law	3 cr
PSYC 2200	Child Abuse	3 cr
SOC 2231	Juvenile Delinquency	3 cr
		TOTAL: 65 cr

LAWE 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.

LAWE 0170 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 0171 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 0172 Health and Fitness 3 credits.

This course is a practical physical fitness program tailored to the specific demands of the police profession. Lectures include nutrition, fitness lifestyles, and health. A first aid course for police officers including cardio-pulmonary resuscitation (CPR) is included in this series of instruction. F, S

LAWE 0174 Human Relations 2 credits.

This course provides officers with better understanding of their roles in the community and how the public responds to the police officer. Courses focus on the abilities of the officer to communicate with the public in a professional manner with respect to the task at hand. F, S

LAWE 0175 Health and Fitness II 1 credit.

This course is a continuation of LAW 0172. PREREQ: LAW 0172. F, S

LAWE 0176 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 examinations, laboratory procedures, and the collection of evidence. Applications of specific investigative techniques for specific offenses are studied. F, S

LAWE 0177 Investigations II 3 credits.

This course is a continuation of LAW 0176. PREREQ: LAW 0176. F, S

LAWE 0178 Law I 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 0179 Law II 3 credits.

This course is a continuation of LAW 0178. PREREQ: LAW 0178. F, S

LAWE 0180 Patrol Procedures I 3 credits.

This series of courses prepare the officers for patrol operations in their communities. Varied facets of patrol procedures including the sensitive handling of citizen crisis situation as well as the technical aspects of police patrol are studied. Several courses have practical application sessions following classroom instruction allowing the officer time to put new skills and ideas into practice. F, S

LAWE 0181 Patrol Procedures II 3 credits.

This course is a continuation of LAWE 0180. PREREQ: LAWE 0180. F, S

LAWE 0182 Detention Procedures II 1 credit.

Detention procedures relating to mental health, medical procedures, cross-gender supervision, human relations, and hostage relations. PREREQ: LAWE 0170. Su

LAWE 0183 Detention Procedures III 2 credits.

Topics include fire evacuation, security enveloping, cell searches, con games, inmate supervision, use of force, transports, extrication, and gang awareness. PREREQ: LAWE 0182. F

LAWE 0184 Patrol Procedures III 1 credit.

Covers a study of crimes against property, crimes against persons, traffic stops, family disturbances, and introduction to modern law enforcement. F, S, Su

LAWE 0185 Police Procedures 2 credits.

Radio procedures, jail procedures, booking, fingerprinting, report writing and note taking, courtroom testimony, searching suspects and handling prisoners, and building searches. F, S, Su

LAWE 0186 Firearms Proficiency 3 credits.

Covers firearms training both in the classroom and on the firing range. Also covers use of deadly force. Su

LAWE 0187 Enforcement Skills 1 credit.

Curriculum components include hazardous materials, weapon retention, defensive tactics, and the Emergency Vehicle Operations course. Su

LAWE 0200 Law Enforcement Internship I 2 credits.

This course includes assignments in jail activities, records management, communications, detective division, and other assignments with a Field Training Officer. PREREQ: Law Enforcement Certificate and criteria as a Reserve Level I Officer.

LAWE 0201 Law Enforcement Internship II 3 credits.

This course is a continuation of LAWE 0200. PREREQ: LAWE 0200.

LAWE 0296 Independent Study 1-8 credits.

Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

LAWE 0298 Special Topics 1-8 credits.

Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

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.

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 this catalog for details).

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/ctech/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 0120	Concepts of Accounting	3 cr
BI 0170	Introduction to Computers	3 cr
	OR	
CIS 1101, 1101L	Introduction to Computer Systems, and Lab	3 cr
MANT 0135	Work Place Relations	3 cr

MANT 0250	Supervision	3 cr
MART 0111	Principles of Economics	3 cr
MART 0112	Essentials of Marketing	3 cr
MART 0113	Marketing Mathematics	2 cr
MART 0130	Advertising and Promotions	3 cr
MART 0240	Professional Selling	2 cr
TGE 0158	Employment Strategies	2 cr

General Education Requirements:

ENGL 1101	English Composition	3 cr
COMM 1101	Principles of Speech	3 cr
		TOTAL: 34 cr

Associate of Applied Science Degree: Business Administration

(4½ Semesters)

Required Courses:

The following courses must be completed with a "C-" or better in each identified course.

BI 0120	Concepts of Accounting	3 cr
ACCT 2202	Principles of Accounting II	3 cr
	OR	
ACCT 3341	Managerial Cost Accounting	3 cr
CIS 1101, 1101L	Introduction to Computer Systems, and Lab	3 cr
ECON 2202	Principles of Microeconomics	3 cr
MANT 0130	Business Communications	3 cr
MANT 0135	Work Place Relations	3 cr
MANT 0250	Supervision	3 cr
MART 0111	Principles of Economics	3 cr
MART 0112	Essentials of Marketing	3 cr
MART 0113	Marketing Mathematics	2 cr
MART 0130	Advertising and Promotions	3 cr
MART 0240	Professional Selling	3 cr
MGT 2216	Business Statistics	3 cr
MGT 2261	Legal Environment of Organizations	3 cr
TGE 0158	Employment Strategies	2 cr

General Education Requirements:

ENGL 1101	English Composition	3 cr
Goal 1		3 cr
Goal 2		3 cr
MATH 1160	Applied Calculus	3 cr
ECON 2201	Principles of Macroeconomics	3 cr
Goals 4-12		3 cr
		TOTAL: 61 cr

Associate of Applied Science Degree: Business Technology

(4½ Semesters)

Students pursuing this degree must have earned a Technical Certificate of 32 credits or more.

Required Courses:

The following courses must be completed with a "C-" or better in each identified course.

BI 0120	Concepts of Accounting	3 cr
BI 0170	Introduction to Computers	3 cr
	OR	

CIS 0101, 0101L	Introduction to Computer Systems, and Lab	3 cr
MANT 0130	Business Communications	3 cr
MANT 0135	Work Place Relations	3 cr
MANT 0250	Supervision	3 cr
MART 0111	Principles of Economics	3 cr
MART 0112	Essentials of Marketing	3 cr
MART 0113	Marketing Mathematics	2 cr
MART 0130	Advertising and Promotions	3 cr
MART 0240	Professional Selling	2 cr
TGE 0158	Employment Strategies	2 cr

General Education Requirements:

ENGL 1101	English Composition	3 cr
Goal 2		3 cr
Goal 3		3 cr
Goals 4-11		4 cr
Goal 12		3 cr

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.

BI 0120	Concepts of Accounting	3 cr
BI 0170	Introduction to Computers	3 cr
	OR	
CIS 1101, 1101L	Introduction to Computer Systems, and Lab	3 cr
MANT 0130	Business Communications	3 cr
MANT 0135	Work Place Relations	3 cr
MANT 0242	Introduction to Business Law and Ethics	3 cr
MANT 0245	Introduction to Finance	3 cr
MANT 0250	Supervision	3 cr
MANT 0251	Small Business Management	3 cr
MART 0111	Principles of Economics	3 cr
MART 0112	Essentials of Marketing	3 cr
MART 0113	Marketing Mathematics	2 cr
MART 0130	Advertising and Promotions	3 cr
MART 0240	Professional Selling	3 cr
MART 0242	E-commerce and Business Marketing	3 cr
MART 0250	Retail Technology	3 cr
MART 0259	Career Internship	3 cr
TGE 0158	Employment Strategies	2 cr
WDM 0176	Desktop Publishing and Multimedia	3 cr

General Education Requirements:

ENGL 1101	English Composition	3 cr
Goal 2		3 cr
Goal 3		3 cr
Goals 4-11		4 cr
Goal 12		3 cr

TOTAL: 72 cr

HOST Courses

HOST 0240 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 0241 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 0121. F

HOST 0242 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 0121 and MART 0121. F

HOST 0251 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 0121 and MART 0121. S

HOST 0252 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 0121. S

HOST 0253 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 0121 and MART 0121. S

HOST 0254 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 0121 and MART 0121. F

HOST 0259 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.

MANT Courses

MANT 0130 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 1101. D

MANT 0135 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 0242 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 0245 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 0250 Supervision 3 credits. Practical supervisory skills such as decision making, critical thinking, supervision, motivation, evaluation, and reprimand. S

MANT 0251 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 0120. S

MANT 0259 Career Internship 3 credits. Practical experience using the skills learned in the Marketing and Management Occupations program. F, S, Su

MANT 0298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

MART Courses

MART 0111 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 0112 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 0113 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 0130 Advertising and Promotions 3 credits. Survey advertising and promotion principles; produce window displays and promotional pamphlets. PREREQ: MART 0111, MART 0112, and MART 0113. F

MART 0240 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 1101. F

MART 0242 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 0111, MART 0112, and MART 0113. S

MART 0250 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 0259 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 0298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

Massage Therapy

(3 1/2 Semesters)

Coordinator/Instructor: Beck

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 or Massage and Bodywork Licensing Exam (MBLEX).

One Certificate, one Associate of Applied Science Degree (see Associate of Applied Science Degree in Business Technology), a Bachelor of Applied Technology Degree, and a Bachelor of Science in Health Science are available.

For a Program Information Packet showing descriptions of each option, course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to <http://www.isu.edu/ctech/massagetherapy.shtml>.

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:

(Courses must be completed prior to acceptance into the program.)

HO 0105	Introduction to Allied Health Careers	2 cr
HO 0106	Medical Terminology	2 cr
BIOL 1101, 1101L	Biology I, and Lab	4 cr
HO 0111	Introduction to Anatomy and Physiology	4 cr
MSTH 0100	Introduction to Massage Therapy	2 cr

Required Courses:

HO 0208	Introduction to Pathology	3 cr
MSTH 0104	Introduction to Kinesiology	2 cr
MSTH 0105	Principles of Therapeutic Massage	2 cr
MSTH 0107, 0107L	Professional Massage Techniques, and Lab	4 cr

MSTH 0121	Massage Therapy Practicum*2 cr	
MSTH 0150, 0150L	Therapeutic Procedure and Assessment, and Lab	2 cr
MSTH 0160, 0160L	Advanced Therapeutic Massage Techniques, and Lab	4 cr
MSTH 0170	Spa Techniques	2 cr
MSTH 0200, 0200L	Special Issues in Massage, and Lab	3 cr
MSTH 0203, 0203L	Energetic and Asian Bodywork Theory and Techniques, and Lab	3 cr
MSTH 0210	Business Skills for Massage	2 cr
MSTH 0221	Massage Therapy Internship	2 cr
MSTH 0240, 0240L	Clinical and Sports Massage Techniques, and Lab	2 cr
		TOTAL: 47 cr

*This is a 1-credit course that is repeated for a total of 2 credits.

Associate of Applied Science Degree: Massage Therapy

Prerequisite Courses:

(Courses must be completed prior to acceptance into the program.)

BIOL 1101, 1101L	Biology I, and Lab	4 cr
HO 0105	Introduction to Allied Health Careers	2 cr
HO 0106	Medical Terminology	2 cr
HO 0111	Introduction to Anatomy and Physiology	4 cr
MSTH 0100	Introduction to Massage Therapy	2 cr

Required Courses:

HO 0208	Introduction to Pathology	3 cr
MSTH 0104	Introduction to Kinesiology	2 cr
MSTH 0105	Principles of Therapeutic Massage	2 cr
MSTH 0107, 0107L	Professional Massage Techniques, and Lab	4 cr
MSTH 0121	Massage Therapy Practicum*2 cr	
MSTH 0150, 0150L	Therapeutic Procedure and Assessment, and Lab	2 cr
MSTH 0160, 0160L	Advanced Therapeutic Massage Techniques, and Lab	4 cr
MSTH 0170	Spa Techniques	2 cr
MSTH 0200, 0200L	Special Issues in Massage, and Lab	3 cr
MSTH 0203, 0203L	Energetic and Asian Bodywork Theory and Techniques, and Lab	3 cr
MSTH 0210	Business Skills for Massage	2 cr
MSTH 0221	Massage Therapy Internship	3 cr
MSTH 0240, 0240L	Clinical and Sports Massage Techniques, and Lab	2 cr

General Education Requirements:

ENGL 1101	English Composition	3 cr
ENGL 1102	Critical Reading and Writing (Goal 1)	3 cr
Goal 3		3 cr
PSYC 1101	Introduction to General Psychology (Goal 12)	3 cr
		TOTAL: 60 cr

This is a 1-credit course that is repeated for 3 credits.

MSTH Courses

MSTH 0100 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 0104 Introduction to Kinesiology 2 credits. Fundamental principles of anatomical terminology, osteology, arthrology. Basic observation and palpation skills required. Cross-listed as PTA0104. PREREQ: Admission to the MSTH or PTA program. F

MSTH 0105 Principles of Therapeutic Massage 2 credits. History, requirements to practice, professionalism, ethics, sanitary and safety practices, effects, benefits, indications, contra-indications, equipment and products, policies, procedures, basic intake and consultation. PREREQ: Admission to MSTH program. F

MSTH 0107 Professional Massage Techniques 4 credits. Classification of movements, body mechanics, exercise for the practitioner, draping, basic and professional massage routines, hydrotherapy. Foundations for developing massage practitioner skills. PREREQ: Admission to MSTH program. COREQ: MSTH 0107L. F

MSTH 0107L Professional Massage Techniques Lab 0 credits. Skill building in foundational professional massage techniques. COREQ: MSTH 0107. F

MSTH 0121 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 0150 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 0150L. S

MSTH 0150L Procedure and Assessment Lab 0 credit. Skill building in therapeutic procedures and assessment. COREQ: MSTH 0150. F

MSTH 0160 Advanced Therapeutic Massage Techniques 4 credits. Exploration of various advanced massage techniques. PREREQ: Admission to MSTH program. COREQ: MSTH 0160L. S

MSTH 0160L Advanced Therapeutic Massage Techniques Lab 0 credits. Skill building in techniques for advanced therapeutic massage. COREQ: MSTH 0160. S

MSTH 0170 Spa Techniques 2 credits. Introduction to spa techniques and the spa environment. PREREQ: Admission to MSTH program. Su

MSTH 0200 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 0200L. F

MSTH 0200L Special Issues in Massage Lab 0 credits. Skill building addressing special issues and needs in massage therapy. PREREQ: Admission to MSTH program. COREQ: MSTH 0200. F

MSTH 0203 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 0203L. Su

MSTH0203L Energetic and Asian Bodywork Techniques Lab 0 credit. Skill building lab for energetic and Asian bodywork techniques. PREREQ: Admission to MSTH program. COREQ: MSTH 0203. Su

MSTH 0210 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

MSTH0221 Massage Therapy Internship 2-3 credits. Students are supervised in an actual work environment performing massage therapy skills to gain work readiness skills. 2 credits for Technical Certificate, 3 credits for Associates of Applied Science. PREREQ: Students must be in good standing in the MSTH program. Su

MSTH 0240 Clinical and Sports Massage Techniques 2 credits. Skills for working in clinical environments, communication, and insurance billing. Massage for clinical settings in hospitals, pre- and post sports events, restorative and rehabilitative settings. PREREQ: Admission to MSTH program. COREQ: MSTH 0240L. S

MSTH 0240L Clinical and Sports Massage Technique Lab 0 credit. Skill building in Clinical and Sports Massage. COREQ: MSTH0240. S

MSTH 0296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

MSTH 0298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

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 (AAMAEE). The program's accreditation status is current until September, 2016.

Commission on Accreditation of Allied Health Education Programs
1361 Park St
Clearwater FL 33756
(727) 210-2350
Fax: (727) 210-2354

NOTE: Graduates will be eligible to take the national certification exam for the Certified Medical Assistant (CMA). Individuals who have been found guilty of a felony, or pleaded guilty to a felony, are not eligible to take the CMA Exam. However, the Certifying Board may grant a waiver based upon mitigating circumstances.

The MA Curriculum is sequenced to provide the student with the best possible learning experience. Students who do not complete proper class sequence each semester will not progress to the next semester. ALL classes must be completed with a grade of "C" or higher to progress to any Clinical or Externship course.

For a Program Information Packet showing descriptions of each option, course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to <http://www.isu.edu/ctech/medicalassisting.shtml>.

This program requires students to achieve certain grades in order to advance each semester. Specific information is available in the program's student handbook.

Associate of Applied Science Degree: Medical Assisting

Required Courses:

The following courses must be completed with a "C" or better in each identified course.

BI 0170	Introduction to Computers	3 cr
HIT 0208	ICD9-CM Coding	3 cr
HIT 0209	CPT Coding	3 cr
HO 0105	Introduction to Allied Health Careers	2 cr
HO 0106	Medical Terminology	2 cr
HO 0107	Medical Law and Ethics	3 cr
HO 0208	Introduction to Pathology	3 cr
HO 0209	Basic Principles of Drugs and their Uses	3 cr
MA 0104	Introduction to Medical Assisting Administrative	4 cr
MA 0200	Clinical Medical Assisting I	4 cr
MA 0202	Phlebotomy and Administration of Medications	4 cr
MA 0203	Computers in Medical Assisting	4 cr
MA 0204	Clinical Externship	6 cr
MA 0204S	Clinical Externship Seminar	1 cr
MA 0205	Clinical Medical Assisting II	4 cr
MA 0206	Administrative Externship	2 cr
MA 0206S	Administrative Externship Seminar	1 cr
MA 0207	Professional Development	1 cr
MA 0208	Clinical Medical Assisting III	4 cr
HO 0111	Introduction to Anatomy and Physiology	4 cr
	OR	
BIOL 3301, 3301L, 3302, 3302L	Anatomy and Physiology, and Labs	8 cr

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.

BIOL 1101, 1101L	Biology I, and Lab	4 cr
ENGL 1101	English Composition	3 cr
ENGL 1102	Critical Reading and Writing	3 cr
MATH 1123	Mathematics in Modern Society	3 cr
PSYC 1101	Introduction to General Psychology	3 cr
	TOTAL:	75-80 cr

MA Courses

MA 0104 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. S

MA 0200 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; inventorying and ordering medical supplies; maintaining equipment; therapy modalities; preparing patients for exams; CPR and First Aid; patient education. PREREQ: Previous semester course sequence. F

MA 0202 Administration of Medications and Phlebotomy 4 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 0203 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. S

MA 0204 Clinical Externship 6 credits. Application of the principles and practice of medical assisting in an external learning environment/externship of a medical practice under the supervision of a physician and the medical practice staff. Graded S/U. PREREQ: All other MA required courses (including general education and HO courses). F, S

MA 0204S Clinical Externship Seminar 1 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. Graded S/U. PREREQ: All other MA required courses (including general education and HO courses). COREQ: MA 0204. F, S

MA 0205 Clinical Medical Assisting II 4 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 0206 Administrative Externship 2 credits. Application of the principles and practice of the administrative clerical functions of a medical office in an external learning/externship environment under the supervision of a physician and the business management staff. Graded S/U. PREREQ: All other MA required courses (including general education and HO courses). F, S

MA 0206S Externship Seminar 1 credit. Extension of MA 0206. Discuss experiences and progress with advisor and other students. Graded S/U. PREREQ: All other MA required courses (including general education and HO courses). COREQ: MA 0206. F, S

MA 0207 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 BI 0170. F

MA 0208 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: MA 0205. F

MA 0296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

MA 0298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

Paralegal Studies

4 Semesters

Program Coordinator and Instructor:
Keilholtz

An Associate of Applied Science Degree in Paralegal Studies and a Bachelor of Applied Technology are available.

This program will provide students with the skills and knowledge to work under the supervision of an attorney in all areas of the law including administrative, bankruptcy, civil litigation, corporate, criminal, domestic, employment, environmental, estate planning, health care, and real estate. Graduates will investigate, interview, research, organize, analyze, and draft case documents and materials, and generally assist attorneys in all phases of client representation.

For a Program Information Packet showing descriptions of each option, course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to <http://www.isu.edu/ctech/paralegal.shtml>.

This program requires students to achieve certain grades in order to advance each semester. Specific information is available in the program's student handbook. A grade of "C" or better in all courses of a chosen option is required for graduation. If a "C" or better is not achieved in a required class, the student may repeat the class only one time.

Associate of Applied Science Degree: Paralegal Studies

(4 Semesters)

Required Courses:

CIS 1101	Introduction to Computer Systems	3 cr
	OR	

BI 0170	Introduction to Computers	3 cr
PARA 0110	Introduction to Paralegal Studies	3 cr
PARA 0111	Ethics and Professionalism	3 cr
PARA 0113	Contract Law	3 cr
PARA 0115	Property Law	3 cr
PARA 0116	Tort Law	3 cr
PARA 0117	Criminal Law and Procedure	3 cr
PARA 0121	Law Office Management	3 cr
PARA 0122	Legal Research, Analysis, and Writing I	3 cr
PARA 0212	Pre-Trial Civil Litigation and Procedure	3 cr
PARA 0222	Legal Research, Analysis, and Writing II	3 cr
PARA 0230	Paralegal Internship	4 cr

Plus Six Credits from the Following

Courses:

PARA 0112	Estates, Wills, and Trusts	3 cr
PARA 0114	Family Law	3 cr
PARA 0118	Business Organizations	3 cr
PARA 0213	Post-Trial Civil Litigation and Procedure	3 cr
PARA 2015	Debtor/Creditor Rights and Bankruptcy Law	3 cr
PARA 0223	Legal Research, Analysis, and Writing III	3 cr
PARA 0298	Independent Paralegal Studies	1-8 cr

General Education Requirements:

ENGL 1101	English Composition	3 cr
Goal 1		3 cr
Goal 2		3 cr
Goal 3		3 cr
Goals 4-10B		6 cr
Goals 11 and 12		3 cr
		TOTAL: 64 cr

PARA Courses

PARA 0110 Introduction to Paralegal Studies 3 credits The legal system and the paralegal's role in it; fundamental paralegal skills and tasks; law office administration; computer technology; regulation of paralegals and paralegal ethics; and employment opportunities. A survey of the major substantive areas of the law is presented, with a summary discussion of the paralegal's role in each area. F

PARA 0111 Ethics and Professionalism 3 credits. Ethical standards and regulations governing paralegals and attorneys. Unauthorized practice of law, confidentiality of information, conflict of interest are covered in depth, along with common billing practices and fee arrangements, client trust accounts, filing and calendaring systems, and the documentation of client files. F

PARA 0112 Estates, Wills and Trusts 3 credits. Learn what estates, wills, trusts and guardianships are and how to write the documents pertaining to them. Emphasis on Uniform Probate Code including formal and informal probate proceedings and the administration and closing of estates. Focus is on the role of the paralegal in gathering information, researching, and drafting estate planning. F

PARA 0113 Contract Law 3 credits. Basic principles of contract law, including capacity, formation, conditions, enforcement, statute of frauds, performance and breach, remedies, defenses, and third-party rights. Portions of Articles 2 and 9 of the Uniform Commercial Code will also be addressed. Emphasizes the

role of the paralegal in gathering information, researching, and drafting contract documents. S

PARA 0114 Family Law 3 credits. This course instructs students in the law governing marriage, prenuptial agreements, marital property, divorce, child custody and support, paternity, termination of parental rights, adoption, and other matters relating to domestic legal rights. The role of the paralegal in the area of domestic law is emphasized. F

PARA 0115 Property Law 3 credits. The paralegal's role with regard to documents and concepts of ownership, conveyance, and encumbrance of real and personal property, including leases, licenses, liens, easements, remainders, and life estates. Includes public and private restrictions on land use, and proper drafting of deeds, leases, mortgages, foreclosure and eviction documents. S

PARA 0116 Tort Law 3 credits. The paralegal's role regarding fundamental concepts of tort law, including intentional torts, negligence, strict liability, and product liability and the elements necessary to prove each tort. Defenses to and damages recoverable for a tort claim. Personal injury litigation and worker's compensation will be discussed in depth. F

PARA 0117 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 0118 Business Organizations 3 credits. This course explores the basic types, formation and operation of business organizations, including corporations, partnerships, limited partnerships, limited liability companies, and sole proprietorships. The role of the paralegal in drafting documents and maintaining records for business organizations will be emphasized. F, S

PARA 0121 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 0122 Legal Research, Analysis, and Writing I 3 credits. Basic elements of legal research and sources of the law using print and electronic research methods. Develop rudimentary skills for analyzing legal issues and developing legal arguments. Introduce basics of legal document preparation such as case briefing, letter writing, and research memoranda drafting. PREREQ: BI 0170 or CIS 1101, ENGL 1101, and PARA 0110. S

PARA 0212 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 0213 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 0212. S

PARA 0215 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 0222 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 memoranda, litigation, and transactional documents. PREREQ: BI 0170 or CIS 1101, ENGL 1101, PARA 0110, and PARA 0122. S

PARA 0223 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 1101, PARA 0110, PARA 0122, and PARA 0222. F

PARA 0230 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 0296 Independent Study 1-8 credits. Addresses specific learning needs of individuals within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

PARA 0298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

Paramedic Science

4 ½ to 5 Semesters
Senior Lab Supervisor: 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 facilitators of access to care, as well as be initial treatment providers.

The objective of the Associate of Science in Paramedic is to prepare Emergency Medical Technicians with the opportunity to attain an Associate of Science degree in the Paramedic profession. This degree will provide employment and additional education opportunities for the student to become a registered, certified paramedic and work in the paramedic field in Idaho as well as surrounding states.

The Paramedic Program curriculum consists of a pre-professional year followed by three semesters of lecture, laboratory, and clinical field experience, including a three-month field internship. Students who earn the Associate of Science Degree are qualified to take the EMT-P examination through the National Registry of Emergency Medical Technicians.

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 Academic 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>.

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:

HO 0106	Medical Terminology	2 cr
BI 0170	Introduction to Computers	3 cr
	OR	
CIS 1101	Introduction to Computer Systems	3 cr
EMTB 0119	Fundamentals of Emergency Medical Care	4 cr
EMTB 0119L	Fundamentals of Emergency Medical Care Laboratory	4 cr
EMTB 0120	Emergency Department Clinicals	2 cr
EMTB 0121	EMS Field Practicum	2 cr
	TOTAL	17 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 Pre-professional Courses:

BIOL 1101,1101L	Biology I, and Lab and Lab	4 cr
BIOL 3301,3301L and BIOL 3302,3302L	Anatomy and Physiology, and Labs	8 cr
	OR	
HO 0111	Introduction to Anatomy and Physiology	4 cr
	Mathematics requirement (Goal 3)	3 cr
ENGL 1101	English Composition	3 cr
ENGL 1102	Critical Reading and Writing	3 cr
HCA 0210	Medical Terminology and Communication	2 cr
	OR	
HO 0106	Medical Terminology	2 cr
SOC 1101, SOC 1102, or PSYC 1101		3 cr
	TOTAL:	22 or 26 cr

Required Professional Courses:

Second Year, Fall Semester		
EMTP 0201	Paramedic I	5 cr
EMTP 0201L	Paramedic I Laboratory	3 cr
EMTP 0202	Paramedic Clinical Practicum I	2 cr

EMTP 0203	Advanced Airway Management Practicum	1 cr
EMTP 0210,0210L	Paramedic Pre-Hospital Pharmacology, and Lab	7 cr
	TOTAL:	18 cr

Second Year, Spring Semester

EMTP 0220	Paramedic II	5 cr
EMTP 0220L	Paramedic II Laboratory	3 cr
EMTP 0222	Paramedic Clinical Practicum II	2 cr
EMTP 0223	Paramedic Field Practicum I	2 cr
EMTP 0225,0225L	Cardiology and EKG Interpretation, and Lab	7 cr
	TOTAL:	19 cr

Second Year, Summer Semester

EMTP 0230	Paramedic Field Practicum II	4 cr
	TOTAL:	4 cr

TOTAL for Advanced Technical Certificate 59 or 67 cr

Associate of Science Degree: Paramedic Science

5 Semesters

Pre-professional Requirements:

BIOL 1101,1101L	Biology I, and Lab	4 cr
BIOL 3301,3301L and BIOL 3302,3302L	Anatomy and Physiology, and Labs	8 cr
COMM 1101	Principles of Speech	3 cr
ENGL 1101	English Composition	3 cr
ENGL 1102	Critical Reading and Writing	3 cr
HCA 2210	Medical Terminology and Communication	2 cr
	OR	
HO 0106	Medical Terminology	2 cr

General Education Requirements

Goal 3	3 cr
Two of Goals 6, 7, or 8	6 cr
Goals 9, 10A, 10B, or 11	6 cr
SOC 0101, SOC 0102 or PSYC 0101 (Goal 12)	3 cr

Paramedic (Professional) Requirements:

Second Year, Fall Semester

EMTP 0201	Paramedic I	5 cr
EMTP 0201L	Paramedic I Laboratory	3 cr
EMTP 0202	Paramedic Clinical Practicum I	2 cr
EMTP 0203	Advanced Airway Management Practicum	1 cr
EMTP 0210,0210L	Paramedic I Pre-Hospital Pharmacology, and Lab	7 cr
	TOTAL:	18 cr

Second Year, Spring Semester

EMTP 0220	Paramedic II	5 cr
EMTP 0220L	Paramedic II Laboratory	3 cr
EMTP 0222	Paramedic Clinical Practicum II	2 cr
EMTP 0223	Paramedic Field Practicum I	2 cr
EMTP 0225,0225L	Cardiology and EKG Interpretation, and Lab	7 cr
	TOTAL:	19 cr

Second Year, Summer Semester

EMTP 0230	Paramedic Field Practicum II	4 cr
	TOTAL:	4 cr

TOTAL for Associate Degree: 82 cr

EMTB Courses

EMTB 0119 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: EMTB 0119L, EMTB 0120, and EMTB 0121. F, S

EMTB 0119L Fundamentals of Emergency Medical Care Laboratory 4 credits. Practical application of didactic instruction in EMTB 0119. Discussion and application of basic computer skills in the health care setting is also covered. COREQ: EMTB 0119, EMTB 0120, and EMTB 0121. F, S

EMTB 0120 Emergency Department Clinicals 2 credits. Students rotate through various emergency room departments at local hospitals observing and performing basic life support skills under the direct supervision of an assigned preceptor. COREQ: EMTB 0119, EMTB 0119L, and EMTB 0121. F, S

EMTB 0121 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: EMTB 0119, EMTB 0119L, and EMTB 0120. F, S

EMTP Courses

EMTP 2201 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 0201L. F

EMTP 2201L Paramedic I Laboratory 3 credits. Practical application of didactic instruction from EMTP 0201, including role of the paramedic in health care delivery, duties and responsibilities, shock assessment and management, medication administration, and IV therapy. COREQ: EMTP 0201. F

EMTP 2202 Paramedic Clinical Practicum I 2 credits. Student rotations through various departments in hospitals, performing paramedic skills under the direct supervision of the clinical instructor and/or assigned clinical preceptors. Skills performed include all those learned, acquired, and practiced in EMTP 0201/0201L. COREQ: EMTP 0201/0201L. F

EMTP 2203 Advanced Airway Management Practicum 1 credit. Student rotations through operations rooms in local hospitals. Student is supervised by an anesthesiologist and/or CRNA while observing and performing endotracheal intubations. COREQ: EMTP 0201/0201L. F

EMTP 2210 Paramedic I 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 0201/0201L. F

EMTP 2210L 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 2220 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 are 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 0220L. S

EMTP 2220L Paramedic II Laboratory 3 credits. Practical application of didactic instruction in EMTP 0220. 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 0220. S

EMTP 2222 Paramedic Clinical Practicum II 2 credits. Student rotation through various departments in local 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 0201/0201L, and EMTP 0220/0220L. COREQ: EMTP 0220 and EMTP 0220L. S

EMTP 2223 Paramedic Field Practicum I 2 credits. Introduction of students to emergency care medicine as a member of an EMS provider team. Student will perform as a member of the EMS team and assist with patient care to their level of acquired and evaluated skills. COREQ: EMTP 0220 and 0220L. S

EMTP 2225 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 0220 and EMTP 0220L. S

EMTP 2225L 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 2230 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. S

EMTP 2296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

EMTP 2298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

Physical Therapist Assistant

4½ Semesters

Coordinator/Instructor: Jernigan
Instructor: Lippiello

An Associate of Applied Science degree, a Bachelor of Science in Health Science degree, and a Bachelor of Applied Technology degree are available.

Objectives:

This program will provide students with the skills and knowledge to:

1. Be a part of the health care team that plans and implements a patient care program.
2. Under the supervision of a physical therapist, they will carry out a treatment program that might include exercises for increasing strength, endurance, coordination and range of motion; the use of heat, cold, electricity, sound or water to relieve pain and stimulate muscle activity; instruction in safe physical activities and the use of devices such as walkers, crutches and wheelchairs.

The graduate might also assist the therapist in performing tests and assessments, as well as observing and reporting patient responses to treatment.

The Physical Therapist Assistant program is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE). Graduates of the program will be eligible to sit for the national examination for registration/licensure for Physical Therapist Assistants.

General education requirements must be completed with a cumulative 2.0 GPA. All other courses in the program must be completed with a 'C' or higher. If a student fails to meet the grade requirements, they will be dismissed from the PTA program. Students who are dismissed may petition to return the following year, however re-entry is not guaranteed but dependent on the approval of the petition and availability of a seat in that 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/ctech/physicaltherapistassistant.shtml>.

This program requires students to achieve certain grades in order to advance each semester. Specific information is available in the program's student handbook.

Associate of Applied Science Degree: Physical Therapist Assistant

Required Courses:

HO 0106	Medical Terminology	2 cr
HO 0107	Medical Law and Ethics	3 cr
HO 0111	Introduction to Anatomy and Physiology	4 cr
	OR	
BIOL 3301,3301L	Anatomy and Physiology, and Lab	4 cr
BIOL 3302,3302L	Anatomy and Physiology, and Lab	4 cr
HO 0208	Introduction to Pathology	3 cr
	OR	
BIOL 3305	Introduction to Pathobiology	3 cr
PTA 0104	Introduction to Kinesiology	2 cr
PTA 0105	Introduction to Physical Therapy	1 cr
PTA 0106	Applied Kinesiology	4 cr
PTA 0107	Procedures I	5 cr
PTA 0201	Procedures II	5 cr
PTA 202	Physical Therapy Assessment	4 cr
PTA 0203	Therapeutic Exercise	5 cr
PTA 0204	Seminar	3 cr
PTA 0213	Clinical Affiliation I	7 cr
PTA 0214	Clinical Affiliation II	7 cr

General Education Requirements:

ENGL 1101	English Composition	3 cr
ENGL 1102	Critical Reading and Writing	3 cr
Goal 3		3 cr
BIOL 1101,1101L	Biology I, and Lab	4 cr
PSYC 1101	Introduction to General Psychology	3 cr
	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 0104 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 0105 Introduction to Physical Therapy 1 credit. Roles and responsibilities of physical therapists and physical therapist assistants will be explored, as well as the history of physical therapy. Includes patient care, legal issues, principles of physical therapy treatment, education requirements, and functions of the American Physical Therapy Association (APTA). Local physical therapy facilities visited. PREREQ: PTA 0104 or permission of instructor. F

PTA 0106 Applied Kinesiology 4 credits. Studies the human anatomy with an emphasis on the musculoskeletal system, identification of structures and relationship to function, normal and abnormal biomechanical principles of joint motion and gait patterns. PREREQ: PTA 0105, BIOL 1101, BIOL 1101L, BIOL 3301, and BIOL 3301L. S

PTA 0107 Procedures I 5 credits. Procedures related to physical therapy treatment, including universal precautions, principles of physics, anatomy, kinesiology, thermal agents, ultrasound, vital signs and their use in therapeutics. Also, transfer training, ROM, ultrasound, wheelchair, and wound management. PREREQ: Second year student in good standing, and PTA 0105. S

PTA 0201 Procedures II 5 credits. A continuation of PTA 0107, Procedures I, including electrical stimulation theory and techniques for applying variations of electrical current, biofeedback, and other modalities. Students will also learn therapeutic management of prosthetics and orthotics. PREREQ: Second-year student in good standing, and PTA 0104, PTA 0105, PTA 0106, PTA 0107, and PTA 0213. F

PTA 0202 Physical Therapy Assessment 4 credits. Observation skills, tests and measurements in physical therapy including manual muscle testing, goniometry, vital signs, gait, pain, posture and functional assessment as related to patient progress. PREREQ: Second-year student in good standing, and PTA 0104, PTA 0105, PTA 0106, PTA 0107, and PTA 0213. F

PTA 0203 Therapeutic Exercise 5 credits. Therapeutic exercise principles and practices related to patient treatment. Includes stretching, proprioceptive neuromuscular facilitation, other rehab techniques like NDT, Rood, Brunnstrum, cardiopulmonary rehab, and exercise equipment. PREREQ: Second year student in good standing, and HO 0208, PTA 0201, and PTA 0202. S

PTA 0204 Seminar 3 credits. Current practices and issues in physical therapy. Includes clinical problem solving, ethics, legal aspects, reimbursement, case management, research, and employment issues. PREREQ: Second year student in good standing, PTA 0104, PTA 0105, PTA 0106, PTA 0107, PTA 0201, and PTA 0202. S

PTA 0213 Clinical Affiliation I 7 credits. Clinical instructor-supervised, eight-week clinical experience starting in the summer (May) after the first year. Experience will focus on initiating and developing beginning Physical Therapist Assistant skills in the treatment setting. PREREQ: Second year student in good standing, and PTA 0104, PTA 0105, PTA 0106, and PTA 0107. Su

PTA 0214 Clinical Affiliation II 7 credits. Clinical instructor-supervised, eight-week clinical experience starting in March of the second year. Experience will focus on performing Physical Therapist Assistant skills at a professional level in preparation for entering the workforce. PREREQ: Second year student in good standing, Second year student in good standing, PTA 0201, PTA 0202, PTA 0203, PTA 0204, and PTA 0213. S

PTA 0296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

PTA 0298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

Practical Nursing

2½ Semester Program (Full-time)

7½ Semester Program (Part-time or Outreach)

Coordinator and Assistant Professor:
Pearce

Instructors: Brumfield, Jensen, Krueger,
Kubiak, McBride

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/ctech/practicalnursing.shtml>.

This program requires students to achieve certain grades in order to advance each semester. Specific information is available in the program's student handbook.

Advanced Technical Certificate: Practical Nursing

Program Prerequisites

1. Certified Nursing Assistant (CNA) card
2. Current Health Care Provider CPR card
3. The following courses must be completed prior to starting the program:

BI 0170	Introduction to Computers	3 cr
	OR	
CIS 1101, 1101L	Introduction to Computers	3 cr
HO 0106	Medical Terminology	2 cr
	OR	
HCA/HE 2210	Medical Terminology and Communication	2 cr
HO 0111	Introduction to Anatomy and Physiology	4 cr
	OR	
BIOL 3301, 3301L	and BIOL 3302, 3302L	
	Anatomy and Physiology, and Labs	8 cr
NTD 3340	Nutrition	3 cr
	OR	
PNUR 0124	Nutrition and Diet Therapy for the Practical Nurse	2 cr
PSYC 1101	Introduction to General Psychology	3 cr
	PREREQUISITES TOTAL: 14, 15, 18 or 19 cr	

Program Requirements:

PNUR 0110, 0110L	Basic Foundations of Nursing, and Lab	4 cr
PNUR 0112	Medical Surgical Nursing I	3 cr
PNUR 0113	Medication Administration for Practical Nursing	1 cr
PNUR 0114	Clinical Foundations of Nursing I	3 cr
PNUR 0115	Professional Development Seminar	1 cr
PNUR 0121	Clinical Foundations of Nursing II	4 cr
PNUR 0123	Drug Therapy for the Practical Nurse	3 cr
PNUR 0125	Family Nursing for the Practical Nurse	5 cr
PNUR 0126, 0126L	Medical Surgical Nursing II, and Lab	5 cr
PNUR 0131	Clinical Foundations of Nursing III	2 cr
PNUR 0133, 0133L	Intravenous Therapy for the Practical Nurse, and Lab	2 cr
PNUR 0137	Clinical Foundations of Nursing IV	1 cr
PNUR 0139	Nursing Care of the Aged and Community-Based Nursing	3 cr
PNUR 0140	Management for the Practical Nurse	2 cr
	TOTAL (minimum): 53 cr	

PNUR Courses

Every student is required to earn a grade of "C-" or better in every class to be eligible for a certificate.

PNUR 0110 Basic Foundations of Nursing 3 credits. Principles of disease transmission, therapeutic communication, patient teaching/learning, medication administration, and the nursing process; basic clinical skills which provide the foundation for practical nursing. PREREQ: Admission to PNUR Program. COREQ: PNUR 0110L. F, ASu

PNUR 1010L Basic Foundations of Nursing Lab 1 credit. Practical application of the nursing process and basic clinical skills which provide the foundation for nursing practice. COREQ: PNUR 0110. F, ASu

PNUR 0112 Medical Surgical Nursing I 3 credits. Principles of practical nursing care for the ill adult. COREQ: PNUR 0110 or permission of instructor. F

PNUR 0113 Medication Administration for Practical Nursing 1 credit. The basics of safe medication administration, including math calculations and proper procedures. The medication examination included in this class must be successfully passed before the student practical nurse administers medication in clinical settings. COREQ: PNUR 0110 or permission of instructor. F, Su

PNUR 0114 Clinical Foundations of Nursing I 3 credits. Through hands-on clinical experience in a variety of settings, the student practical nurse learns skills basic to practical nursing. COREQ: PNUR 0110 or permission of instructor. F

PNUR 0115 Professional Development Seminar 1 credit. Professional development to increase understanding of the practical nurse's role and responsibilities. COREQ: PNUR 0110 or permission of instructor. F

PNUR 0121 Clinical Foundations of Nursing II 4 credits. Application of practical nursing concepts within increasingly more complex patient care situations including care of the family; includes application of the nursing process as well as drug and IV therapy. PREREQ: PNUR 0110 and PNUR 0123. S, AF

PNUR 0123 Drug Therapy for the Practical Nurse 3 credits. Drugs and their actions as related to patient care in practical nursing practice. COREQ: PNUR 0110 or permission of instructor. F

PNUR 0124 Nutrition and Diet Therapy for the Practical Nurse 2 credits. Basic nutrition principles and the application of diet therapy for health promotion. D

PNUR 0125 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: PNUR 0110. COREQ: PNUR 0121. S

PNUR 0126 Medical Surgical Nursing II 4 credits. Principles of practical nursing care for the ill adult. PREREQ OR COREQ: PNUR 0112. COREQ: PNUR 0121 and PNUR 0126L. S

PNUR 0126L Medical Surgical Nursing Lab 1 credit. Practical application of medical surgical nursing interventions and procedures/skills

within the practical nursing scope of practice. PREREQ OR COREQ: PNUR 0112 or PNUR 0126. S, AF

PNUR 0131 Clinical Foundations of Nursing III 2 credits. Theory and principles of practical nursing care are applied within the clinical setting. PREREQ: PNUR 0121. COREQ: PNUR 0140. AS, Su

PNUR 0133 Intravenous Therapy for the Practical Nurse 1 credit. Principles and practice of intravenous therapy for the Practical Nurse. Fluid and electrolyte balance, acid-base balance, parenteral solutions, infection control relating to IV therapy, central venous access, intravenous nutritional support, and clinical skills relating to intravenous therapy. PREREQ: or COREQ: PNUR 0110 or permission of instructor. COREQ: PNUR 0133L. S

PNUR 0133L Intravenous Therapy Lab for the Practical Nurse 1 credit. Application of intravenous therapy skills for the practical nurse. COREQ: PNUR 0110 or permission of instructor, and PNUR 0133. S

PNUR 0137 Clinical Foundations of Nursing IV 1 credit. Clinical experience in a variety of settings, including leadership roles within the practical nursing scope of practice. COREQ: PNUR 0140. AS, Su

PNUR 0139 Nursing Care of Aged and Community-Based Populations 3 credits. Practical nursing concepts of normal and abnormal aging in the older adult and in community-based settings. Apply critical thinking and nursing process strategies within community-based settings. Su

PNUR 0140 Management for the Practical Nurse 2 credits. Theory of first-level management skills for the practical nurse role. This course meets the criteria set forth by the Board of Nursing for the LPN Charge Nurse Role. PREREQ: PNUR 0112 and PNUR 0126. COREQ: PNUR 0137. AS, Su

PNUR 0296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

PNUR 0298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U; may be letter-graded. PREREQ: Permission of instructor. D

Respiratory Therapy

Semester Program

Coordinator/Instructor: Blakeman

Clinical Director/Instructor:

Pratoomratana

7 Semester Program for full-time students. Part-time program also available.

One Associate of Science Degree and one Bachelor of Science in Health Science Degree are available (see Health Occupations Department section). Immediately upon deciding this major, please contact the Student Services office of the College of Technology at (208) 282-2622.

For a Program Information Packet showing descriptions of each option, course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to <http://www.isu.edu/ctech/respiratory.shtml>.

This program requires students to achieve certain grades in order to advance each semester. Specific information is available in the program's student handbook.

Admission to Program

1. Submit completed application for admission to Idaho State University College of Technology.
2. a) Submit all official college or university transcripts (minimum GPA 2.5). If a student has 14 or more college or university academic credits, those will be used to calculate GPA instead of high school grades.
b) Submit an official high school transcript or GED scores (minimum GPA 2.5)
3. Job Shadowing--Complete a minimum of 12 hours of job shadowing in a respiratory therapy setting (please use form contained in application).
4. Submit proof of current Health Care Provider CPR (Cardiopulmonary Resuscitation) certification. You must remain current throughout the program.
5. The following prerequisite courses, or equivalents, must be completed with a grade of "C" or better in each course:

BIOL 2221,2221L	Introduction to Microbiology, and Lab*	4 cr
BIOL 3301,3301L	Anatomy and Physiology, and Lab*	4 cr
	OR	
BIOL 3302,3302L	Anatomy and Physiology, and Lab*	4 cr
CHEM 1101	Introduction to General Chemistry	3 cr
	OR	
CHEM 1111, 1111L	General Chemistry I, and Lab	5 cr
COMM 1101	Principles of Speech	3 cr
ENGL 1101	English Composition	3 cr
HO 0105	Introduction to Allied Health Careers	2 cr
HO 0106	Medical Terminology	2 cr
HO 0107	Medical Law and Ethics	3 cr
HO 0208	Introduction to Pathology	3 cr
HO 0209	Principles of Drugs and Their Uses	3 cr
MATH 1108	Intermediate Algebra or sufficient ACT/Compass score	3 cr

PSYC 1101	Introduction to General Psychology**	3 cr
	OR	
SOC 1101	Introduction to Sociology**	3 cr
	OR	
SOC 1102	Social Problems**	3 cr

**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:

BIOL 3301,3301L	Anatomy and Physiology, and Lab*	4 cr
	OR	
BIOL 3302,3302L	Anatomy and Physiology, and Lab*	4 cr
ENGL 1102	Critical Reading and Writing (Goal 1)	3 cr
MATH 1153	Introduction to Statistics (Goal 3)	3 cr
	Two of Goals 6, 7, and 8	6 cr
	Two of Goals 9, 10 A or 10B, and 11	6 or 11 cr

**If not taken prior to admission--both 3301 and 3302 are required.*

Respiratory Therapy Courses

RESP 2200	Introduction to Respiratory Care	4 cr
RESP 2211	Pharmacotherapy for Respiratory Therapists	2 cr
RESP 2214	Introduction to Pulmonary Disease	4 cr
RESP 2231	Patient Assessment I	2 cr
RESP 2232	Patient Assessment II	2 cr
RESP 2280	Case Management I	2 cr
RESP 3301	Mechanical Ventilators	4 cr
RESP 3310	Case Management II	2 cr
RESP 3320	Clinical Practice of Therapeutic Procedures I	5 cr
RESP 3325	Clinical Practice of Therapeutic Procedures II	3 cr
RESP 3330	Clinical Practice of Therapeutic Procedures III	5 cr
RESP 3335	Clinical Practice of Therapeutic Procedures IV	5 cr
	TOTAL:	65 or 71 cr

RESP Courses

RESP 2200 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: HCA 0110 and HE/HCA 2210. F

RESP 2211 Pharmacotherapy for Respiratory Therapists 2 credits. Study of therapeutic drug administration for respiratory therapists. Special emphasis on safety issues, sources of drug information, and application to respiratory care practice. PREREQ: PSCI 3315. COREQ: RESP 2200. F, S

RESP 2214 Introduction to Pulmonary Disease 4 credits. Integrated approach to the anatomy, physiology, and pathology of the cardiopulmonary system. Comparison of normal and abnormal function. Emphasis on cardiopulmonary functions that are frequently measured to monitor patient status. Includes clinical practice of procedures and skills. PREREQ: RESP 2200, BIOL 3301, BIOL 3301L, BIOL 3302 and BIOL 3302L. S

RESP 2231 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 2200 and RESP 2214. Su

RESP 2232 Patient Assessment II 2 credits. Holistic approach to assessment of adult and pediatric patients in acute care settings. Special emphasis on assessment of the cardiopulmonary function. PREREQ: RESP 2231. F, S

RESP 2280 Case Management I 2 credits. Holistic approach to the management of adult and pediatric patients in sub-acute settings. Special emphasis on management of cardiopulmonary problems. PREREQ: RESP 2211 and RESP 2214. F

RESP 2296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

RESP 2298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

RESP 3301 Mechanical Ventilators 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 2214. S

RESP 3310 Case Management II 2 credits. Holistic approach to the management of adult and pediatric patients in acute care settings. Special emphasis on management of cardiopulmonary problems. PREREQ: RESP 2280. F, S

RESP 3320 Clinical Practice of Therapeutic Procedures I 5 credits. Focus on conducting respiratory care in the sub-acute setting. PREREQ: RESP 2230 and RESP 2280. S

RESP 3325 Clinical Practice of Therapeutic Procedures II 3 credits. Focus on conducting

respiratory care in the acute setting. PREREQ: RESP 3320. Su

RESP 3330 Clinical Practice of Therapeutic Procedures III 5 credits. Focus on conducting respiratory care in the acute setting. PREREQ: RESP 2235. F

RESP 3335 Clinical Practice of Therapeutic Procedures IV 5 credits. Focus on conducting respiratory care in the acute and intensive care settings. PREREQ: RESP 3330. S

Robotics and Communication Systems Engineering Technology

6 to 6½ Semesters

Coordinator and Instructor: Slack
Assistant Professor: Norton
Senior Instructor: Durtschi
Advanced Instructor: R. Buffaloe
Instructor: L. Larson

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:

ELSY 0331	Laser Systems/Optics Theory	4 cr
ELSY 0332	Laser Systems/Optics Laboratory	4 cr
		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) 0141, Applied Mathematics I, and ELTR 0142, Applied Mathematics II, a student may enroll directly into an academic math course which requires MATH 1147 as a prerequisite.

Advanced Technical Certificate: Robotics and Communication Systems Engineering Technology

(6 Semesters)

Required Courses (see Electronics Core section for required Core courses):

ELTR 0271	Introduction to Lab Simulation	2 cr
ELSY 0251	Systems Analog and Digital Theory	7 cr

ELSY 0253	Systems Analog and Digital Laboratory	5 cr
ELSY 0264	Introductory Calculus	4 cr
ELSY 0265	Computer Fundamentals and Introduction to Programming	4 cr
ELSY 0267	Radio Frequency Transmission Theory	7 cr
ELSY 0268	Radio Frequency Transmission Laboratory	5 cr
ELSY 0270	Electronic Drafting II	2 cr
ELSY 0371	Advanced Math for Electronics	4 cr
ELSY 0372	Calculus for Advanced Electronics	4 cr
ELSY 0373	Advanced Digital Theory	5 cr
ELSY 0374	Advanced Pulse Theory	5 cr
ELSY 0375	Advanced Digital Laboratory	5 cr
ELSY 0376	Advanced Pulse Laboratory	5 cr
TGE 0158	Employment Strategies	2 cr

General Education Requirement:

ENGL 1101	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 0271	Introduction to Lab Simulation	2 cr
ELSY 0251	Systems Analog and Digital Theory	7 cr
ELSY 0253	Systems Analog and Digital Laboratory	5 cr
ELSY 0264	Introductory Calculus	4 cr
ELSY 0265	Computer Fundamentals and Introduction to Programming	4 cr
ELSY 0267	Radio Frequency Transmission Theory	7 cr
ELSY 0268	Radio Frequency Transmission Laboratory	5 cr
ELSY 0270	Electronic Drafting II	2 cr
ELSY 0371	Advanced Math for Electronics	4 cr
ELSY 0372	Calculus for Advanced Electronics	4 cr
ELSY 0373	Advanced Digital Theory	5 cr
ELSY 0374	Advanced Pulse Theory	5 cr
ELSY 0375	Advanced Digital Laboratory	5 cr
ELSY 0376	Advanced Pulse Laboratory	5 cr
TGE 0158	Employment Strategies	2 cr

General Education Requirements:

ENGL 1101	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 0251 Systems Analog and Digital Theory 7 credits. Analog circuit analysis applied to amplifiers, power supplies, op-amps, and discrete switching circuits, with an emphasis on frequency limitations of discrete components and circuitry. Review of digital components and principals. COREQ: ELSY 0253 and ELSY 0264. F, S

ELSY 0253 Systems Analog and Digital Laboratory 5 credits. Emphasizes understanding of analog and digital circuitry by allowing students to design, construct, test, and troubleshoot using proper test equipment. PREREQ: ELTR 0156. COREQ: ELSY 0264 and ELSY 0251. F, S

ELSY 0264 Introductory Calculus 4 credits. Correlations of algebraic, trigonometric and geographic topics as well as logarithms and their applications. Algebraic calculus concepts involving differentiation and integration and their applications to electronic circuits and waveform analysis. Supports ELSY 0251. PREREQ: ELTR 0142 or equivalent. COREQ: ELSY 0251 and ELSY 0253. F, S

ELSY 0265 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 0267 Radio Frequency Transmission Theory 7 credits. Theory, analysis, and design of devices operating in the radio frequency spectrum. Fundamentals involving the phenomena of radio waves from audio frequencies through light rays. F, S

ELSY 0268 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 0270 Electronic Drafting II 2 credits. Continuation of ELTR 0269 with emphasis on block diagrams, schematic diagrams, and printed circuit board layout. F, S

ELSY 0296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

ELSY 0298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

ELSY 0331 Laser Systems/Optics Theory 4 credits. Theory and analysis of lasers and associated devices. Covers laser fundamentals, wave and geometric optics, electro-optics devices and components. Su

ELSY 0332 Laser Systems/Optics Laboratory 4 credits. Practical application of theory and analysis in analyzing laser/optics systems. Su

ELSY 0371 Advanced Math for Electronics 4 credits. The 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 0372 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 0374. Satisfies Goal 3 of the General Education Requirements. PREREQ: ELSY 0262. F, S

ELSY 0373 Advanced Digital Theory 5 credits. A study of microcomputer operation, programming, interfacing to digital and analog systems, and troubleshooting. Memory and storage systems. System microcontroller integration using a software development system. F, S

ELSY 0374 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, modules, and individual analog/digital circuits will be covered. Practical application of circuits used in conjunction with Advanced Pulse Laboratory (ELSY 0376). Discussion, lectures, classroom and lab demonstrations are used to help the student gain knowledge and troubleshoot equipment in large system. F, S

ELSY 0375 Advanced Digital Laboratory 5 credits. Practical application of topics covered in ELSY 0371 and 0373 while building, programming, and troubleshooting microprocessor and microcontroller based systems. F, S

ELSY 0376 Advanced Pulse Laboratory 5 credits. Practical equipment and systems application of analog/digital circuits used in conjunction with Advanced Pulse Theory (ELSY 0374). Operation of the lab is by an exploratory method with guides furnished by the instructor. Test results of these explorations will be maintained in written log form and will be presented in verbal form to other student technicians. One major student project is accomplished during the semester, 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 0383 Advanced Laser Systems/Optics Theory 5 credits. Advanced theory and analysis of lasers and associated devices. Covers advanced laser topics, wave and geometric optics, electro-optics devices and components. PREREQ: ELSY 0331 and ELSY 0332. Su

ELSY 0384 Advanced Laser Systems/Optics Laboratory 3 credits. Practical application of advanced theory and analysis in analyzing laser/optics systems. PREREQ: ELSY 0331 and ELSY 0332. 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/ctech/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 0170	Introduction to Computers	3 cr
ENGL 1101	English Composition	3 cr
TGE 0158	Employment Strategies	2 cr
WDM 0176	Desktop Publishing/Multimedia	3 cr
WDM 0177	Principles of HTML/XML	4 cr
WDM 0179	Web Site Authoring Tools	3 cr
WDM 0181	Fundamentals of Cascading Style Sheets	2 cr
WDM 0183	Web Site Dynamics and Scripting	4 cr
WDM 0187	Web Graphics and Animation	4 cr
WDM 0188	Coding with XML	2 cr
		Total 30 cr

Associate of Applied Science Degree: Web Site Design and Management

4 to 5 semesters

Required Courses:

BI 0170	Introduction to Computers	3 cr
TGE 0158	Employment Strategies	2 cr
WDM 0176	Desktop Publishing/Multimedia	3 cr
WDM 0177	Principles of HTML/XML	4 cr
WDM 0179	Web Site Authoring Tools	3 cr
WDM 0181	Fundamentals of Cascading Style Sheets	2 cr
WDM 0183	Web Site Dynamics and Scripting	4 cr
WDM 0185	Digital Media Applications	3 cr
WDM 0187	Web Graphics and Animation	4 cr
WDM 0188	Coding with XML	2 cr
WDM 0190	Advanced Digital Imaging for the Web	3 cr
WDM 0192	Database Applications	3 cr
WDM 0195	Web Application Development	3 cr
WDM 0200	Scripting for the Web	3 cr
WDM 0202	3D Animation Techniques	3 cr
WDM 0210	Web Design Integration	3 cr
WDM 0211	Web Design Internship	4 cr

General Education Requirements:

ENGL 1101	English Composition	3 cr
ENGL 1102	Critical Reading and Writing (Goal 1)	3 cr
COMM 1101	Principles of Speech (Goal 2)	3 cr
MATH 1123	Math in Modern Society (Goal 3)	3 cr

Choose ONE of the following (Goal 11):

ECON 1100	Economic Issues	3 cr
ECON 2201	Principles of Macroeconomics	3 cr
ECON 2202	Principles of Microeconomics	3 cr

Choose ONE of the following (Goal 12):

PSYC 1101	Introduction to General Psychology	3 cr
SOC 1101	Introduction to Sociology	3 cr
		TOTAL: 70 cr

WDM Courses

WDM 0176 Desktop Publishing and 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 0170, or permission of instructor. F, S, Su

WDM 0177 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 0170 or permission of instructor. F

WDM 0179 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 0177 or permission of instructor. S

WDM 0181 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, cellular phones, and similar instruments. PREREQ: WDM 0177 and WDM 0179. F

WDM 0183 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 0176, WDM 0177, and WDM 0187. S

WDM 0185 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 0176 and WDM 0187. F

WDM 0187 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 0188 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 0190 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 0170 and WDM 0187. F

WDM 0192 Database Applications 3 credits. Introduction to commands, functions, and operators for extracting data. Includes retrieving, sorting, and manipulating data. Su

WDM 0195 Web Application Development 3 credits. Introductory course in technologies behind e-commerce from a nonprogrammer's viewpoint. Provides a basic understanding of how to provide server side security, create a simple shopping cart, and connect web pages to a database. Students use ASP.net, Visual Basic, and PHP in a visual environment. PREREQ: WDM 0177 and WDM 0188. S

WDM 0200 Scripting for the Web 3 credits. Client-side scripting (such as JavaScript) to create dynamic and compliant Web sites. Scripting to create content and modify the site's display characteristics. PREREQ: WDM 0177, WDM 0179, and WDM 0181. F

WDM 0202 3D Animation Techniques 3 credits. Introduction to 3D techniques and theory with application of the fundamentals of modeling, rendering, texturing, lighting, and animation to create 3D imagery and animation. PREREQ: WDM 0187 and WDM 0190. F

WDM 0210 Web Design Integration 3 credits. Applies and integrates knowledge from previous courses to develop professional, dynamic, portfolio-quality Web sites. Emphasizes search engine optimization, collaboration, communication, and critical thinking skills. S

WDM 0211 Web Design Internship 4 credits. Capstone course designed to use the three-stage development cycle: innovation, creation, and implementation. Provides field experience working in a team with business entities to design and implement Web sites based on objectives of the client. PREREQ: WDM 0190, WDM 0200. S

WDM 0296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

WDM 0298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

Welding

(2 to 4 Semester Program Options)

Program Coordinator and Master

Instructor: Humpherys

Instructors: Bloxham, Erickson

One certificate, one Advanced Technical Certificate, one Associate of Applied Science Degree and a Bachelor of Applied Technology Degree are available.

Objectives:

1. To prepare graduates for gainful employment in critical welding applications to include: pipeline, petro-chemical, power generation, sanitation, and high purity welding.
2. Additionally, graduates will be prepared to begin their welding careers by completing courses in math, theory, layout, and blueprint reading to augment their welding skills.

For a Program Information Packet showing descriptions of each option, course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to <http://www.isu.edu/ctech/welding.shtml>.

This program requires students to achieve certain grades in order to advance each semester. Specific information is available in the program's student handbook. Students must pass each welding core course with a letter grade of no less than a C (2.0) before continuing in the program.

Technical Certificate: Weldor General

(2 Semesters)

Required Courses:

WELD 0131	Welding Practice 1	12 cr
WELD 0132	Welding Practice II	12 cr
WELD 0140	Welding Theory	2 cr
WELD 0141	Mechanical Drawing	2 cr
WELD 0142	Blueprint Reading	2 cr
WELD 0143	Shop Math	2 cr
		TOTAL: 32 cr

Advanced Technical Certificate: Weldor-Fitter

(4 Semesters)

Required Courses:

WELD 0131	Welding Practice 1	12 cr
WELD 0132	Welding Practice II	12 cr
WELD 0140	Welding Theory	2 cr
WELD 0141	Mechanical Drawing	2 cr
WELD 0142	Blueprint Reading	2 cr

WELD 0143	Shop Math	2 cr
WELD 0231	Welding Practice III	13 cr
WELD 0232	Welding Practice IV	13 cr
WELD 0241	Metal Layout	3 cr
WELD 0243	Shop Math II	3 cr
/		TOTAL: 64 cr

Associate of Applied Science Degree: Welder-Fitter

Required Courses:

WELD 0131	Welding Practice I	12 cr
WELD 0132	Welding Practice II	12 cr
WELD 0140	Welding Theory	2 cr
WELD 0141	Mechanical Drawing	2 cr
WELD 0142	Blueprint Reading	2 cr
WELD 0143	Shop Math	2 cr
WELD 0231	Welding Practice III	13 cr
WELD 0232	Welding Practice IV	13 cr
WELD 0241	Metal Layout	3 cr
WELD 0243	Shop Math II	3 cr

General Education Requirements:

ENGL 1101	English Composition	3 cr
Goal 2		3 cr
Goal 3		3 cr
Goals 6, 7, 9, 10A, 11 or 12		3 cr
Goal 2-12		4 cr
TOTAL:		80 cr

Elective Courses:

MACH 0105	Machining Practices	1-4 cr
WELD 0105	Welding	1-4 cr

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 0105 Welding 1-4 credits. Introduction to and practice of arc welding. Metals and various types of welds. D

WELD 0131 Welding Practice I 12 credits. Welding practice techniques for successful fillet and groove welds in all positions utilizing SMAW E7018, GMAW ER70S-6, and FCAW E71T-1 processes and filler metals. F, S

WELD 0132 Welding Practice II 12 credits. Open groove welding practice to develop skills in preparation to weld pipe. Students will first become proficient on plate and progress into carbon steel pipe welding using E6010 and E7018 electrodes. PREREQ: WELD 0131. F, S

WELD 0140 Welding Theory 2 credits. Processing and manufacturing of ferrous and nonferrous metals; effect welding has on different metals, how to weld them and the heat treatment of them. F, S

WELD 0141 Mechanical Drawing 2 credits. Proper care and use of equipment, alphabet of lines, orthographic projections, dimensioning, section view drawing, freehand sketching of isometrics, pattern development and geometric construction. S

WELD 0142 Blueprint Reading 2 credits. Study of trades symbols, dimensioning from working drawings of the trade. Identification of

lines, views, materials and dimensions; study of basic drawings of welding trade. S

WELD 0143 Shop Math 12 credits. Basic study of trade math concentrating on basic arithmetic, common fractions, decimals, ratio, percentages, square root, and appropriate conversions as they apply to the welding trade. F, S

WELD 0159 Arc Welding 1-8 credits. Special course with emphasis on shop practice in the general areas of arc welding. Open for enrollment only with approval of the advisor, program coordinator and CTech counselor. (This is a special certificate option.) F, S

WELD 0231 Welding Practice III 13 credits. Low hydrogen, stainless steel, and pipe welding techniques in shop applications. PREREQ: WELD 0132. F

WELD 0232 Welding Practice IV 13 credits. GTAW process welding practice using both manual and automated orbital equipment, procedures, and techniques. Carbon and stainless steel pipe welding emphasized; includes high-purity and sanitary stainless welding. PREREQ: WELD 0231. F

WELD 0241 Metal Layout 3 credits. Introduction to geometric construction, principles of metal layout, special trade charts and tables, and basic slide rules. PREREQ: WELD 0141. F

WELD 0243 Shop Math II 3 credits. Continuation of WELD 143, with introduction to specific trade formulas, basic algebra, proportions, right triangle math, trigonometry, special trade charts and tables, and basic slide rules. PREREQ: WELD 0143. F, S

WELD 0296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

WELD 0298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of instructor. D

General Education Department

Chair: Rhoads

Technical General Education

Coordinator and Instructor: Lambert
Assistant Professor: Pein
Master Instructor: Packer
Advanced Instructor: Barclay
Senior Instructor: Allen
Instructor: Mundt

One semester emphasizing Technical General Education Basic coursework is incorporated into each program curriculum for students who do not demonstrate adequate academic skill to succeed in the occupational content courses of their programs. These students enroll for 1-16 credits of Technical General Education (TGE) basic courses prior to placement in their occupational-based curriculum. Students demonstrating academic proficiency in math and written communications will bypass this section of the curriculum.

Technical General Education core course content is designed in accordance with suggestions and directions from program instructors, advisory committees, and industry employers. TGE core coursework complements the student's technical training by providing education in business/technical writing, oral communication, building job search skills, and understanding human relations issues pertinent to the workplace.

Technical General Education core courses are taken concurrently with the student's program courses and may be required to complete the Technical Certificate, Advanced Technical Certificate, and/or Associate of Applied Science Degree. Students should consult their programs' required course lists to determine which of the TGE core courses must be taken.

For online information about this department and its programs, visit <http://www.isu.edu/ctech/student-services/tge.pdf>.

This program requires students to achieve certain grades in order to advance each semester. Specific information is available in the program's student handbook.

TGE Basic Courses

TGE 0100A Algebra I 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 0100C Critical Thinking 3 credits. Course teaches creative and critical thinking. This is an integrated approach that deals with thinking about thinking, imagining, and solving problems. Informal logic, induction, deduction, and prose analysis are emphasized. D

TGE 0100G 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 0100I Independent Study 1-2 credits. Course is designed to meet individual student needs. D

TGE 0100M Math 4 credits. Course provides an overview of complex fractions, decimals, and percents with an emphasis on practical application. D

TGE 0100R 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 0100S Strategies for Learning 2 credits. Memory skills, time management, critical thinking, learning styles, note and test taking strategies, and use of technology in successful completion of programs. Credit not applicable toward degree or certificate. D

TGE 0100T Technical Science 2 credits. Course provides instruction in the development of basic mathematical relationships and their use in the study of forces and force analogs in fluid, thermal, electrical, and mechanical systems. Force, work, power, rate, and resistance are studied. Basic trigonometric relationships are defined. D

TGE 0100W Writing 3 credits. Clear writing in standard, edited American English. Equivalent to ENGL0090. Not eligible for academic credit. D

TGE Core Courses

COMM 1101 Principles of Speech 3 credits. (see description in the Department of Communication and Rhetorical Studies, in the College of Arts and Sciences section of this Catalog.)

ENGL 1101 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 1123 Mathematics in Modern Society (see description in the Department of Mathematics, in the College of Arts and Sciences section of this Catalog.)

TGE 0151 Technical Writing I 2 credits. Course provides instruction in informal technical report writing and business correspondence. Includes grammar/punctuation review, introduction to word processing, and technical terminology/vocabulary building. D

TGE 0152 Technical Writing II 2 credits. Course provides instruction in application of formal technical report writing strategies and fundamentals of research. D

TGE 0158 Employment Strategies 1-2 credits. Comprehensive study and practice of job search activities, including company research, networking strategies, interviewing behavior, and writing the resume and business correspondence. Course culminates in the preparation of a professional portfolio. The two-credit option provides students with extensive interviewing experience in a variety of settings. D

TGE 0162 Orientation to Computer Technology 1 credit. Use of instructor software (Moodle) and on-line library services, Internet

research, use of BengalWeb and e-mail services. Overview of basic word processing features and the development of alphabetic and numeric information input through touch keyboarding. Open exit is available when student reaches proficiency rate established by program area. F,S

TGE 0257 Applied Ethics in Technology 1 credit. Ethical issues in engineering and contemporary technology that engineering technicians may face in professional practice. Topics include moral obligations and rights of society, employers, colleagues and clients; cost-benefit-risk analysis, safety and informed consent; the ethics of whistle-blowing. S

Adult Basic Education

Coordinator: Margaret Jacob

Instructors: Burton, Gooch, Graham,
Lish, Ostin, Ray

(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. Students may prepare for the COMPASS test and transition to college. The program offers different settings and methods to help students learn at their own rate in the style they prefer. Instruction includes both classes and independent study using books, audio and video materials, tutors, and computers. An Internet option is available.

General Educational Development (GED) -- This service assists people who have not received a high school diploma. In addition to assessment and instruction, the program administers Official Practice Tests as preparation for the GED. 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 vocational 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.

The Fire Service Certification program is designed to be an outreach program for people already in fire service occupations. Information may be obtained by contacting Idaho State Fire Service Training, Division of Professional Technical Education, PO Box 83720, Boise, ID 83720-0095 at (208) 223-3216.

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.

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.

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.

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 com-

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

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

The IRI coordinates activities among the National Information Assurance Training and Education Center (NIATEC), Simplot Decision Support Center (SDSC), Center for Innovative Technology in Archaeological Informatics (CITI-AI) and the Center for Innovative Technology in Mathematics, Science, and Social Sciences Learning (CITI-MSSSL). 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-MSSSTL – Center for Mathematics, Science, Social Sciences, and Technology Learning. The CITI-MSSSTL focus is on PK-16 learning in the current environment of accountability. The faculty of CITI-MSSSTL, 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-MSSSTL. The staff of CITI-MSSSTL 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 Emergency Management

Director: Mikitish

The Institute of Emergency Management, (IEM) located on the Idaho State University Meridian Campus, was approved by the Idaho State Board of Education in July 2003. The purpose of the Institute is to offer workshops, courses, certificates, and in the future degrees, to meet the professional and career development needs of Idahoans employed in or planning a career in Emergency Management. The Institute delivers courses statewide at various sites in Idaho communities, to meet the needs of local first responders. Here is the internet address of the IEM registration website: www.idahoprepares.com

Institute of Nuclear Science and Engineering

Idaho State University established an Institute of Nuclear Science and Engineering (INSE) with approval from the Idaho State Board of Education in 2003. The INSE objective is to expand research in nuclear engineering and science. The partners in this expanded research are the ISU College of Science and Engineering, the Office of Research, and the Center for Advanced

Energy Studies. CAES is a public/private partnership comprised of the three Idaho public universities, private industry, and the Idaho National Laboratory (INL). All of the faculty affiliated with INSE are also faculty of the Department of Mechanical and Nuclear Engineering in the College of Science and Engineering.

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

INSE coordinates a 2+2 Scholars Program as a special opportunity for students interested in pursuing a Bachelor of Science degree in nuclear engineering. In this program, engineering students spend their first two years at the main campus of Idaho State University, the University of Idaho, or Boise State University; then complete the remaining requirements at ISU, either in residence on the main campus in Pocatello, or at the ISU-Idaho Falls campus at University Place. Agencies within the U.S. nuclear industry, especially AREVA, the Department of Energy, and more recently, the Nuclear Regulatory Commission, have supported scholarships in this program. Participants are encouraged and assisted to find summer positions at INL.

For further information and a scholarship application, visit the Institute's scholarship web page at <http://www.isu.edu/departments/inse/tntp.html>

Idaho State University Administration

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Troy Kase.....	Director, Career Center.....	(208) 282-2380
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Shane Ostermeier.....	Director, New Student Orientation	(208) 282-3451
Don Paulson.....	Director, Counseling and Testing Services.....	(208) 282-2130
Lowell Richards.....	Executive Director, Idaho State University Student Unions and Student Activities	(208) 282-2427
Ron Solbrig.....	Director, Student Health Center	(208) 282-2330
Scott Turner.....	Interim Executive Director	(208) 282-4422
Craig Thompson.....	Director, University Housing	(208) 282-2120
Kerry Williamson.....	Director, Early Learning Center/Baby U	(208) 282-2769
(Vacant).....	Associate Dean, Student Affairs.....	(208) 282-2794

State Board of Education

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Richard Westerberg.....	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.

Abraszewski, Lee, Clinical Instructor, Family Practice Medicine. (2007)

Adamcik, Barbara, A.* Associate Vice President for Institutional Effectiveness; 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)

Adler, David G.,* Professor, Political Science. B.A. 1976, Michigan State University; Ph.D. 1982, University of Utah. (1985)

Agado, Brooke E., Clinical Instructor, Dental Hygiene. RDH, B.S. 2002, Idaho State University. (2006)

Aho, Ken A., Assistant Lecturer, Biological Sciences. (2007)

Allen, Diane, Senior Instructor, Technical General Education. B.A. 1975; M.A. 1981; Glassboro State College. (1999)

Allen, James A., Instructor, Paramedic Science. Respiratory Therapy Certificate 1964; Registered EMT/Paramedic 1978; Athletic Trainer Certificate 1983; Intermediate Paramedic Certificate, Basic EMT Instructor Certificate 1985; Advanced Cardiac Life Support Instructor 1990; Prehospital Life Support Certificate, Advanced Medical Life Support Certificate, Simulation Lab Certificate 2004. (2004)

Allen, Virginia B.,* Professor, Counseling. B.A. 1974, University of Montana; M.Ed. 1978, South Dakota State University; Ed.D. 1981, University of South Dakota. (1981)

Ames, Daniel,* Associate Professor, Geosciences. B.S. 1996; M.S. 1998; Ph.D. 2002, Utah State University. (2004)

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)

Anderson, Doyle D., Assistant Professor, Management. B.S. 1988, Montana Tech of the University of Montana; M.B.A. 1997, University of Saskatchewan. (2004)

Anderson, Scott E.,* Professor, Music; Director of Choral Activities. B.A. 1982, Whitworth College; M. Mus. 1984, Westminster Choir College; D.M.A. 1993, University of Missouri-Kansas City. (1992-2003; 2005)

Anderson, Sean K.,* Director, International Studies Program; Professor, Political Science; Adjunct Faculty, Sport Science and Physical Education. B.A. 1975, Western Washington University; M.B.A. 1978, University of Washington; MA 1991, Ph.D. 1993, University of Oklahoma. (1993)

Appleby, Karen M.,* Associate Professor, Sport Science and Physical Education. B.A. 1998, Hanover College; M.S. 1999, University of Tennessee, Knoxville; M.S. 2000; Ph.D. 2004, University of Tennessee, Knoxville. (2004)

- 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)
- Attebery, Brian L.,*** Professor, English; Adjunct Faculty, Music. A.B. 1974, College of Idaho; A.M. 1976, Ph.D. 1979, Brown University. (1982)
- Attebery, Jennifer E.,*** Director, Folklore Program; Professor, English. B.A. 1973, College of Idaho; M.A. 1974, Ph.D. 1985, Indiana University. (1992)
- Austin, Kristi,** Reference Librarian (equivalent rank, Assistant Professor), Library. B.A. 1983, University of Washington; M.L.S. 2002, Emporia State University. (1995)
- Averett, Colby J.,** Coordinator and Instructor, Electrical Technician Program. (2007)
- Aytes, Gregg 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)
- Bajracharya, Rajendra R., P.L.S.,** Program Coordinator and Associate Professor, Geomatics Technology. B.Sc. 1971, Trichandra College, Nepal; B.Sc. 1976, North East London Polytechnic, England; M.S. 1986, Ohio State University; Ph.D. 1997, University of Wisconsin-Madison. (2001)
- Ball, Jacob A.,** Instructor, Instrumentation and Automation Engineering Technology. (2007)
- Bañales, Victoria,** Director, Division of Continuing Education and Conferencing Services; Instructor. (2008)
- Barclay, Bryan,** Advanced Instructor, Technical General Education. B.S. 1980, Brigham Young University; M.S. 1987, University of Washington; Ph.D. 2001, Utah State University. (1999)
- Batacan, John M.,** Assistant Professor, Health & Nutrition Sciences. B.S. 1993, University of Puget Sound; M.H.E 1996, Idaho State University; Ed.S. 2007, University of Idaho. (2008)
- Baxter, Colden,*** Assistant Professor, Biological Sciences. B.A. 1993, University of Oregon; M.S. 1997, University of Montana; Ph.D. 2002, Oregon State University. (2004)
- Beachboard, John,*** Professor, Computer Information Systems. B.S. 1976, University of Arizona; M.S. 1990, Boston University; M.S. 1995, Ph.D. 1999, Syracuse University. (2001)
- Beachboard, Martine Robinson,** Associate Professor, Mass Communication. B.S. 1976, Northern Arizona University; B.A. 1990, University of Maryland; M.S. 1995; M.A. 1996, Syracuse University; Ph.D. 2008, Touro University International. (2001)
- Beamis, Don, Jr.,** Coordinator and Senior Instructor, Automotive Collision Repair and Refinishing. Certificate 1985; A.T. 1985, Idaho State University. (1997)
- Beard, David Volk,*** Professor, Computer Information Systems Department and Electrical Engineering and Computer Science Department. A.B. 1978, Hope College; M.S. 1981, Ph.D. 1985, University of Michigan Ann Arbor. (1995)
- 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)
- Bearden, Trudy A.,** Clinical Instructor, Family Practice Medicine. (2007)
- Beaty, Lawrence H.,** Coordinator, Energy Systems Engineering Technology. (2006)
- Beck, Susan,** Coordinator and Instructor, Massage Therapy. B.S. 1976, Colorado State University. (2006)
- Bennett, Instructor,** Counseling. (2008)
- Bennett, Byron L.,*** Assistant Professor, Chemistry. B.A. 1989, Cedarville College; Ph.D. 1997, University of Wyoming. (2007)
- Benson Jr., Charles Scott,*** NCAA Representative; Professor, Economics. B.A. 1972, University of California, Berkeley; M.A. 1979, Ph.D. 1988, University of California, Davis. (1986)
- Beran, Mary Lou,** Database Manager, Library (equivalent rank, Professor). B.S. 1963, Mankato State College; M. Libr. 1968, University of Washington. (1968)
- Bernabee, Kirsten,** Visiting Assistant Lecturer, Physics (2009)
- Bezick, Mark H.,** Assistant Professor, Accounting. BBA 1974, Cleveland State University; MBA 1978, Case Western Reserve University; CPA, Ohio, 1977. (1998)
- Bhushan, Alok,*** Assistant Department Chair and Professor, Biomedical and Biomedical and Pharmaceutical Sciences. B.S. 1975, M.S. 1977, University of Delhi; Ph.D. 1982, Punjab Agricultural University. (1998)
- Bigelow, James,*** Associate Professor, Biomedical and Biomedical and Pharmaceutical Sciences. B.S. 1979, University of Illinois at Urbana-Champaign; Ph.D. 1985, Indiana University at Bloomington. (2004)
- Biorn, Camille,** Clinical Assistant Professor, Dental Hygiene. B.S. 1997, Idaho State University. (2001)
- Bird, Norma,** Coordinator and Master Instructor, Medical Assisting. B.S. 2000; M.Ed. 2001, Idaho State University. (1997)
- Bishop, Randy L.,** Clinical Associate Professor, Audiology. B.A. 1987; M.S. 1990, University of Utah. (1999)
- Blair, Terri J.,** Associate Lecturer, English and Philosophy. B.A. 1999; M.A. 2000, Eastern Illinois University. (2000)
- Blakeman, David,** Program Coordinator and Instructor, Respiratory Therapy. A.S. 1994, Lassen College; A.S. 1997, Butte College; B.S. 2008, Idaho State University. (2009)
- Blanton, Cynthia A.,** Assistant Professor, Health and Nutrition Sciences; Registered Dietician. B.S. 1990, California State University, Northridge; Ph.D. 2000, University of California, Davis. (2007)
- Bloxham, Lucas,** Instructor, Welding. Technical Certificate (2) 1997, Idaho State University. (2005)
- Boes, Richard F.,*** Professor, Accounting. B.S. 1970, M.B.A. 1971, University of Utah; Ph.D. 1978, Michigan State University. (1977)
- Bond, Kori R.,*** Professor, Music. B.A. & B.S., 1992, Walla Walla College; M.Mus. 1994, Northern Illinois University; D.Mus. 1999, Indiana University. (1999)
- Borzadek, Eliza,** Clinical Assistant Professor, Family Practice Medicine. (2007)
- Bosworth, Kenneth W.,*** Professor, Computer Science. B.S. 1977, M.S. 1980, Ph.D. 1984, Rensselaer Polytechnic Institute. (1992)
- Bowen, Randy,** Assistant Lecturer, Mathematics. (2008)
- Bowyer, R. Terry,*** Department Chair, Biological Sciences; Professor, Ecology. B.S. 1970; M.S. 1976, Humboldt State University; Ph.D. 1985, University of Michigan. (2004)
- Boyd, Linda Diane,*** Director, Graduate Studies; Professor, Dental Hygiene. A.S., 1978, Mt. Hood Community College; B.S. 1995, Oregon State University; M.S. 1998, Tufts University; Ed.D. 2005, Portland State University. (2005)
- Brey, Richard R.,*** Professor, Health Physics. B.S. 1988, M.S. 1990, Ph.D. 1994, Purdue University. (1994)

- Broadhead, KayLynn**, Senior Lecturer, Communication and Rhetorical Studies. B.S. 1975, Brigham Young University; M.A. 1991, Idaho State University. (1991)
- Brocket, Jeff**, Assistant Professor, Audiology. B.S. 1984, University of Idaho; M.S. 1987; Ed.S. 1996; Ed.D. 2003, Idaho State University. (1988)
- Brook, Susan J.**, RNC, Clinical Assistant Professor, Nursing. A.S. 1985, Ricks College; B.S. 1987, University of Utah; M.S. 2006, Idaho State University. (2006)
- Brookman, Jeffrey T.**, Associate Professor, Finance. B.S. 1987, University of Utah; M.B.A. 1991, Ph.D. 2001, University of Oregon. (2007)
- Brooks, John Patrick**,* Professor, Music; Band Director. B.S. 1980, University of Illinois; M. Mus. 1985, D.M.A. 1995, University of Cincinnati College-Conservatory of Music. (1991)
- Brown**, Instructor, Health Occupations Department. (2008)
- Brumfield, Jennie**, Clinical Coordinator and Instructor, Practical Nursing. B.S. 2008, Idaho State University. (2008)
- Brumley, Michele R.**,* Assistant Professor, Psychology. B.A. 1999, DePaul University; Ph.D. 2005, University of Iowa.
- Buffaloe, Kathy Jo**, Coordinator and Advanced Instructor, Laser/Electro-Optics Technology. A.A.S. 1992, Idaho State University. (1999)
- Buffaloe, Richard S. (Rick)**, Advanced Instructor, Robotics and Communication Systems Technology. A.A.S., 1990, Idaho State University. (2000)
- Bullock, Ivan R.**, Coordinator and Master Instructor, Diesel/Diesel Electric Technology; Certificate 1969, ITT Technical Institute. (1995)
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- Doyle, Ryan**, Dental Sciences
- Driver, Paul**, Pharmacy Practice and Administrative Sciences
- Duggan, Maureen**, Communication Sciences & Disorders, and Education of the Deaf
- Duncan, Ed**, Dental Sciences
- Dye, Bruce**, Radiographic Science
- Dye, Joel**, Family Medicine
- Dyer, Donald A.**, Family Medicine
- Eaton, Judy**, Health Care Administration
- Eder, William R.**, Nursing
- Edwards, Brian S.**, Nursing
- Edwards, Mark T.**, Education
- Eide, Tami**, Pharmacy Practice and Administrative Sciences
- Eisentrager, David**, Biological Sciences
- Elliott, Richard**, Physician Assistant Studies
- Ellis, Wayne**, Dental Sciences
- Elsethagen**, Communication Sciences & Disorders, and Education of the Deaf
- Endo, Ronald**, Pharmacy Practice and Administrative Sciences
- Eng, Allen**, Radiographic Science
- Engelbrecht, Emily B.**, Pharmacy Practice and Administrative Sciences
- Ennis, Kimberly**, Communication Sciences & Disorders, and Education of the Deaf
- Eppich, Monte**, Dental Sciences
- Eshelman, Charlotte**, Nursing
- Espiritu, Samuel G.**, Pharmacy Practice and Administrative Sciences
- Espy, Michelle**, Physics
- Falkner, Lynn**, Physician Assistant Studies
- Fan, Jingyang**, Pharmacy Practice and Administrative Sciences
- Farfan, Eduardo**, Physics
- Farnsworth, Judy**, Nursing
- Farrell, Patrick E.**, Family Medicine
- Favor, Douglas G.**, Family Medicine
- Fayle-Endo, Dale**, Pharmacy Practice and Administrative Sciences
- Fearn, Linda H.**, Nursing
- Ferguson, Richard**, Dental Sciences
- Fernandez, Luis**, Family Practice Residency Program

- Field, Clifford J.**, Family Medicine; Pharmacy Practice and Administrative Sciences; Physician Assistant Studies; Sport Science and Physical Education
- Fields, Gail E.**, Physician Assistant Studies
- Filicetti, Mark**, Pharmacy Practice and Administrative Sciences
- Fischel, David R.**, Family Medicine
- Fischel, Melanie**, Nursing
- Fisher, Edward E.**, Family Medicine
- Fitzhugh, William**, Nursing
- Fornarotto, John M.**, Family Medicine; Physician Assistant Studies
- Foster, Beth A.**, Pharmacy Practice and Administrative Sciences
- Foster, James A.**, Biological Sciences
- Foster, Lorin Paul**, Pharmacy Practice and Administrative Sciences
- Fowler, Randall S.**, Family Medicine
- Fox, Robert**, Pharmacy Practice and Administrative Sciences
- Francis, James Edward**, Pharmacy Practice and Administrative Sciences
- Francisco, Michael L.**, Family Medicine; Physician Assistant Studies
- Franckowiak, Robert**, Physics
- Frank**, Biological Sciences
- Freeby, Nancy**, Communication Sciences & Disorders, and Education of the Deaf
- Freshwater, Greg**, Physician Assistant Studies
- Frisch, Donald**, Pharmacy Practice and Administrative Sciences
- Fugit, Randolph**, Pharmacy Practice and Administrative Sciences
- Fujita**, Biological Sciences
- Fuller, Dennis**, Pharmacy Practice and Administrative Sciences
- Gabica, Martin**, Nursing
- Galindo, Edward**, Biological Sciences
- Galloway, Dorothy E.**, Pharmacy Practice and Administrative Sciences
- Galloway, James M.**,* Pharmacy Practice and Administrative Sciences
- Gardner, Valerie**, Pharmacy Practice and Administrative Sciences
- Garland, Erich**, Nursing
- Garner, Jennifer**, Pharmacy Practice and Administrative Sciences
- Garrabrandt, David**, Pharmacy Practice and Administrative Sciences
- Garrard, Elwyn A.**, Pharmacy Practice and Administrative Sciences
- Garrison**, Biological Sciences
- Gebo, Dave**, Pharmacy Practice and Administrative Sciences
- Gebo-Shaver, Lorri D.**, Pharmacy Practice and Administrative Sciences
- George, Stephen**, Pharmacy Practice and Administrative Sciences
- Gerard, Mary E.**, Family Medicine; Physical and Occupational Therapy; Physician Assistant Studies
- Gibbs, Nancy L.**,* Pharmacy Practice and Administrative Sciences
- Gilbert, Doug**, Nursing
- Gill, Ronald**, Biological Sciences
- Gillespie, Todd**, Pharmacy Practice and Administrative Sciences
- Gobel, Ginny**, Nursing
- Goff, Angela D.**,* Pharmacy Practice and Administrative Sciences
- Goldman, Barbara Joan**, Pharmacy Practice and Administrative Sciences
- Goldspiel, Barry R.**,* Pharmacy Practice and Administrative Sciences
- Goodwin, R. Eric**, Communication Sciences & Disorders, and Education of the Deaf
- Goy, Brett**, Physician Assistant Studies
- Goy, Gary**, Pharmacy Practice and Administrative Sciences
- Graff, Steven C.**, Pharmacy Practice and Administrative Sciences
- Graham, Garry**, Pharmacy Practice and Administrative Sciences
- Grandee, Ronda**, Physician Assistant Studies
- Gregory, Lisa L.**, Pharmacy Practice and Administrative Sciences
- Grey, Phoebe**, Nursing
- Griswold**, Biological Sciences
- Groda-Lewis, Mary**, Nursing
- Gronholz, Jill**, Physician Assistant Studies
- Gross, Mary Elizabeth**,* Pharmacy Practice and Administrative Sciences
- Grunden, John W.**,* Pharmacy Practice and Administrative Sciences
- Grunig, Tammy**, Communication Sciences & Disorders, and Education of the Deaf.
- Hackworth, K. Bobi**, Sociology, Social Work and Criminal Justice
- Hadlock, David R.**, Family Medicine; Physician Assistant Studies
- Hall, Morris**, Physics
- Hampsten, Jeff**, Sport Science and Physical Education
- Hansen, George**, Military Science
- Hansen, Richard**, Research Affiliate Faculty, Anthropology
- Hanson, Cheryl, AIA**, Art and Pre-Architecture
- Hardin, Creighton A.**, Pharmacy Practice and Administrative Sciences
- Harker, Yale**, Physics
- Harmer, Mickey K.**, Sociology, Social Work and Criminal Justice
- Harris, Glenn Ferguson**, Family Medicine
- Harris, Kenneth E.**, Nursing
- Haskell, Jeffrey**, Nursing
- Hearn, Richard**, Family Medicine; Physician Assistant Studies
- Heckard, Ralph**, Pharmacy Practice and Administrative Sciences; Physician Assistant Studies
- Heckathorn, Debbie**, Pharmacy Practice and Administrative Sciences
- Heilman, June E.**, Family Medicine; Physician Assistant Studies
- Heinz-Unger, Patricia**, Communication Sciences & Disorders, and Education of the Deaf
- Henbest, Michael**, Nursing
- Herout, Peter Michael**, Pharmacy Practice and Administrative Sciences
- Herrington, Anna Marie**,* Pharmacy Practice and Administrative Sciences
- Hetrick, Brian**, Sport Science and Physical Education
- Hill, Kevin S.**, Family Medicine
- Hines, Alan**, Pharmacy Practice and Administrative Sciences
- Hobbs, Ross**, Sociology, Social Work, and Criminal Justice
- Hogan, William E.**, Family Medicine; Pharmacy Practice and Administrative Sciences

- Hogenauer, Alfred F.**, Pharmacy Practice and Administrative Sciences
- Holland, David**, Nursing
- Holland, Jerry**, Pharmacy Practice and Administrative Sciences
- Holman, Richard**, Engineering
- Holman, Robert**, Family Medicine
- Hopkins, Tim**, Dental Sciences
- Horton, Jon D.**,* Pharmacy Practice and Administrative Sciences
- Hubler, Gary L.**,* Pharmacy Practice and Administrative Sciences
- Hulisz, Darrell**, Pharmacy Practice and Administrative Sciences
- Hunt, Winslow Robert**, Family Medicine
- Hyde, E. F.**, Family Medicine
- Ingram**, Biological Sciences
- Irwin, James**, Family Medicine
- Isaacs, Lori**, Pharmacy Practice and Administrative Sciences
- Jackman, Troy**, Pharmacy Practice and Administrative Sciences
- Jackson, Cary Vincent**, Family Medicine; Physician Assistant Studies
- Jackson, Melissa**, Physical and Occupational Therapy
- James, Anthony**, Physics
- Jensen, Lloyd R.**, Pharmacy Practice and Administrative Sciences
- Jett, Gail M.**, Nursing
- Jeter, Charisse**, Biological Sciences
- Johakin, William L.**, Nursing
- Johnsen, Eric**, Counseling
- Johnson, Eric**, Dental Sciences
- Johnson, Renee**, Dental Hygiene
- Johnson, Rodney**, Sociology, Social Work and Criminal Justice
- Jones, James L.**, Physics
- Jones-Howard, Hope**, Biological Sciences
- Joseph, Anthony**, Family Practice Residency Program
- Judd, Victoria**, Physician Assistant Studies
- Kane, Sally**, Dental Hygiene
- Kang-Kimm, Esther**, Pharmacy Practice and Administrative Sciences
- Katz, Sharon**,* Physician Assistant Studies
- Keener, William K.**,* Biological Sciences
- Kelly, Deborah**, Pharmacy Practice and Administrative Sciences
- Kempers, Kevin**, Dental Sciences
- Kennedy, Robert Michael**, Family Medicine; Physician Assistant Studies
- Kent, Robin**, Pharmacy Practice and Administrative Sciences
- Kerr, Caroline**, Communication Sciences & Disorders, and Education of the Deaf
- Keys, Dell**, Nursing
- Khatain, Kenneth**, Pharmacy Practice and Administrative Sciences
- Khatain, Kenneth**, Pharmacy Practice and Administrative Sciences
- Killian, Scott**, Pharmacy Practice and Administrative Sciences
- King, Janet**, Nursing
- Kintzoglou, Alexander**,* Pharmacy Practice and Administrative Sciences
- Kittridge, Shawna L.**, Pharmacy Practice and Administrative Sciences
- Knouf, Jerry**, Physician Assistant Studies
- Koenig, Steve**, Pharmacy Practice and Administrative Sciences
- Konrad, Donald**, Family Medicine; Physician Assistant Studies
- Kottkey, Diana L.**, Nursing
- Krasner, Charles**, Pharmacy Practice and Administrative Sciences
- Kuhl, David E.**,* Pharmacy Practice and Administrative Sciences
- Kuntz, Mel A.**, Geosciences
- Kuo, Grace**, Pharmacy Practice and Administrative Sciences
- Kuyumjian, Arpi G.**,* Pharmacy Practice and Administrative Sciences
- Lackey, John M.**, Family Medicine
- Lamintina, Sheryl**, Biological Sciences
- Langley, Karen S.**, Physics
- LaPatra, Scott E.**, Biological Sciences
- LaPlante, Gedeon W.**, Pharmacy Practice and Administrative Sciences
- Lapolla, Vincent N.**, Dental Hygiene
- Larson, Zann**, Military Science
- Lassere, John**, Family Medicine; Physician Assistant Studies
- Lawless, Charles P.**, Family Medicine
- Lawless, Chuck D.**, Pharmacy Practice and Administrative Sciences
- Lawless, Julie**, Pharmacy Practice and Administrative Sciences
- Lawrence, Grace**, Pharmacy Practice and Administrative Sciences
- Leach, Victoria**, Pharmacy Practice and Administrative Sciences
- Leavitt, Casey**, Dental Sciences
- Lee, Brent**, Dental Sciences
- Lee, Carlton K.K.**,* Pharmacy Practice and Administrative Sciences
- Lee, David K.**, Pharmacy Practice and Administrative Sciences
- Lee, Edith K.**, Pharmacy Practice and Administrative Sciences
- Lee, Hope**, Biological Sciences
- Lee, Susan Clarke**, Family Medicine
- Leibrock, Larry R.**, Informatics Research Institute
- Lemon, Chris**, Pharmacy Practice and Administrative Sciences
- Lenington, Michael**, Biological Sciences
- Lile, James Michael**,* Pharmacy Practice and Administrative Sciences
- Livingston, John M.**, Physician Assistant Studies
- Lobb, Robert S.**, Physician Assistant Studies
- Long, Robert**, Pharmacy Practice and Administrative Sciences
- Longley, Dennis**, Informatics Research Institute
- Lovetro, Michael D.**, Pharmacy Practice and Administrative Sciences
- Loxterman, Janet**, Biological Sciences
- Luedtke, Karla**, Dental Hygiene
- Luke, Sally Louise**, Nursing
- Lyons, Heidi Lynn**, Education
- Macbeth, Tamzen**, Biological Sciences
- Mack, Maureen C.**, Family Medicine; Pharmacy Practice and Administrative Sciences
- Mackenzie, Debora**, Pharmacy Practice and Administrative Sciences
- Magdanz, Stephanie**, Pharmacy Practice and Administrative Sciences
- Malm, Cynthia**, Law Enforcement
- Malm, Scott**, Physician Assistant Studies

- Maloff, Stephen M.**, Family Medicine; Communication Sciences & Disorders, and Education of the Deaf
- Malone, Richard E.**,* Pharmacy Practice and Administrative Sciences
- Mambourg, Scott E.**, Pharmacy Practice and Administrative Sciences
- Mansfield, Mark**, Family Medicine
- Manske, Thomas**, Pharmacy Practice and Administrative Sciences
- Marchetti, Debbie**, Pharmacy Practice and Administrative Sciences
- Maricle-Kuwahara, Lynda J.**, Nursing
- Marsh, Frederick**, Pharmacy Practice and Administrative Sciences; Physician Assistant Studies
- Martel, Edward James**,* Pharmacy Practice and Administrative Sciences
- Martens, Laurence**, Physician Assistant Studies
- Mathis, Lisa Crowley**, Pharmacy Practice and Administrative Sciences
- Matkin, Susan**, Communication Sciences & Disorders, and Education of the Deaf
- Matocq, Marjorie**, Biological Sciences
- Matunas, John**, Dental Sciences
- Maxwell, Preston**, Pharmacy Practice and Administrative Sciences
- May, Michael B.**, Education
- Maynard, Richard M.**, Family Medicine; Physician Assistant Studies
- McAndrews Jr., Kenneth L.**, Pharmacy Practice and Administrative Sciences
- McComas, Bruce**, Physician Assistant Studies
- McCormack, John C.**, Pharmacy Practice and Administrative Sciences; Physician Assistant Studies
- McDowell, Eric**, Pharmacy Practice and Administrative Sciences
- McElhinney, Gwynne**, Communication Sciences & Disorders, and Education of the Deaf
- McEvoy, Barbara**,* Pharmacy Practice and Administrative Sciences
- McGee, Kara**, Physician Assistant Studies
- McGee, Kraig C.**, Family Medicine; Physician Assistant Studies; Communication Sciences & Disorders, and Education of the Deaf
- McGonigle, Terry**, Biological Sciences
- McGrath, Holly**, Pharmacy Practice and Administrative Sciences
- McNally, Jamey**, Physician Assistant Studies
- McInturff, Don E.**, Pharmacy Practice and Administrative Sciences
- McKee, Deborah K.**, Pharmacy Practice and Administrative Sciences
- McKie, Robert**, Pharmacy Practice and Administrative Sciences
- McKinlay, Kirt M.**, Physician Assistant Studies
- McMinn, Jeff**, Dental Sciences
- McMurray, John**, Dental Sciences
- McRoberts, Andrew**, Physician Assistant Studies
- McRoberts, Drew**, Family Medicine
- Meadors, Larry**, Dental Sciences
- Meadows, Joan**, Nursing
- Mecham, Joshua**, Pharmacy Practice and Administrative Sciences
- Mello, James**, Physician Assistant Studies
- Merrill, Frank**, Physics
- Meyer, Larry**, Pharmacy Practice and Administrative Sciences
- Miano, Giovanni (John)**, Pharmacy Practice and Administrative Sciences
- Mickelson, Michael R.**, Family Medicine, Physician Assistant Studies
- Middlebrooks, Mark**,* Pharmacy Practice and Administrative Sciences
- Mikesell, Gail R.**, Nursing
- Milbrandt, Mariette K.**, Communication Sciences & Disorders, and Education of the Deaf
- Milford, Gordon**, Pharmacy Practice and Administrative Sciences
- Mill, Gerald P.**, Communication Sciences & Disorders, and Education of the Deaf
- Miller, A. E.**, Nursing
- Miller, Allen**, Pharmacy Practice and Administrative Sciences
- Miller, Dru**, Communication Sciences & Disorders, and Education of the Deaf
- Miller, Ronald E.**, Physician Assistant Studies
- Mills, Allan**, Pharmacy Practice and Administrative Sciences
- Millward, Steven**, Physics
- Minnich, Brian**, Pharmacy Practice and Administrative Sciences
- Minshall, Judy N.**, Biological Sciences
- Mokaddem, Samir**, Pharmacy Practice and Administrative Sciences
- Moore, Diane**, Sociology, Social Work and Criminal Justice
- Morello, Candis M.**, Pharmacy Practice and Administrative Sciences
- Morgan, Matthew C.**, Communication Sciences & Disorders, and Education of the Deaf
- Morreale, Suzanne**, Pharmacy Practice and Administrative Sciences
- Morris, Maj. Peter S.**, Military Science/ U.S. Army ROTC
- Morrison, Bruce**, Dental Sciences
- Motley, Carla M.**, Communication Sciences & Disorders, and Education of the Deaf
- Moulton, Ethan**, Dental Sciences
- Moulton, Rolf T.**, Informatics Research Institute
- Moyer, Judith A.**, Nursing
- Munk, L. Kris**, Dental Sciences
- Murphy, Patti**, Nursing
- Murray, David**, Physician Assistant Studies
- Murray, William Hugh**, Informatics Research Institute
- Naftz, Rhonda**, Education
- Nash, Barbara**, Sociology, Social Work, and Criminal Justice
- Nelson, David**, Pharmacy Practice and Administrative Sciences
- Nelson, Eric**, Dental Sciences
- Nelson, Kathleen**, Nursing
- Newby, Deborah**, Biological Sciences
- Newcombe, Edward H.**, Nursing
- Newhouse, Kenneth E.**, Family Medicine; Physician Assistant Studies
- Newkirk, Sue**, Nursing
- Newsom, Robert D.**, Pharmacy Practice and Administrative Sciences
- Newsom, Teresa J.**, Pharmacy Practice and Administrative Sciences
- Newton, Joel**, Dental Sciences
- Nguyen, Buu-An Ngoc**, Pharmacy Practice and Administrative Sciences

- Nguyen, Jim**, Pharmacy Practice and Administrative Sciences
- Nguyen, MongTu Pham**, Pharmacy Practice and Administrative Sciences
- Nielsen, Diane**, Physician Assistant Studies
- Nieschmidt**, Physics
- Nigg, David**, Physics
- Norman, Douglas**, Family Medicine
- O'Byrne, Brian E.**, Physician Assistant Studies
- O'Donnell, Jody S.**, Communication Sciences & Disorders, and Education of the Deaf
- O'Neil, Jan**, Pharmacy Practice and Administrative Sciences
- O'Rear, James H.**, Physics
- Ogden, Heath**, Biological Sciences
- Olenick, Kelley W.**, Communication Sciences & Disorders, and Education of the Deaf
- Olgilvie, Anne**, Nursing
- Olsen, Richard**, Biomedical and Pharmaceutical Sciences
- Olsen-Fisher, Myrna**, Nursing
- Olyaei, Ali,*** Pharmacy Practice and Administrative Sciences
- Ostrom, Mary Beth**, Pharmacy Practice and Administrative Sciences; Physician Assistant Studies
- Otis, Mark**, Physics
- Otto, Paul**, Pharmacy Practice and Administrative Sciences
- Overstreet, Renee**, Pharmacy Practice and Administrative Sciences
- Owens, Kathy**, Nursing
- Pallini, Christine**, Pharmacy Practice and Administrative Sciences
- Panter, Liz**, Sport Science and Physical Education
- Parmley, Willis**, Family Medicine
- Parrish, William**, Dental Hygiene
- Parry, David**, Family Medicine; Physician Assistant Studies
- Patchin, Gary**, Pharmacy Practice and Administrative Sciences
- Patel, Gita**, Pharmacy Practice and Administrative Sciences
- Payne, Anne**, Nursing
- Pehrsson, Dale**, Counseling
- Perkel, Jeffrey M.**, Biological Sciences
- Peterson, David A.**, Nursing
- Peterson, Glade**, Dental Sciences
- Peterson, Grant**, Physician Assistant Studies
- Pierce, Becky**, Biological Sciences
- Pilley, George**, Communication Sciences & Disorders, and Education of the Deaf
- Plummer, Mitchell A.**, Geosciences
- Podany Jr., Joseph E.**, Physician Assistant Studies
- Polson, Preston**, Dental Sciences
- Poreba, Jan**, Pharmacy Practice and Administrative Sciences
- Porter, Chris**, Nursing
- Porter, John**, Pharmacy Practice and Administrative Sciences
- Porter, Warren**, Biological Sciences
- Poulson, Neil J.**, Biological Sciences
- Powers, Vicki**, Sociology, Social Work, and Criminal Justice
- Price, Richard N.**, Pharmacy Practice and Administrative Sciences
- Proctor, Brian Dale**, Physician Assistant Studies
- Przybylski, Kevin Gerard,*** Pharmacy Practice and Administrative Sciences
- Ptacek, Margaret**, Biological Sciences
- Pucino Jr., Frank,*** Pharmacy Practice and Administrative Sciences
- Pullen, Gary K.**, Pharmacy Practice and Administrative Sciences
- Pyeatte, Michele A.**, Pharmacy Practice and Administrative Sciences
- Quarder, Henrike Swantje**, Biological Sciences and Chemistry
- Raboy, Victor**, Biological Sciences
- Rakel, David P.**, Family Medicine
- Ramos, Cathy**, Pharmacy Practice and Administrative Sciences
- Rassuchine, Alex**, Pharmacy Practice and Administrative Sciences
- Ravsten, Deric**, Pharmacy Practice and Administrative Sciences
- Ray, Andy**, Biological Sciences
- Reddish, Ed**, Pharmacy Practice and Administrative Sciences
- Reed, David**, Biological Sciences
- Reedy-Maschner, Katherine**, Anthropology
- Reichman, John B.**, Family Medicine
- Reynolds, Linda L.**, Pharmacy Practice and Administrative Sciences
- Reynolds, Timothy D.**, Biological Sciences
- Rice, Margaret L.**, Pharmacy Practice and Administrative Sciences
- Rich, Bryce**, Physics
- Rieger, Craig**, Electrical Engineering
- Ritter, Paul D.**, Physics
- Roberto, Francisco Figueroa**, Biological Sciences
- Roberts, Barbara**, Physician Assistant Studies
- Rohner, Clinton D.**, Pharmacy Practice and Administrative Sciences
- Romero, Neva Christal**, Education
- Roney, Tim**, Physics
- Rosentreter, Roger**, Biological Sciences
- Ross, Teri**, Communication Sciences & Disorders, and Education of the Deaf
- Rossi, Joseph P.,*** Pharmacy Practice and Administrative Sciences
- Ruffing, Rachele**, Communication Sciences & Disorders, and Education of the Deaf
- Rufi, Gene V.**, Family Medicine
- Ruggerio, Robert J.,*** Pharmacy Practice and Administrative Sciences
- Runck, Amy**, Biological Sciences
- Ruppel, Linda**, Dental Sciences
- Rusch, Kay Miller**, Nursing
- Ryan, Kenneth C.**, Family Medicine
- Ryono, Jeanne**, Pharmacy Practice and Administrative Sciences
- Sachdeo, Rajesh C.,*** Pharmacy Practice and Administrative Sciences
- Sackett, Marlene N.**, Nursing
- Salisbury, Catherine**, Dental Hygiene
- Salness, Ty**, Pharmacy Practice and Administrative Sciences
- Sandoval, Rheta A.**, Pharmacy Practice and Administrative Sciences
- Santos, Tim**, Pharmacy Practice and Administrative Sciences
- Sargeant, Sarah**, Radiographic Science
- Sayre, Tyler**, Radiographic Sciences
- Schafer, Thomas R.**, Pharmacy Practice and Administrative Sciences
- Schaftel, Hershel D.**, Pharmacy Practice and Administrative Sciences

- Schiffman, Philip L.**, Pharmacy Practice and Administrative Sciences**
- Schmidt, Jim L.**, Counseling**
- Schneider, Tracy N.**, Pharmacy Practice and Administrative Sciences**
- Scholes, Chris, Physician Assistant Studies**
- Schrader, Brad, Physics**
- Schroeder, James, Physician Assistant Studies**
- Schubert, William, Family Medicine**
- Schuerman, Tina C.**, Biological Sciences**
- Schwan, Thomas G.**, Biological Sciences**
- Scoville, Craig, Biological Sciences**
- Seaman, R. Lynn Greenberg,*, Pharmacy Practice and Administrative Sciences**
- Sedlmayer, George, Pharmacy Practice and Administrative Sciences**
- Selznick, Hugh, Family Medicine; Physician Assistant Studies**
- Sena, Gary, Physician Assistant Studies**
- Seyler, Michael, Dental Sciences**
- Sharp, Linda, Sociology, Social Work and Criminal Justice**
- Shaw, James F.**, Family Medicine**
- Shell, Debra, Biological Sciences**
- Shelton, Jodi, Sociology, Social Work and Criminal Justice**
- Sherwin, Jo-Ann, Geosciences**
- Short, Rande, Physician Assistant Studies**
- Slay, Jill, Informatics Research Institute**
- Smith, David, Nursing**
- Smith Jr., Laurens H.**, Biological Sciences**
- Smith, Robert W.**, Geosciences**
- Smith, Ty, Family Medicine**
- Snapp, Kay, Nursing**
- Solbrig, Ronald, Director, Student Health Center; Affiliate Faculty, Family Medicine and Physician Assistant Studies**
- Sorensen, Michele, Sport Science and Physical Education**
- Spall, Jane, Nursing**
- Sparrell, Marvin, Nursing**
- Springer, LeAnn M.**, Communication Sciences & Disorders, and Education of the Deaf**
- Spritzer, David M.**, Nursing; Physician Assistant Studies**
- Stander, Michael D.**, Pharmacy Practice and Administrative Sciences**
- Standley, Elizabeth J.**, Pharmacy Practice and Administrative Sciences**
- Staples, Mary E.**, Pharmacy Practice and Administrative Sciences**
- Stark, Nola, Nursing**
- Stauts, Braden, Dental Sciences**
- Stephens, George H.**, Family Medicine**
- Stephens, James D.**, Geosciences**
- Stephenson, Thomas, Biological Sciences**
- Stephenson-Foltz, Leslie, Sociology, Social Work and Criminal Justice**
- Stevens, Dennis, Biological Sciences**
- Stevens, Matt, Communication Sciences & Disorders, and Education of the Deaf**
- Stephens, Steve, Psychology**
- Stewart, Kelley, Biological Sciences**
- Stille, Kristine A.**, Pharmacy Practice and Administrative Sciences**
- Stocking, Lisa, Family Medicine**
- Stone, Bob, Nursing**
- Stoutin, Sherry Dunn, Nursing**
- Strong, Rebecca Ann, Communication Sciences & Disorders, and Education of the Deaf**
- Struhs, Anna, Clinical Affiliate Faculty, Radiographic Science**
- Stubbs, Communication Sciences & Disorders, and Education of the Deaf**
- Stucki, Kristen, Pharmacy Practice and Administrative Sciences**
- Sturmak, Michael, Communication Sciences & Disorders, and Education of the Deaf**
- Sugden, Elizabeth, Nursing**
- Sullenger, Dorsie, Pharmacy Practice and Administrative Sciences**
- Suri, Jasjit, Electrical Engineering and Computer Science**
- Susla, Gregory M.**, Pharmacy Practice and Administrative Sciences**
- Sutton, Doug, Dental Sciences**
- Tadahara, Sami, Sports Science and Physical Education**
- Talboy, Frank, Pharmacy Practice and Administrative Sciences**
- Talboy, Glen E.**, Nursing**
- Tanner, Martha, Family Medicine; Physician Assistant Studies**
- Tarnasky, William G.**, Physician Assistant Studies**
- Taybos, George, Dental Sciences**
- Taylor, Carol, Nursing**
- Taylor, Donna, Pharmacy Practice and Administrative Sciences**
- Taylor, Timothy O.**, Physician Assistant Studies**
- Tefferi, Josephine, Pharmacy Practice and Administrative Sciences**
- Thane, Andrew, Pharmacy Practice and Administrative Sciences**
- Theise, Kristine L.**, Nursing**
- Thomas, Grant, Sociology, Social Work and Criminal Justice**
- Thomas, John H.**, Family Medicine; Communication Sciences & Disorders, and Education of the Deaf; Pharmacy Practice and Administrative Sciences**
- Thomas, Robert C.**, Geosciences**
- Thomas, William, Sociology, Social Work and Criminal Justice**
- Thompson, Mary, Biological Sciences**
- Thompson, E. Gregory, Pharmacy Practice and Administrative Sciences**
- Thompson, Jack, Nursing**
- Thornhill, Terry,*, Pharmacy Practice and Administrative Sciences**
- Thorson, Chester C.**, Pharmacy Practice and Administrative Sciences**
- Tollinger, Brian, Pharmacy Practice and Administrative Sciences**
- Tovar, Diana, Pharmacy Practice and Administrative Sciences**
- Troshynski, Thomas J. (Tom), Pharmacy Practice and Administrative Sciences**
- Trotter, Jack F.**, Nursing**
- Tseng, Alice, Pharmacy Practice and Administrative Sciences**
- Unsworth, Virgie A.**, Sociology, Social Work and Criminal Justice**
- Van Ark, James, Physician Assistant Studies**
- VanArsdale, Robert W.**, Pharmacy Practice and Administrative Sciences**
- Vanek, David, Family Medicine; Physician Assistant Studies**

- Ver Hoef, Jay**, Biological Sciences
- Wade, Ken**, Physician Assistant Studies
- Walaliyadda, Ananda**, Pharmacy Practice and Administrative Sciences
- Waligora, Heidi L.**, Sociology, Social Work, and Criminal Justice
- Walker, Kris M.**, Pharmacy Practice and Administrative Sciences
- Walker, Steve**, Engineering
- Walker, Timothy James**, Nursing
- Walsh, Guerin M.**, Physician Assistant Studies
- Walus, Michael A.**, Family Medicine; Physician Assistant Studies
- Wathne, Richard**, Family Medicine
- Watts, Barry**, Counseling
- Watwood, Maribeth**, Biological Sciences
- Wayment, Keth**, Physician Assistant Studies
- Weinberg, Holly**, Biological Sciences
- Weiss, Mick**,* Pharmacy Practice and Administrative Sciences
- Welch, E. Ben**,* Pharmacy Practice and Administrative Sciences
- Welhan, John A.**,* Geosciences
- Wells, David**, Biological Sciences
- Wells, Lisa**, Radiographic Science
- Wentworth, Kirk C.**, Pharmacy Practice and Administrative Sciences
- Werner-Leap, Kathleen**, Pharmacy Practice and Administrative Sciences
- White, Deanna H.**, Sociology, Social Work, and Criminal Justice
- White, Gregory J.**, Biological Sciences
- White, Karl R.**, Sociology, Social Work and Criminal Justice
- White, Timothy**, Physics
- White, Tom**, Physician Assistant Studies
- Whiting, Craig**, Military Science
- Will, George**, Sociology, Social Work, and Criminal Justice
- Willis Jr., Robert A.**, Informatics Research Institute
- Winebarger, Jason**, Physician Assistant Studies
- Wingett, Denise G.**, Biomedical and Pharmaceutical Sciences
- Winterfeld, Gustav F.**, Biological Sciences; Geosciences
- Wise, David**, Family Medicine
- Wold, Roberta**, Sociology, Social Work and Criminal Justice
- Wood, Sandra R.**, Communication Sciences & Disorders, and Education of the Deaf
- Woods, James**, Anthropology
- Yost, Christian**, Nursing; Physician Assistant Studies
- Young, Jeff**, , Biological Sciences
- Young, Michael K.**, Biological Sciences
- Zager, Peter**, Biological Sciences
- Zaltzman, Arthur**, Engineering
- Zirker, Jed**, Dental Sciences
- Zuckerman, Norman**, Nursing
- ## Emeriti
- Aho, James A.**,* Professor, Sociology, Social Work and Criminal Justice. 1969-2010
- Akersten, William A.**, Associate Professor, Biological Sciences and Geosciences; Curator, Vertebrate Paleontology, Idaho Museum of Natural History. 1985-2009
- Anderson, Robert C.**, Professor, Zoology. 1969-2007
- Asboe, Donald E.**, Assistant Professor, Speech Communication and Theatre. 1947-1986
- Bain, Barbara A.**, Director of Undergraduate Studies and Professor, Communication Sciences & Disorders, and Education of the Deaf. 1989-2004
- Balsley, Ronald D.**, Professor, Marketing. 1978-2005
- Beebe, Thomas G.**, Instructor, Electronics Technology. 1957-1989
- Beezold, Wendland**, Research Professor, Physics. 2000-2010
- Benintendi, Wilma**, Associate Professor, Education. 1967-1984
- Bielby, Victor C.**, Instructor, Civil Engineering Technology. 1966-1993
- Black, James M.**, Instructor, Electronics Technology. 1963-1993
- Bliss, Traci**, Professor, Educational Foundations. 1996-2008
- Blount, Charles W.**, Professor, Geology. 1975-1990
- Bobell, John LV**, Professor, Human Resource Training and Development. 1990-2002
- Booher, Shirley (Deagle)**, Instructor, Office Technology. 1964-1996
- Bowen, Denise M.**,* Professor, Dental Hygiene. 1976-2010
- Bowen, Richard L.**, University President. 1985-2005
- Bowmer, Richard G.**, Professor, Botany. 1961-1997
- Braun, Loren**, Professor, Chemistry. 1957-1989
- Brown, Donald D.**, Professor, Art. 1956-1994
- Brown, Norris C.**, Instructor, Diesel Technology. 1972-1997
- Browning Jr., Wallace E.**, Professor, Physical Education. 1963-1990
- Bryan, Clifford E.**, Professor, Sociology. 1971-2001
- Bunde, Daryl E.**, Associate Professor, Zoology. 1965-1998
- Burns, Mary Jane**,* Co-director, Women Studies Program; Associate Professor, Political Science. 1985-2006
- Cantrill, Dante K.**,* Professor, English. 1974-2005
- Chambers, Darold**, Registrar. 1961-1990
- Christensen, Calvin D.**, Instructional Coordinator, Laser/Electro-Optics Technology. 1971-2000
- Coffland, Jack A.**, Professor, Education; Coordinator, Center for Accountability Systems (Education). 1992-1999.
- Cole, Franklin R.**, Professor, Pharmacognosy. 1956-1991
- 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, Carol**, Instructor, Office Occupations. 1963-1990
- Davis, Everett Eugene (Gene)**, Professor, Educational Leadership; Director, Intermountain Center for Education Effectiveness. (1992-2007)
- Deagle, Shirley** (see Booher)
- 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, Dietetics; Professor, Health and Nutrition Sciences; Registered Dietician. 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
- Eilander, Leann**, Senior Instructor, General Education. 1981-2007
- Ekstrom, Grant**, Instructor, Diesel/Diesel Electric Technology. 1973-1996
- Enloe, Linda J.**,* Associate Professor, Psychology. 1974-2007
- Faler, Kenneth T.**, Professor, Chemistry and Physics. 1967-1991
- Farrell, Larry D.**,* Professor, Microbiology. 1972-2008
- Feige, Gary**, Coordinator and Senior Instructor, Machining Technology. 1977-2003
- Fontenelle, L. Judy**, Professor, Biomedical and Pharmaceutical Sciences. 1969-1998
- Ford, Lawrence C.**, Associate Vice President for Special Programs and Enrollment Management; Associate Professor, Mathematics. 1984-2009
- Fortsch, David E.**, Senior Lecturer, Geosciences 1974-2004
- Foster, Richard H., Jr.**, Professor, Political Science. 1973-2008
- Galizia, Virginia**, Associate Dean, College of Pharmacy; Professor, Pharmacy Practice and Administrative Sciences. (1996-2002)
- Gantt, Gamewell D.**,* Professor, Management. 1982-2004
- Gates, George D.**, Professor, Education. 1977-2000
- 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
- Goettsch, 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
- 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
- Head, Ray T.**, Instructor, Diesel/Diesel Electronics. 1967-1992
- Herzog, Anita**, Professor, Dental Hygiene. 1978-2008
- Hill, Linda Charlotte**, Associate Professor, Mathematics. 1976-2006
- 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
- Holte, Karl E.**, Professor, Botany; Curator, Museum. 1965-1997
- House, Edwin W.**, Chief Research Officer; Professor, Physiology. 1966-2004
- House, Janet G.**, Associate Professor, Mass Communication. 1985-2002
- Huck, Wilbur**, Associate Professor, English. 1957-1990
- Hughes, Scott S.**, Interim Dean, College of Arts and Sciences; Professor, Geosciences. 1991-2010
- Humphrey, Fowler Charles "Chuck,"** Professor, Human Resource Training and Development. 1992-2007
- Hurley, Stephen C.**, Professor, Pharmacy Practice and Administrative Sciences. 1976-2006
- Inouye, Richard S.**,* Professor, Ecology. 1987-2010
- Isaacson, Eugene I.**, Professor, Pharmaceutical Chemistry. 1969-1998
- Jacobson, Grace**, Associate Professor, Nursing. 1981-2002
- Jenkins, Robert M.**, Coordinator and Senior Instructor, Automotive Technology. 1974-2005
- Jensen, Jay**, Dean of Students. 1956-1989
- Jensen, Mary Donna**, Associate Professor, English. 1964-1989
- Joe, Victor C.**, Department Chair and Professor, Psychology. 1969-2003
- 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, Kathleen M.**, Associate Professor, English. 1984-2007
- King, William L.**, Professor, Philosophy. 1960-1994
- Kirkpatrick, David**, Professor, Military Science, Director of Housing. 1951-1955, 1958-1981
- Kratz, Lawrence J.**,* Professor, Mathematics. 1966-2010
- Kritsky, Delane C.**, Associate Dean, College of Health Professions; Professor, Health and Nutrition Sciences and Biological Sciences. 1974-2008
- Kunze, Jay F.**, Dean, College of Engineering. 1995-2006
- 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, Arthur P.**, Professor, Counseling. 1967-2001
- Lloyd, Marcia L.**, Professor, Dance. 1977-2001
- Longmore, Dean R.**, Professor, Department of Finance. 1978-2001

- Lu, Joseph**, Professor, Libraries. 1972-1992
- Luckey, Angela S.**, Associate Professor, Educational Foundations. 1996-2009
- Marcum, R. Laverne**, Professor, Education. 1969-1984
- Marley, Bert**, Professor, History. 1967-1989
- Martindale, Charlene**, Associate Professor, English/Instructor-Coordinator, Business Communication. 1970-1999
- Matteson-Howell, Janice**, Chair, Technical Department. 1984-2007
- Matthews, Leroy J.**, Professor, Psychology. 1968-2000
- Mauch, John E.**, Professor, Journalism. 1971-1999
- Maughan, Ralph B.**,* Professor, Political Science. 1971-2007
- McCune, Joan H.**, Professor, Microbiology. 1980-2001
- McCune, Ronald W.**, Professor, Biochemistry. 1970-2004
- McGee, Shanna**, Professor, Psychology. 1964-1985
- McLaughlin, Diana**, Associate Department Chair; Assistant Professor, Nursing. 1987-2007
- McRoberts, Jacqueline**, Associate Professor, Nursing. 1981-2005
- Merrill, D. Lee**, Master Instructor, Electromechanical Design Drafting Technology. 1971-1997
- Millner, William**, Professor, Business. 1971-1983
- Minshall, G. Wayne**, Professor, Zoology and Ecology. 1966-2003
- Morris, Lloyd E. "Mike,"** Professor, Health and Nutrition Sciences. 1976-2001
- 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
- Nitse, Philip S.**, Professor, Marketing. 1993-2010
- 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
- Peña, Sally J.**,* Professor, Child and Family Studies. 1990-2010
- Pincock, John E.**, Instructor, Diesel Technology. 1970-1996
- Price, Joseph E.**, Professor, Physics. 1959-1992
- Priddy, Kathleen S.**, Senior Instructor, Office Technology. 1976-2005
- Pumphrey, Lela D. "Kitty,"** Professor, Accounting. 1988-2006
- Ronald, Bruce P.**, Professor, Chemistry. 1968-2001
- Rose, Fred L.**, Professor, Biological Sciences. 1969-2000
- Rost, Robert**, Senior Instructor, Welding. 1972-2007
- 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
- Sahlberg, Jeanne H.**, Instructor, Office Occupations. 1967-1990
- Salzman, Stephanie**, Professor, Teacher Education. 1986-2002
- Sato, Alyce**, Associate Professor, Nursing. 1976-2004
- Schneider, Audrey D. (Weston)**, Associate Professor, Speech-Language Pathology. 1990-2005
- Schow, H. Wayne**, Professor, English. 1967-1999
- Schow, Ronald L.**, Professor, Audiology. 1975-2007
- Scott, Darrell F.**, 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)
- Stone, Jack C.**, Instructor, Automotive Technology. 1970-1999
- 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
- Thomas, Victor**, Instructor, Electrical Technology. 1970-1993
- 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

Vittetoe, Dennis, Master Instructor, Electronic Systems Technology. 1976-2003

Volkers, Ray, Senior Instructor, Computer Software Development Technology. 1982-1987; 1990-2003

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

Weston, Audrey (see Schneider)

Wiegand, Gayl H., Professor, Chemistry. 1965-2004

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

Orthmann, 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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 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 and Health Care Administration
 Health Occupations
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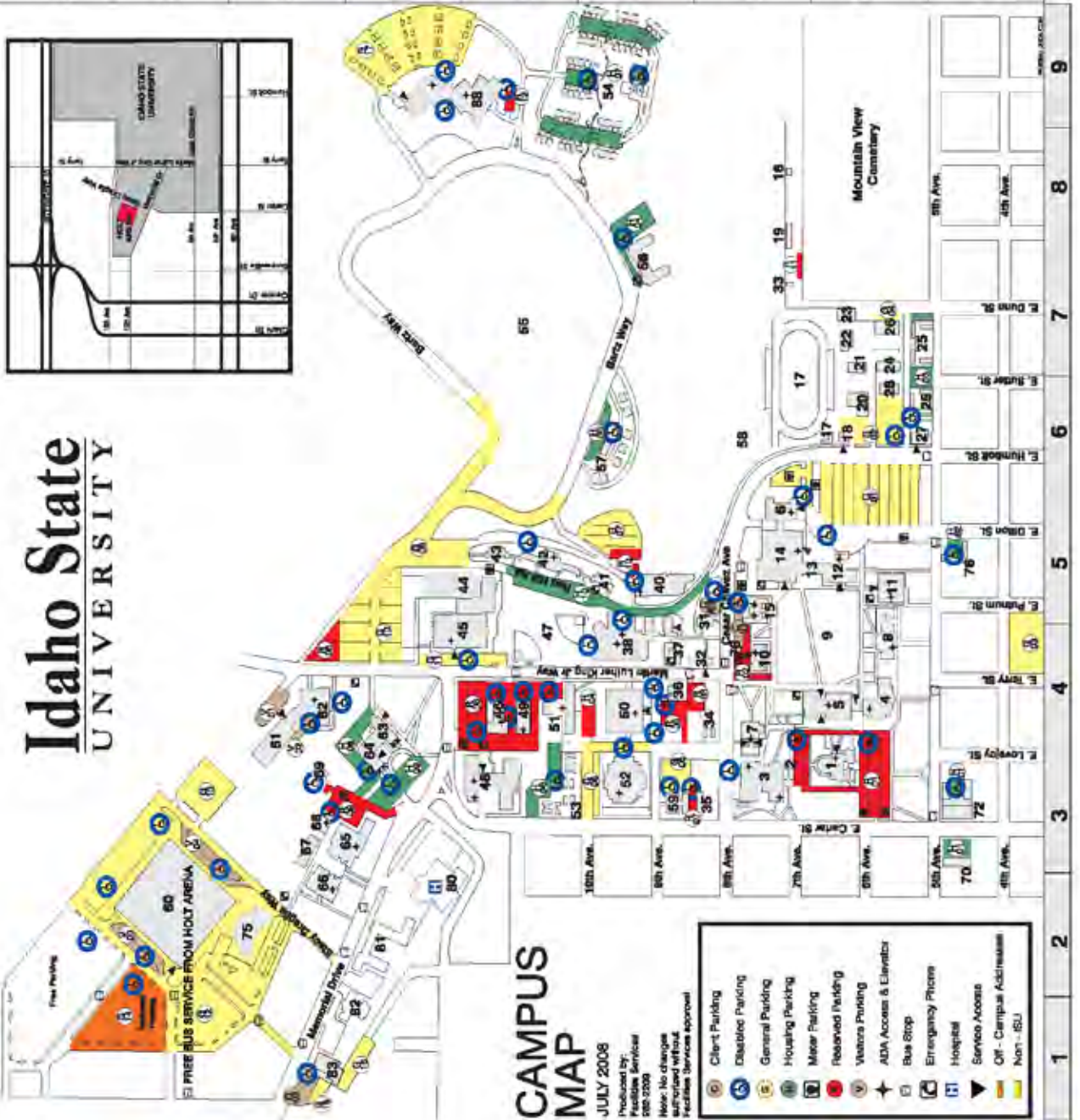
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