Idaho State UNIVERSITY

Undergraduate Catalog 2011-2012



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Policy Statements

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

Students enrolled in a program that is closed, relocated, or discontinued should be given notice of the closure as soon as is practical. Notwithstanding any other provision of State Board of Education policy, University policy, or University catalog statements to the contrary, arrangements should be made for enrolled students to complete affected programs in a timely manner and with minimum interruptions. When there is a similar program within the institutions governed by the Board, an affected student will be provided with information on transferring to that program, although admission to any such program is contingent upon the availability of a position and the student's meeting any applicable admission requirements. If there is no similar program available within the institutions governed by the Board or the student is not able to gain admission to a similar program, the University will make reasonable efforts to place the student in a related or comparable program within the University will make reasonable, the University or elsewhere for which he or she is qualified.

Idaho State University is committed to providing a positive education for all students. The University has a legal and ethical responsibility to ensure that all students and employees can learn and work in an environment free of harassment and discrimination. It is the ISU policy to prohibit and eliminate discrimination on the basis of race, color, national origin, religion, sex, age, or disability. This policy applies to all programs, services, and facilities, and includes, but it not limited to, recruitment, applications, admissions, access to programs and services and employment. For additional information and specific contact information, see: http://www.isu.edu/aaction/

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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-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

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Also Offered in the College of Technology:

- Southeast Idaho Region 5 Tech Prep
- · Workforce Training

Subject Abbreviations

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

- ACCT Accounting; College of Business
- ACRR Auto Collision Repair and Refinishing; College of Technology
- ADRN Associate Degree Registered Nursing; College of Technology
- AIRM Aircraft Maintenance; College of Technology
- AMST American Studies, Department of English and Philosophy; College of Arts and Letters
- ANTH **Anthropology**; College of Arts and Letters
- ARBC-Arabic, Department of Languages and Literatures; College of Arts and Letters
- ARCH Architecture, Department of Art and Pre-Architecture; College of Arts and Letters
- ART Art, Department of Art and Pre-Architecture; College of Arts and Letters
- AUTM **Automotive Technology**; College of Technology
- BA Business Administration; College of Business
- BCT Building Construction Technology; College of Technology
- BED **Business Education**, Department of Educational Foundations; College of Education
- BI **Business Information**; College of Technology
- BIOL **Biological Sciences**, College of Science and Engineering
- CADD Computer-Aided Design Drafting; College of Technology
- CE Civil Engineering, Department of Civil and Environmental Engineering; College of Science and Engineering

- CET Civil Engineering Technology; College of Technology
- CFS Child and Family Studies, Department of Educational Foundations; College of Education
- CHEM Chemistry, College of Science and Engineering
- CHLD Early Childhood Care and Education; College of Technology
- CHNS Chinese, Department of Languages and Literatures; College of Arts and Letters
- CIS Computer Information Systems, College of Business
- CLS Medical Laboratory Science; Division of Health Sciences
- CMLT Comparative Literature, Languages and Literatures; College of Arts and Letters
- COMM Communication (Speech), Department of Communication and Rhetorical Studies; College of Arts and Letters
- COSM Cosmetology; College of Technology
- COUN Counseling; Division of Health Sciences
- CS Computer Science, Electrical Engineering and Computer Science; College of Science and Engineering
- CSDT Computer Software Development Technology; College of Technology
- CSED Communication Sciences & Disorders; Division of Health Sciences
- CUAR Culinary Arts; College of Technology
- DAAC Dance Activity Courses; College of Arts and Letters
- DANC Dance; College of Arts and Letters
- DENT **Dental Hygiene**, Division of Health Sciences
- DESL Diesel/On-Site Power Generation Technology; College of Technology
- DLT **Dental Laboratory Technology**; College of Technology
- ECON Economics; College of Arts and Letters
- EDUC Education, Department of Educational Foundations; College of Education
- EE-Electrical Engineering, Department of Electrical Engineering and Computer Science; College of Science and Engineering

- ELEO Laser/Electro-Optics Technology; College of Technology
- ELMT Electromechanical Technology; College of Technology
- ELSY Electronic Systems, Robotics and Communication Systems Engineering Technology program; College of Technology
- ELTR **Electronics**; College of Technology
- EMGT Emergency Management; College of Technology
- EMTB Emergency Medical Technician Basic, Paramedic Science program; College of Technology
- EMTP Emergency Medical Technician Professional, Paramedic Science program; College of Technology
- ENGL **English** (writing or literature); College of Arts and Letters
- ENGR Engineering (generic Engineering courses); College of Science and Engineering
- ENVE Environmental Engineering, Department of Civil and Environmental Engineering; College of Science and Engineering
- ESET Energy Systems Engineering Technology (several separate programs); College of Technology
- EWTT Electronic Wireless/Telecommunication Technology; College of Technology
- FIN Finance; College of Business
- FREN **French**, Department of Languages and Literatures; College of Arts and Letters
- FSA **Fire Services Administration**; College of Technology
- GART-GraphicArts/PrintingTechnology; College of Technology
- GEMT **Geomatics Technology**; College of Technology
- GEOL **Geosciences**; College of Science and Engineering
- GERM German, Department of Languages and Literatures; College of Arts and Letters
- HCA Health Care Administration, Department of Health and Nutrition Sciences and Health Care Administration; Division of Health Sciences

- HE **Health Education**, Department of Health and Nutrition Sciences and Health Care Administration; Division of Health Sciences
- HIST-History; College of Arts and Letters
- HIT **Health Information Technology**; College of Technology
- HO **Health Occupations**; College of Technology
- HONS **Honors**; University Honors Program
- HPHY **Health Physics**, Department of Nuclear Engineering; College of Science and Engineering
- HRD Human Resource Training and **Development**; College of Technology
- IC Industrial Controls, Instrumentation and Automation Engineering Technology; College of Technology
- IDEP-Idaho Dental Education Program; Department of Dental Sciences, Division of Health Sciences
- INST-Instrumentation, Instrumentation and Automation Engineering Technology; College of Technology
- IS International Studies, Department of Political Science; College of Arts and Letters
- ITS Information Technology Systems; College of Technology
- JAPN Japanese, Department of Languages and Literatures; College of Arts and Letters
- LANG Language, Department of Languages and Literatures; College of Arts and Letters
- LATN Latin, Department of Languages and Literatures; College of Arts and Letters
- LAWE Law Enforcement; College of Technology
- LEAD Leadership Studies, Department of Communication and Rhetorical Studies; College of Arts and Letters
- MA **Medical Assisting**; College of Technology
- MACH (stands for Machining Technology), Computerized Machining Technology; College of Technology
- MANT **Management Technology**; College of Technology
- MART-**Marketing Technology**; College of Technology

- MATH **Mathematics**; College of Science and Engineering
- MC **Mass Communication**, James E. Rogers Department of Mass Communication; College of Arts and Letters
- ME **Mechanical Engineering**; College of Science and Engineering
- MGT-Management; College of Business
- MKTG Marketing; College of Business
- MSL-**Military Science and Leadership** (U.S. Army R.O.T.C.); College of Arts and Letters
- MSTH **Massage Therapy**; College of Technology
- MUSA Applied Music (music lessons), School of Performing Arts; College of Arts and Letters
- MUSC Music, School of Performing Arts; College of Arts and Letters
- MUSP **Music Performance**, School of Performing Arts; College of Arts and Letters
- MUSE **Museology**, Idaho Museum of Natural History
- NE **Nuclear Engineering**; College of Science and Engineering
- NTD **Dietetics** (stands for Nutrition and Dietetics), Department of Health and Nutrition Sciences and Health Care Administration; Division of Health Sciences
- NURS **Nursing**; Division of Health Sciences
- PARA Paralegal Studies; College of Technology
- PAS Physician Assistant Studies; Division of Health Sciences
- PDNT **Pharm.D. Non-Traditional**; Division of Health Sciences
- PE Physical Education, Sport Science and Physical Education; College of Education
- PEAC Physical Education Activity Courses, Sport Science and Physical Education; College of Education
- PHAR **Pharmacy**; Division of Health Sciences
- PHIL **Philosophy**, Department of English and Philosophy; College of Arts and Letters
- PHYS **Physics**; College of Science and Engineering

- PNUR **Practical Nursing**; College of Technology
- POLS Political Science; College of Arts and Letters
- PPRA **Pharmacy Practice**, Pharmacy Practice and Administrative Sciences; Division of Health Sciences
- PSCI Biomedical and Pharmaceutical Sciences; Division of Health Sciences
- PSYC **Psychology**; College of Arts and Letters
- PTA Physical Therapist Assistant; College of Technology
- PTOT Physical Therapy and Occupational Therapy; Division of Health Sciences
- RESP **Respiratory Therapy**; College of Technology
- RS Radiographic Science; Division of Health Sciences
- RUSS Russian, Department of Languages and Literatures; College of Arts and Letters
- SHOS **Shoshoni**, Department of Languages and Literatures; College of Arts and Letters
- SOC **Sociology**, Department of Sociology, Social Work, and Criminal Justice; College of Arts and Letters
- SOWK Social Work, Department of Sociology, Social Work, and Criminal Justice; College of Arts and Letters
- SPAN **Spanish**, Department of Languages and Literatures; College of Arts and Letters
- SPED **Special Education**, School Psychology, Literacy, and Special Education; College of Education
- TGE **Technical General Education**; College of Technology
- THEA **Theatre**, School of Performing Arts; College of Arts and Letters
- US **University Studies**; Bachelor of University Studies
- WDM Web Site Design and Maintenance; College of Technology
- WELD Welding; College of Technology
- WS Women Studies, Department of History; College of Arts and Letters

About The University

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

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

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

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

Bookstore

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

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

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.

Idaho Museum of Natural History

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

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

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

The Museum offers undergraduate and graduate students educational credits under the Museum subject code and through courses in Anthropology, Biology, Education, Geosciences, History, and other affiliated Idaho State University departments. See course descriptions in the College of Arts and Letters section of the catalog.

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

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).

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), University Food Services, an ISU Credit Union branch, and the Bengal Card Services office.

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

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

Housing Options

University Housing offers traditional 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 and basic cable television. On-campus housing is within the University's wireless internet network. Internet service requires an ISU computer account, which is charged per semester.

Food Service

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

To Apply

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

University Library

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 subjectspecific bibliographic research. In addition to supplying informational materials from its own collections, the library provides an interlibrary loan service, equipped to locate and deliver books and periodical articles from other libraries' holdings. Using online electronic ordering and transmission, as well as postal services, the interlibrary loan service fills most requests within a week, but students should allow a two-week turnaround time.

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

Idaho Falls Services

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

Twin Falls and Lewiston

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

Meridian

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

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

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

Admission Process

The following information applies to undergraduate students applying for admission to academic programs. For students seeking information regarding admission to professional-technical programs, contact the College of Technology. Graduate students should refer to the Graduate Catalog.

Idaho State University welcomes all students of good character who provide evidence of suitable preparation for work at the college level. Future students are welcome to contact the Office of Admissions for an admission application, other supporting forms, and accompanying instructions, or visit our web page at www. isu.edu/enroll/admisssions/index.shtml.

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. Students may be admitted with an in progress transcript. However, the University reserves the right to restrict registration for the term following admission. if all required documents are not submitted

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

Application 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.

	Freshmen and Transfer Applicants	International Applicants
Fall Semester	August 1	March 1
Spring Semester	December 1	October 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.

Definitions

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

- 1. New Freshmen
- a. Students who have never attended a college or university;
- b. Transfer students who have fewer than 14 transferable semester credit hours;
- Students who have participated in an early college or concurrent enrollment program while still classified as high school students.
- 2. Transfer Students
- a. students who have been enrolled and received grades at any college or university prior to being admitted to Idaho State University who has earned more than 14 transfereable semester credit hours.
- 3. Former Students
- a. students who have been accepted at ISU previously, but not enrolled in classes for the past 8 semesters.
- 4. International Students
- 5. Professional Technical Students

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

Conditional Admission means the student has satisfied most of the admission require-

ments. Conditional Admission is not a probationary status but is subject to credit hour restrictions. Students conditionally accepted are considered for scholarships and have the rights and privileges granted all students

Idaho State Board of Education College Entrance Core Requirements

English	8 semesters
(Composition, Literature)	
Mathematics	6 semesters
(Applied Math I, Applied Math II, Algebra I, Algebra II, Geometry, Analytic Geometry, Calculus, Statistics, Trigo- nometry; at least 4 semesters must be taken during grades 10 through 12)	
Natural Science	6 semesters
(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)	
Social Science	5 semesters
(American Government, Geography, U S History, World History Economics, Philosophy, Psychology, Sociology)	
Humanities/Foreign Language	2 semesters
(Literature, History, Philoso- phy, Foreign Language, and related study of 2 or more of the traditional humanities disciplines)	
Other college prep	3 semesters
(Speech, Studio/Performing Arts (Art, Dance, Drama, Music), additional Foreign Language Up to 2 semes- ters of approved vocational courses may apply; consult your high school counselor)	

New Freshmen

Application Steps for New Freshmen

- 1. Apply for Admission—the form is online at **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).

 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)

High School Graduates

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

Assured Admission requires:

- a completed Undergraduate Admission Application with the \$40 nonrefundable application fee paid,
- 2. .a 2.50 or better cumulative grade point average,
- the completion of the Idaho State Board of Education high school core requirements.
- 4. a math minimum test score of 18 ACT or 490 SAT,
- 5. an English minimum test score of 18 on ACT or 460 on SAT Critical Reading,

Students from Idaho will be evaluated for completion of the Idaho State Board of Education core upon receipt of a final high school transcript with the graduation date posted.

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

Conditional Admission requires:

- 1. a completed Undergraduate Admission Application with the \$40 nonrefundable application fee paid,
- 2.. a 2.25 or better cumulative grade point average,
- 3. a math minimum test score of 12 on ACT or 270 on SAT,
- 4. an English minimum test score of 12 on ACT or 360, on SAT Critical Reading

Students from Idaho will be evaluated for completion of the Idaho State Board of Education core upon receipt of a final high school transcript with the graduation date posted.

Home School or GED Students Between 18 and 21 Years of Age

Assured Admission requires:

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

Conditional Admission requires:

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

GED Students Younger than 18 or Older than 21

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

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

Admission by Petition

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

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 inprogress college transcript indicating grades earned through the most recent completed semester.

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

Assured Admission requires:

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

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

Transfer Credit Evaluation

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

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

A transfer GPA is not calculated for the ISU record.

Transfer Credit Limitations

Junior and Community Colleges

Students transferring from a regionally accredited Junior College or Community College may use a maximum of 70 credits for an Idaho State University bachelor's degree.

Professional-Technical Credit

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

Lower vs. Upper Division Transfer Credit

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

Transfer Credits toward General Education Requirements

- 1. Students who transfer to Idaho State University from a U.S. regionally accredited institution with an earned Associate of Arts (A.A.), Associate of Science (A.S.), or Associate of Arts and Science (A.A.&S.) degree (received in 1995 or later) or baccalaureate degree have met the General Education requirements for Idaho State University. However, they will be required to complete all courses that are required by their major/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 have 58 or more transferrable college level credits will be given special consideration.

Departmental Prerequisites and Lower Division Requirements

Transfer students should be aware that graduation requirements for certain majors may include specific courses or additional credit hours in courses normally associated with General Education Requirements.

Transfer Students 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 Requirements are met. General Education Requirements not met with transferred course work must be satisfied by Idaho State University courses listed as meeting those requirements.

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 Letters or College of Science and Engineering

Transfer students with 58 or more credits from other institutions who are seeking a B.A. degree in the College of Arts and Letters or College of Science and Engineering 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 Letters or Science and Engineering, 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 Letters or Science and Engineering, 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 eighthour natural/physical science requirement and Goals 6, 7, and 8 as a single six-hour humanities requirement. Goals 9, 10 A-B, 11, and 12 may be considered as a nine-hour Social Science requirement. Students who opt to fulfill Goal 10B also must take six credits from 9, 11, and/or 12.

Transfer Students with Bachelor's Degrees

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

Transfer Students from Non-Accredited Institutions

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

Other Applicants

Former Students

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

- 1. Application for Admission. Access online application at www.isu.edu .
- 2. Complete, official transcripts from any other colleges attended since enrolled at Idaho State University.
- 3. Application Fee (\$40, nonrefundable).

Students Who Previously Applied but did not Enroll

Students accepted for admission to Idaho State University who do not attend their first semester will be allowed to enroll the next semester without reapplying. Acceptance is granted for a two (2) semester time frame. However, students MUST complete an admissions update form or call the Office of Admissions at (208) 282-2475 to provide current information, including official transcripts from all other colleges or universities attended since initial application submission, prior to being allowed to enroll for classes.

Students with Behavioral Problems

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

University community is disruptive of the educational process of the institution, these procedures shall apply whether the cause of the condition is medical, psychiatric, behavioral, otherwise, or a combination of the above.

Non-Degree Seeking Students

A person may apply as a non-degree seeking student if he/she does not wish to qualify for admission for degree work but to pursue studies for personal reasons. Such a student may register for at most 7 credits per semester, unless he or she is enrolled in the Early College Program. A non-degree seeking student who has completed 32 credits must follow regular admission procedures at Idaho State University to enroll for additional degree credits or sign a non-degree waiver to continue as a non-degree seeking student. All admission requirements must be met before the University can assist this student in obtaining a degree. Such a student will be classified as non-degree seeking until all admission requirements are met for classification as a regular student. Nondegree seeking students are NOT eligible for Federal Financial Aid.

Early College Program/ High School Dual Credit

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

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

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

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

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

International Students

Idaho State University encourages and welcomes international students to apply. We are proud of the active part taken in student activities by students from around the world. Admission to Idaho State University for international students is dependent upon credentials showing proof that the students are able to perform well in an American academic environment. The 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. Documents showing English Proficiency
- 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.

ALLREQUIRED ADMISSIONS DOCUMENTS MUST BE RECEIVED PRIOR TO ENROLLMENT.

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.

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.

English Proficiency

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

TOEFL, iBT of 61 or above,

IELTS of 5 or above,

Test results must be sent directly to ISU admissions from the testing organization.

To find test centers and to learn more about the tests go to http://www.ets.org/toefl/or http://www.ielts.org/

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

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

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

To see whether you qualify contact the admissions office at 208-282-2314.

International High School Graduate

Assured Admission requires:

- a completed Undergraduate Admission Application with the \$40 nonrefundable application fee paid,
- 2. a 2.50 or better cumulative grade-point average,

- 3. Secondary school (high school) diploma and mark sheets (grades) in original or copies certified by the school principal or the controller of examinations. Documents must be in official, sealed school envelope. Translation of these documents by a certified translator if the documents are not in English.
- 4. Meeting English Proficiency requirements

SAT or ACT is not required for admission but encouraged.

All I-20's are generated and tracked by the International Programs Office. If you have questions regarding this process please call (208) 282-4320.

Conditional Admission requires:

- a completed Undergraduate Admission Application with the \$40 nonrefundable application fee paid,
- 2. 2.25 or better cumulative grade-point average
- 3. Secondary school (high school) diploma and mark sheets (grades) in original or copies certified by the school principal or the controller of examinations. Documents must be in official, sealed school envelope. Translation of these documents by a certified translator if the documents are not in English.
- 4. Meeting English Proficiency requirements

SAT or ACT is not required for admission but encouraged.

All I-20's are generated and tracked by the International Programs Office. If you have questions regarding this process please call (208) 282-4320.

International Alternative Admissions without High School Diploma

Assured Admission requires:

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

Students will be required to provide either a TOEFL iBT score of 61 or above or an IELTS score of 5 or above to demonstrate their English proficiency if they score less than:

18 on the ACT English test,

450 on their SAT Critical Reading test,

68 on the COMPASS writing test.

Test results must be sent directly to ISU admissions from the testing organization.

Conditional Admission requires:

- a completed Undergraduate Admission Application with the \$40 nonrefundable application fee paid,
- a composite score of at least 20 on ACT or a 1000 combined SAT Critical Reading and Math score,
- a GED score with a 450 (45) average and no individual score below 410 (41) or both a Compass score in English of at least 68 and Algebra score of at least 40

Students will be required to provide either a TOEFL iBT score of 61 or above or an IELTS score of 5 or above to demonstrate their English proficiency if they score less than:

18 on the ACT English test,

450 on their SAT Critical Reading test,

68 on the COMPASS writing test.

Test results must be sent directly to ISU admissions from the testing organization.

International Transfer Student Admission Requirements

- 1. International students who have completed less than 2 semesters of fulltime study (less than 26 credits) are required to send in Secondary school (high school) diploma and mark sheets (grades) in original or copies certified by the school principal or the controller of examinations. Documents must be in official, sealed school envelope. Students are also required to mail in Official (original) college/university transcripts in a sealed official envelope from the school or copies certified by the school principal or the controller of examinations. These must be also in official, sealed school envelope.
- 2. If student has completed at least 26 credits at a college/university, then a student is required to send in official (original)

- college/university transcripts in a sealed official envelope from the school or copies certified by the school principal or the controller of examinations. Documents must be also in official, sealed school envelope. Students who have attended more than one college/university must submit official transcripts from all institutions they attended.
- 3, Students who have already completed an associate's (2 year) or bachelor's (3 or 4 year) degree must also submit their diploma or have their diploma posted on the transcript.
- All documents must be translated by a certified translator if the documents are not in English.
- 5. All international post-secondary documents must go through an evaluation service approved by the National Association of Credential Evaluation Services, Inc. (NACES). Students need to provide the Office of Undergraduate Admissions with the official evaluation in addition to the official transcripts. For evaluations Idaho State University recommends:

World Education Services http://www.wes.org 212-966-6311

Global Services Associates, Inc http://www.globaleval.org 310-828-5709

Global Credential Evaluators Inc http://www.gcevaluators.com 512-528-0908

Educational Credential Evaluators http://www.ece.org 414-289-3400

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

 Students must meet English Proficiency requirements.

Declaration of Financial Support / Financial Statement

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

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

Note: Based on academic merit and availability, new entering International students may be considered for non-resident fee waiver scholarships worth approximately \$11,000 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
Room and Meals \$ 5,050.00

\$ 23,136.00

Expense

Undergraduate, With Scholarship

Total for I-20 students:**

Category

Tuition and Fees* \$ 5,416.00 Other Expenses (books, supplies, and medical insurance) \$ 2,170.00

Room and Meals \$ 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.

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

See Expenses in the Registration section of this Catalog for on-campus housing. Off-campus options are available. Married students accompanied by spouse and children must provide additional funds for them. International students are confronted with a different circumstance than resident students or even out-of-state students. These students may need to supplement their personal belongings with purchases after 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 International Programs Office along with a copy of the student's I-20/DS-2019 and I-94 forms. Information in this report and the I-20 will help verify the applicant's status with the United States Citizenship and Immigration Services (USCIS).

Registration

Questions about academic regulations or registration should be directed to:

Office of the Registrar 921 S 8th Ave Stop 8196 Pocatello ID 83209-8196 (208) 282-2661

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.

Continuing Students

Students who major within the College of Science and Engineering, and within the College of Pharmacy and selected departments within the Division of Health Sciences, must see their advisor before attempting to register.

Registration 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 the Registrar.

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 is available online at http://classes isu.edu

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).

Please contact ASISU to determine eligibility for ASISU elective or appointed office.

Please note: in order to graduate in four years, an undergraduate student must complete an average of 32 credits per year and all required coursework. Students paying by the credit hour pay "full-time" fees if taking 10 or 11 credits. However, full time status depends on the credit hours attempted, not the fees actually paid.

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.

Class Schedule

The class schedule is available online approximately three weeks prior to the next semester in the BengalWeb system. This may be accessed by students and nonstudents alike by navigating as follows: From the ISU homepage, choose"Quick Links;" then choose "Class Schedule." Enrolled students should access the class schedule through Bengal Web. Instructions for using the system are at http://www. isu.edu/tigeri/bengalweb/ClassScheduleStudents.shtml.

Expenses

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

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

Enrollment Fees

Academic Undergraduate and College of Technology Semester Fees, including Summer

The following fees are estimates and are subject to change. They are a sample of the generally charged fees, but the actual charges will be reflected on each student's billing. Summer semester fees are paid on a per credit basis. Additional class fees and program fees may be charged. Updated fees and other Financial Services information are found at http://www.isu.edu/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* \$ 2,708.00 + insurance* Resident Nonresident \$ 7,958.00 + insurance*

Part-time (1-11 credits)

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

 $*All full-time\ a cademic\ under graduate\ students\ taking$ twelve (12) or more credit hours, graduate students taking nine (9) or more credits, and international students taking one (1) more credits are automatically enrolled in the student health insurance plan. College

of Technology students are also automatically enrolled in the student health insurance plan. This premium is added to their fees each semester or session. Any student with existing health insurance coverage may be exempt from participation in the Student Insurance Plan by completing and filing a Health Insurance Waiver each academic year. The full-time student insurance premium is \$736.00 per semester (\$238/session). For any questions regarding coverage, premium, or $enrollment, contact \, the \, Student \, Health \, Insurance \, Of fice$ at (208)282-2972

Room and Board Expenses

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

Other Fees and Charges

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

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

Application Fee

(Academic and College of Technology students)

Undergraduate \$40 Graduate \$55

Audit Fee: Same as parttime credit hour fees

Class Fees (in addition to regular registration fees)

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

Credit Recording Fee

Credit Recording Fee \$15

Credit by Challenge Examination

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

Credit from College Level Examination Program (CLEP)

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

Dental Hygiene

Semester Fee, Junior/Senior \$265

Experiential Credit

Evaluation Fee (*Per academic area evaluated; payable at Idaho State University Cashiers Office prior to evaluation process.) Credit Recording Fee (*Per credit hour and in addition to evaluation fee; payable after evaluation.)

Faculty, Staff and Spouses

Registration Fee \$20

+ \$5 per cr. hour

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

GED Transcript Fee

\$5

Graduation/Diploma Fee

\$20

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

Idaho Dental Education Program (IDEP) Fee

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

In-Service Teacher Education Fee

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

Late Registration Processing Charges

Second through tenth day of classes \$50 After tenth day of classes \$100 To help defray extra costs involved with late registration, processing fees are charged in addition to any other regular fees. All students (full-time, part-time, faculty, staff, etc.) paying fees after the deadline for fee payment are charged a late processing fee. The cashier is not authorized to accept late registration fee payment without the appropriate late processing fee. This fee is nonrefundable. No department or employee of the University, other than those specifically authorized, has the authority to waive the fee.

Medical Laboratory Science

Semester Fee \$424

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, \$240, and \$350, depending on the level and length of the lessons. Please see the Class Schedule for the applicable fee under Applied Music Lessons.

Non-credit Course Fees

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

Nursing, Bachelor's Degree

Semester Fee \$640

Pharmacy Professional Fee (per semester)

Continuing Full-time Resident \$3,929 Continuing Non-Resident \$6,193

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

Physical/Occupational Therapy Professional Fees (per semester)

Resident \$980 Nonresident \$3,388

Placement Testing Fee (Compass Tests)

\$5 per examination

Radiographic Science

Semester Fee \$345

Remediation Fees

Payment of remediation fees is required for pre-college courses, as follows:

Arithmetic/Pre-Algebra (MATH 015) \$30 Elementary Algebra (MATH 025) \$30 Basic Writing (ENGL 90) \$30

Senior Citizens*

Registration Fee \$20 + \$5 per cr. hour *Age 60 years or older; proper identification indicating date of birth is required; fee is for courses on a space available basis only; special course fees also may be charged.

Fee reduction does not apply to non-resident students.

Social Work Fees

Application Fee \$30 Semester Fee \$125

Student Health Insurance Fee

All full-time fee paying students, and all International students taking 3 or more credits \$736 per semester \$238 per session

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

Transcript Fee

See information at http://transcripts isu.edu

VTE Competency Credit Fee (College of Technology)

\$135

Idaho Residency Requirements for Fee Payment

See the web address http://www isu.edu/enroll/admissions/rinfo.shtml for the most complete and current information regarding residency requirements.

Residency for tuition purposes is governed by Idaho Code § 33-3717 and the residency rules of the State Board of Education. Although a full-time regularly-enrolled resident student is not required to pay tuition while enrolled at Idaho State University, students are charged fees for educational costs excluding the cost of instruction in accordance with the Idaho State System of Higher Education "Notice to Nonresidents of the State of Idaho."

A student is a "resident" for purposes of fee payment if:

- He/She has a parent or court appointed guardian currently domiciled in Idaho who has maintained a bona fide domicile in Idaho for at least one year prior to the opening day of the term for which the student enrolls; or
- 2. He/She receives less than 50% financial support from parents or guardians who are not residents of Idaho and has continuously resided in Idaho for at least 12 months prior to the opening day of the term for which the student enrolls and has established a bona fide domicile in Idaho primarily for purposes other than educational; or
- 3. He/She is a graduate of an accredited secondary school in the state of Idaho and is enrolled in a college or university in Idaho during the semester immediately following such graduation regardless of the residence of his/her parents or guardians; or
- 4. He/She is the spouse of an Idaho resident or person who qualifies for Idaho residency; or
- 5. He/She (or his/her parent or guardian) is an active duty member of the United States armed forces (only the U.S. Army, Navy, Air Force or Marine Corps) stationed in Idaho on military orders and the student receives 50% or more financial support from parent or guardian; or
- 6. He/She is separated, under honorable conditions, from the United States armed forces (a certified copy of the DD-214 separation papers may be requested) after at least two years of active duty service and has Idaho as the home of record in service or elects Idaho as his/her intended domicile within one year of separation and enters a college or university in Idaho within one year of the date of separation; or
- 7. He/She is a member of any one of the Idaho Native American Indian Tribes (Coeur d'Alene, Shoshone-Paiute, Nez Perce, Shoshone-Bannock, Kootenai, or Eastern Shoshone), regardless of current domicile.

Any individual who has been domiciled in the state of Idaho, has qualified as a resident and would otherwise be qualified under the provisions of this statute and who is away from the state for a period of less than one (1) calendar year and has not established legal residence elsewhere provided a twelve (12) month period of continuous residency

has been established immediately prior to departure is considered an Idaho resident for purposes of fee payment.

Direct specific questions to:

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

A "nonresident" student shall include:

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

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

Establishing a New Domicile in Idaho:

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

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

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

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

Normal Idaho residency requirements shall be in force for students who apply for some special graduate and professional programs. These include but are not limited to the Idaho Dental Education Program (IDEP), the WAMI (Washington, Alaska, Montana, Idaho) Regional Medical Education Program; the University

of Utah College of Medicine; the WOI (Washington, Oregon, Idaho) Regional Program in Veterinary Medicine; the Western Interstate Commission for Higher Education (WICHE) Professional Student Exchange Programs (medicine, optometry and occupational therapy) and Graduate Education Program.

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

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

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 Division of Health Sciences.

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

General University fees paid without use of a fee reduction program:

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

Refunds of registration charges for fulltime 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 two weeks of classes: 100%*

During the second week of classes: 50%*

After the third week of classes: NO REFUNDS

College of Technology Sessions

Before and during the first week of classes: 100%*

During the second week of classes: 50%*

After the second week of classes: NO REFUNDS

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

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

Nonrefundable Charges

1. State Board of Education authorized reduced fee charges. (Examples include

but are not limited to faculty/staff reduced fees, senior citizen reduced fees, education contract classes, etc.)

- 2. Late processing charges.
- 3. Any amounts paid to satisfy fees/charges due from previous terms.
- 4. Amounts paid for student malpractice insurance.
- 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 Office of Finance and Administration before the refund will be processed.

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

Dishonored Check Policy

A charge of \$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 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 halftime (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 many of the courses that fulfill the requirements are taught in the College of Arts and Letters.

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 120 credit hours required at Idaho State University for a baccalaureate degree.

Students pursuing a Bachelor of Arts or Bachelor of Fine Arts degree in the College of Arts and Letters or College of Science and Engineering 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 Letters or College of Science and Engineering, 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 ENGL 0090 (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:

Courses sau	istying the goal.	
MATH 1123	Mathematics in Modern	
	Society	3 cr
	(Prerequisite MATH 025)	
MATH 1127	The Language of	
	Mathematics	3 cr
	(Prerequisite MATH 025)	
MATH 1130	Finite Mathematics	3 cr
	(Prerequisite MATH 108)	
MATH 1160	Applied Calculus	3 cr
	(Prerequisite MATH 143)	
MATH 1170	Calculus I	4 cr
	(Prerequisite MATH 147	
	or 143 & 144)	
MATH 1153	Introduction to Statistics	3 cr
	(Prerequisite MATH 108)	
ELSY 0372	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.

Credits required: 4 credits

Courses satisfying the goal (choose one): CHEM 1100 Architecture of Matter GEOL 1100,1100LThe Dynamic Earth, and Lab 4 cr GEOL 1101 and either GEOL 1101L or GEOL 1110* Physical Geology plus either Physical Geology Laboratory 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

	pius Lab	4 CF	
Another means to sequence from the	satisfy this goal is to tak following:	e one	
CHEM 1101	Introduction to		
	General Chemistry	3 cr	
	AND		
CHEM 1102	Introduction to Organic		
	and Biochemistry	3 cr	
	AND		
CHEM 1103	Introduction to General, Org	ganic	
	and Biochemistry Lab	1 cr	
CHEM 1101 and 1	112	7 cr	
CHEM 1111, 1111L, and CHEM 1112, 1112L			
	General Chemistry I and II,		
	and Labs	9 cr	
CHEM 1111, 1102	2 AND 1103	7 cr	
PHYS 1111, 1112,	1113, 1114		
	General Physics I and II		
	plus Labs	8 cr	
PHYS 2211, 2212	, 2213, 2214		
	Engineering Physics I and I	I	
	plus Labs	10 cr	
PHYS 1111/1112 a	and 2213/2214	8 cr	
PHYS 2211/2212	and 1113/1114	10 cr	
*GEOL 1110 is the	*GEOL 1110 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:

	•	0	0		
PHIL 1101	Inti	oductio	n to	Philosophy	3 cr
PHIL 1103	Inti	oductio	n 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):

	American Studies	3 cr
AMST 2200	Introduction to	
HIST 1118	U S History and Culture	3 cr
HIST 1112	U S History II (to present)	3 cr
HIST 1111	U S History I (to 1865)	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 2251	Latin American Civilization	3 cr
HIST 2252	East Asian History	3 cr
HIST 2254	Middle Eastern Civilization	3 cr
HIST 2255	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 la	nguage):*	
ANTH/SHOS 110	1-1102 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 220	1-2202 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
4.4.7	1 1C E 1 C	

*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):

AN1H 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 certain			
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 former 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 University's 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.
- 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:

- Study, prepare, and present spoken exercises in interpersonal communication, group communication, informative speaking, argumentation, and persuasion
- 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:

- 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;
- 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;
- 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;
- Study the computation and the application of probability and its consequences as a valuable tool for decision-making under uncertainty;
- 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;
- 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:
- 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;
- 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;
- 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:

- 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.
- 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.
- 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.
- 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.
- Outline our understanding of geologic time and discuss how this course opened their minds to the notion of a fourdimensional 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.
- 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 it's usefulness in understanding how the universe works.
- (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;
- 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:

- 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.
- 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:

- Encounter American music through reading, lectures, listening examples, videos, and live concert attendance.
- Gain an appreciation of the range of musical genres and styles found in American music.
- 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:

- 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.

- 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.
- 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.
- 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.
- 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:

- 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.
- Critically assess their own culture and values through specific cross-cultural comparisons.
- 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.
- Be able to analyze products of the culture(s) such as literature, philosophical or religious texts, built environments, works of art, or rituals.
- 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
- 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:

 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).
- Demonstrate knowledge of key economic concepts and an ability to apply basic economic theory.
- 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).
- 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:

- Demonstrate a well-rounded knowledge of American government and politics sufficient to fulfill civic education goals.
- 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.
- 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:

- 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 polities in which they are raised. As the teaching of anthropology depends greatly upon understanding our own society through comparing it to others, students who successfully complete this course will have a better appreciation of how individuals become acculturated into their own society, subculture, and/or nation; and how the various aspects of societies are integrated into viable and sustainable systems.

Students will:

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

- 3. Describe how their own culture and values fit into the broader multicultural world
- 4. Compare a variety of cultures to one another with respect to the components of societies (religion, art, technology, economics, etc.) and how they contribute to making the system sustainable.
- Demonstrate the above understandings through graded exams, original papers and presentations, or projects.

SOC 1101 and 1102

Students will:

- (1101) Demonstrate an awareness of the general sociological theory and research methods.
- (1101) Read academic texts to critically analyze the social groups and institutions.
- (1101) Demonstrate an understanding of sociological theory and method with regard to the analyzing social groups and institutions.
- (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.
- (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.
- Be exposed to research methods as the apply across the breadth of topics studied by psychologists.
- Be involved in the research process by participating in or by reading original research projects.

 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 Letters

 Associate of Arts - Available with a Major in Criminal Justice, French, Russian, or Shoshoni. Complete all the General Education Goals (includes 10A and 10B).

College of Science and Engineering

Associate of Science - Available with a
 Major in Mathematics, Physics, or
 Physics with an Emphasis in Health
 Physics. Students seeking an Associate of Science degree in the College of
 Science and Engineering 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.

Division of Health Sciences

- 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 Letters or College of Science and Engineering must complete all Goals (i.e., Goals 1-9, 10A AND 10B, and 11-12), while those in other colleges must complete Goals 1-9, 10A OR 10B, and 11-12.

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

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

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 number of hours in humanities classes - consult with your advisor).

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 Science in Health Science—B.S.H.S.

Students pursuing the Bachelor of Science in Health Science degree (specifically for students who have earned an Associate of Science degree in any of several Health Occupations majors) must complete Goals 1, 2, and 3; Goals 4 and 5, or 12 credits in the physical or biological sciences; two of Goals 6, 7, and 8; and three of Goals 9, 10A, or 10B, 11, and 12.

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

Bachelor of University Studies—B.U.S.

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 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. 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;
- 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 the Registrar, located in the Museum Building, Room 318, at (208) 282-4225 or (208)-282-4874.
- On-line: http://bengalweb isu.edu/cp/ home/displaylogin

College of Technology Students

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

Graduate Students

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

Graduation/Diploma Fee

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

Payment Options

- · Pay by credit card at bengalweb isu.edu
- · Pay in person:

Academic students: contact the Cashier's Office

College of Technology students: contact the Student Services Office

Additional Deadlines Transfer Work

• All pending transfer work must be reported to the ISU graduation staff in the Office of the Registrar.

• Official transcripts with transfer work (including correspondence courses), must be received no later than four weeks after the date of graduation.

Incomplete Grades

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

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

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

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

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

*See Alternative Credit Opportunities for specific information.

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

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

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.
- The catalog cannot precede the academic year in which the student graduates by more than 8 years.
- 3. Selection of a catalog for certifying graduation requirements must be approved by the department's chair or program director.
- 4. Students with a gap in enrollment at the University for three years or more from the date of last attendance must meet degree requirements as outlined in the catalog in effect at the date of their reenrollment, degree conferral date, or any subsequent catalog.
- 5. If a major program is discontinued by the University and the State Board of Education, students enrolled will be assisted in transferring to an equivalent program in the state. If there is no similar program within the state, currently enrolled students will be permitted to complete the program in accordance with existing graduation requirements.

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

Grade Requirements

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

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

Individual departments may require a higher grade point average.

Other Information Related to Graduation

Revocation of Degrees

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

Honors Designation at Graduation

Students who secure minimum grade point averages of 3.33 and also are in the top 10% of their respective college's graduating class are designated as graduating with honors. Those in the top 5% graduate with high honors. See also the University Honors Program, described later in this section.

Course Policies

All-University Courses

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

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

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

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

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

Attendance

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

To register for audit, a student must submit a completed Schedule Change Card to the Office of the Registrar during the published Add/Drop period for the term. In a full semester course, students may not change from credit to audit after the 10th day of class. In an 8 week course, students may not change from credit to audit after the 5th day of class.

Schedule Change Cards are searchable at **isu.edu**.

Course Numbering

Courses numbered 0000-0099 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
- EF, ES, ESu = Even-numbered Fall, Spring, or Summer Semester
- OF, OS, OSu = Odd-numbered Fall, Spring, or Summer Semester
- D = With enough Demand or Discretionary-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

- Students with an ACT English score below 18, a Compass score below 68, or an SAT score of 440 or lower register for ENGL 0090.
- Students with an ACT English score of 18-24, a Compass score of 68-94, or an SAT score of 450-560 and students who have passed ENGL 0090 register for ENGL 1101.
- 3. Students with an ACT English score of 25-30 or an SAT score of 570-690 receive 3 ENGL 1101-equivalent credits and register for ENGL 1102.
- 4. Students with a Compass score of 95-99 register for ENGL 1102; credit for ENGL 1101 will be assigned with a grade of "Satisfactory' upon passing ENGL 1102, unless they already have a transcripted grade for ENGL 1101. The Compass Test cannot be used to replace an earned grade in a course for purposes of GPA calculation.

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

Advanced Placement Options

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

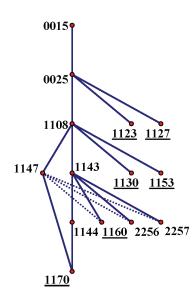
Because Goal 1 courses advance acquisition of writing skills important for academic success, students are encouraged to complete them in timely fashion. Accordingly, ENGL 1101 should normally be completed during the freshman year, ENGL 1102 by the conclusion of the sophomore year.

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):

MAIH	ACI	SAI	Compass
Course(s)		
00151			
00252	16	390	46 on Prealgebra (MAPL 1)
1108, <u>1123,11</u>	<u>27</u> ³—19	460	45 on Algebra (MAPL 2)
<u>1130</u> , 1143, 1	1147,		
<u>1153</u> -	23	540	61 on Algebra (MAPL 2)
1144, 1160, 22	256,		
<u>2257</u> ⁵	27	620	51 on College Algebra (MAPL 3)
<u>1170</u> 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.
- scores to take MATH 1130, 1143, 1147, or 1153. 5) Pass MATH 1143 or achieve one of the listed test scores to take MATH 1144, 1160, 2256, or 2257.
- 6) Pass MATH 1144 or 1147 or achieve one of the listed test scores to take MATH 1170.

Prerequisites and Corequisites

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

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

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

Repeating Courses

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

Credit and Grading Policies

Credit or Credit Hour

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

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

Credits per Semester

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

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

Grade Reports and Transcripts

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

Current students and students who have attended within the past five years may also access their unofficial transcripts via the Myldaho State University web portal at http://my.isu.edu.

Students who wish to order official Idaho State University transcripts will find the latest ordering information on the web at http://transcripts isu.edu 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 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 performanceA- 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 performanceC- 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 trans-

fer 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; S or U, for Satisfactory/ Unsatisfactory performance; and X for no basis for grade. Each of these grades has special conditions which are described below.

Incomplete Grades

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

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

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

calendar year following the recording of the Incomplete grade.

Pass/No-Pass Grades

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

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

Satisfactory/Unsatisfactory

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

X Grade

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

Withdrawal Grades

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

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

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

Midterm Grades

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

Faculty can choose to report satisfactory grades at their own discretion. Midterm grades are not recorded on the student's transcript and are not used in grade point average computations.

Grade Point Average

A grade point average (GPA) is computed each semester by dividing the sum of the products of grade points and credits for each course by the sum of the credits for the courses. Numerical grade points for each course credit are assigned as shown earlier, on a scale in which an A is 4.00 points and an F is 0.00 points. For purposes of calculating grade points and averages, the plus (+), if present, increases the grade's value by .3 and minus (-) decreases the grade's value by .3 (e.g., a grade B+ is equivalent to 3.3 and A- is 3.7).

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

To maintain "academic satisfactory progress" and avoid probation and/or academic dismissal, a student must maintain a minimum Idaho State University GPA of 1.75 up to 25 credits and an Idaho State University GPA of 2.0 after earning 26 or more credits.

Credits and Grades for Transfer Courses

When students transfer credit to Idaho State University, the University reserves the right to reclassify credit designated as correspondence, extension, credit by examination and repeated credit according to its own policy governing the acceptance and limitations of such credit. Grades transferred from other institutions will be converted to the equivalent grades at Idaho State University by the registrar. Where there is a question as to whether transferred courses satisfy

specific departmental requirements, the head of the department concerned will make the interpretation.

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

Awarding of Credit from Non-Accredited Institutions

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

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

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

- a) wishing to have certain courses from the non-accredited 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.

- The petition to be filed by the students will specify consecutive terms of undergraduate courses on the transcript to be disregarded.
- Academic renewal may be awarded one time only.
- 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.
- Students should be aware that this policy MIGHTNOTBEACCEPTED 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 Academic Difficulty and 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:

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

Withdrawal Procedures

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

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

Before Withdrawal Deadline (see Class Schedule for dates):

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

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

After Withdrawal Deadline (see Class Schedule for dates):

After the deadline, all withdrawals are handled by petition to the Dean of the College in which the student is enrolled. (College of Technology students should contact the Student Services Office.) The dean will follow the same procedure used in the petitioning process for considering extraordinary academic issues.

Medical Withdrawal Policy*

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

Voluntary 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 Weekconsult Class Schedule) has passed, a student can still seek a medical withdrawal designation. First, the student fills out a petition for hardship withdrawal through the dean's office of the college in which the student is enrolled (Arts and Letters for those students not yet affiliated with any college). If the 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 examinations transferred from another institution is subject to evaluation based on the rules and regulations of Idaho State University. Transfer students need to submit official CLEP score reports for Idaho State University evaluation. CLEP credits cannot be granted for college courses previously taken. Credit from CLEP is classified as non-resident credit.

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

Counseling and Testing Center, 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.

- Compass placement examinations are not challenge examinations.
- Only one challenge examination for the course in question is allowed.
- When a challenge examination is taken, whatever grade is earned is recorded. Should the grade from a challenge examination be undesirable to the student, the student may take the course for credit to change the grade.
- Credits obtained by challenge examination are not used in determining a semester's credit load or for financial aid purposes in the semester in which the examination is taken.
- Grades obtained by challenge examination are not used in determining grade point average for that semester, but are used in calculating the cumulative grade point average.
- A student may complete a total of 24 credits by challenge examination toward an associate degree.
- A student may complete a total of 48 credits by challenge examination toward a baccalaureate degree.
- The cost of each credit earned by challenge examination is 33% of the current cost per credit hour, payable to the Idaho State University Cashier's Office prior to the examination.
- Credits earned by passing a challenge examination are considered resident credit.

Credit for Military Service (Military Transcript Information)

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

Credit through DANTES

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

examinations, while subject-area CLEP examinations may satisfy specific 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 collegelevel 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.

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

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

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 selfpaced 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 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 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 CTech 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 completed in the A.A.		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	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.

CREDITS REQUIRED

**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 in Health Science (B.S.H.S.) program is to allow students who have graduated from or are enrolled in health occupations training at the level of an associate degree to pursue a bachelor's degree with an advanced general health science focus. This degree provides a curriculum for students who desire an education that can serve as a foundation for additional professional or graduate work in several health science professions, including medicine, dentistry, hospital administration, medical technology, physical therapy, and occupational therapy. All students are encouraged to work closely with their associate degree program advisors to ensure that the courses they plan to take will meet the students' specific career goals.

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

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

See a complete description of this degree in the Health Occupations Department in the College of Technology section of this catalog.

College of Technology Student Services RFC Building (#48) (208) 282-2622

Bachelor of University Studies

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

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 4490 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 Letters.

Dental Education

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

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

ELS Language Center

Gordon E. Clark, Director

Continuing Education Building 1001 N.7th Ave. Stop 8084 Pocatello ID 83209-8084

(208) 282-5201

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

As an intensive, preparatory ESL program, ELS supplements Idaho State University's existing English for Speakers of Other Languages (ESOL) program housed in the Center for Teaching and Learning. The ESOL program provides tutorial and other

support services for international students already enrolled at Idaho State University. ELS, by contrast, serves as an initial point of entry for 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 support fee to the University of Utah for each Idahoan admitted to the program under this agreement. For further information, contact:

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

Oak Ridge Associated Universities

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

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

Veterinary Medicine

Washington State University Regional Program in Veterinary Medicine

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

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

or

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

Western Interstate Commission for Higher Education (WICHE) Programs

Professional Student Exchange Program

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

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

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

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

Western Regional Graduate Program

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

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

Western Undergraduate Exchange

The Western Undergraduate Exchange (WUE) is a WICHE program that allows undergraduate students residing in 12 participating states the opportunity to enroll in 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/

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.

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 webbased distance education in many academic areas, both online and as a supplement to compressed video and traditional classroom settings.

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

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

Idaho State University Education Centers

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

Idaho State University-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 professionaland 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 crosscountry ski at adjacent Freeman Park, jog on the paved riverside greenbelt, or watch University Place's resident bald eagles and ospreys soar above the river.

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

Idaho State University-Meridian

Dean, Academic Programs: 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 in the Division of Health Sciences oversees third- and fourth-year professional pharmacy students, including clinical rotations in the Meridian area. Other programs housed at Idaho State University-Meridian include a dietetic internship and a dental residency program.

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

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

Idaho State University-Twin Falls

Director, Academic Programs: Ms. Chris Vaage

Idaho State University—Twin Falls
Evergreen Building, Suite B-40
College of Southern Idaho
PO Box 1238
Twin Falls, ID 83303
(208) 736-2101 • (208) 282-4840

Idaho State University has offered courses

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

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

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

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

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

Division of Continuing Education and Conference Services

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

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

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

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

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

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

CEU Program

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

New Knowledge Adventures and Friends for Learning

Under the direction of the former Elderhostel organization, now known as Road Scholar, Idaho State University has developed these programs for Idahoans 50 years and older, featuring member-directed, peer-led programs throughout the fall and spring semesters, and short courses in a wide variety of areas. Members join for one semester at a time and all programs are open to them in Pocatello (New Knowledge Adventures) and Idaho Falls (Friends for Learning).

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

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 occupations that fit with your personality and interests. We can assist you with internship opportunities, resumes and cover letters, interviewing, on-campus recruiting, and other job search strategies. We also offer job listings which include full-time opportunities to part-time and temporary positions. Throughout the year 6 different career-related fairs are offered to help students find a broad range of positions and career information.

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

C. W. HOG

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

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

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

The Center's primary focus is to assist ethnic and international students and organizations. We seek both to enhance their experience at Idaho State University and to assist them in contributing to campus diversity and cultural competency. In addition, the Center develops, promotes, and delivers campus-wide activities directed toward enhancing multicultural understanding. The Center provides orientation sessions to American minority students to inform them about the University culture and expectations. The Center also houses audio, video, and printed material, both historical and current, related to diversity and multicultural issues.

Early Learning Center (ELC)

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

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

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

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

Janet C. Anderson Gender Resource Center

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

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

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

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

 During spring semester, we host the annual Art of Gender in Everyday Life academic conference. The Center also sponsors invited lectures on an irregular basis.
- · Services:
 - Project Hope: Staffprovide educational trainings on sexual and domestic violence and stalking as well as coordinate awareness events, including Take Back the Night (April) and Walk a Mile in Her Shoes (October).
 - Project W.I.S.E. (Women's Issues and Sexual Empowerment):
 Aimed primarily at heterosexual women between the ages of 18 and 25, a population determined to be at an increased risk for HIV, W.I.S.E. seeks to empower women to make better choices about their sexual activities.
- **Resources:** The Center library holds books, magazines, and pamphlets on a variety of gender-related topics. Materials may be borrowed for up to a month.

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

The Anderson Center is open to all members of the Idaho State University community regardless of gender identification, sexual orientation, ethnic or cultural background, religion, abilities, or age—everyone is welcome! Everyone who is a part of the Center, whether staff, intern, or volunteer, strives to ensure that all Center services and activities will be accessible and available,

provided in safe and comfortable surroundings, of high quality, and of interest to the Idaho State University community. The opportunities at the Center are limited only by the imaginations of those who choose to participate.

Leadership Development Program

The Idaho State University Leadership Program was created to help ISU students 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 Letters. For more information about the LEAD program, contact:

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

Outdoor Adventure Center

Pond Student Union, First Floor (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 staffare invited to participate in any or all of the Outdoor Adventure Center's activities. The Center offers common adventure based outings and classes such as canoeing, climbing, cross-country skiing, kayaking, rafting, backpacking, caving, mountain biking, horseback riding, mountaineering, orienteering, and camping. Rental equipment is available for a variety of outdoor activities. The Center also teaches special topic workshops on topics such as avalanche awareness, backcountry survival and the Leave No Trace ethics.

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

Visit our website at www isu.edu/outdoor

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 Pond Student Union, First Floor 921 S 8th Ave Stop 8118 (208) 282-3451

The Student Activities Board is responsible for many of the entertainment and social programs on campus. This student committee has the responsibility of programming movies, dances, homecoming, musical entertainment, speakers, family programming, and many other activities.

The Student Activities Board provides valuable leadership experience for its members, who learn to maintain and work within a budget, negotiate and fulfill contractual details, arrange publicity, work with committee members, and coordinate all details associated with event production.

Student Employment

(See Career Center) (208) 282-2778

Student Health Center

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

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

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 Health Center 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 Health Center Pharmacy. A valid Bengal ID card is required to obtain services.

Student Organizations & Greek Life

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

http://www.isu.edu/stdorg

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

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

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

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

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

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

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

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

Students' Community Service Center (SCSC)

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

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

University Counseling and Testing Services

In Pocatello:

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 the Registrar 921 S 8th Ave Stop 8196 Pocatello, ID 83209-8196 (208) 282-2676

http://www.isu.edu/areg/veterans/

The Veterans Sanctuary Program

The Veterans Sanctuary is a nationalaward-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.

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, 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 academic semesters, are 8 a m. - 5 p m. Monday through Friday. For Wellness Center activities and information during the Summer term, please contact the Department of Health and Nutrition Sciences at (208) 282-2729; office hours are 7:30 a.m. through 4 p m., Monday through Friday.

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

All-University Academic Services

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 academic success classes, advising, tutoring, the Service-Learning Program, the federally-funded TRiO Program, and the University Honors Program.

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

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.

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 designed 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, and support in developing effective strategies for academic success.

Students are welcome to contact the Central

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

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. Concurrent registration in a mathematics course is recommended. 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

Clustered Learning for Academic Student Success (C.L.A.S.S.)

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

College Learning Strategies

The College Learning Strategies Program offers a one-credit course, College Learning Strategies (see ACAD 1101 above). 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.

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).

English for Speakers of Other Languages (ESOL)

The English for Speakers of Other Lan-

guages (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 Letters section of the catalog for the description of AMST 100 Introduction to American Culture and Language (3 credits, for a letter grade). See the description of ENGL 100 Introduction to Academic Writing and Speaking for Non-Native Speakers of English (3 credits, graded Satisfactory/Unsatisfactory) in the in the Department of English and Philosophy, also in the College of Arts and Letters.

First Year Seminar (FYS)

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

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 appropriate Advisement and Registration Fundamentals worksheet at http://www.isu.edu/advising/madvising.shtml. Undergraduate international students may see the Director of International Recruitment in the Admissions 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 Uni-

versity is not intended to replace College or Faculty advising.

Mathematics Center

The Mathematics Center provides dropin tutoring services to help students on the Pocatello and Idaho Falls campuses understand concepts in math and mathrelated 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 Center

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

Native American Academic Services

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

TRiO Student Services

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

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

Note: TRiO eligibility criteria will vary with individual programs.

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

PRE-COLLEGE PROGRAMS

Educational Talent Search (ETS) works with eligible program participants who are in the 9th through 12th grades and have potential to be successful in college. Students receive tutoring, assistance with study skills, organizational skills, test taking strategies, and career exploration. They also attend field trips and cultural activities, and participate in community service projects and technology workshops. During their senior year they are also provided help with admission/financial aid forms and obtaining other information that will prepare them to enter the college of their choice.

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 postsecondary 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, and pursuit of graduate school educational opportunities.

University Honors Program

Cynthia D. Hill, Director

Mail to:

921 S 8th Ave Stop 8010 Pocatello ID 83209-8010 Office: (208) 282-4945 Fax: (208) 282-3186

e-mail: hillcynt@isu.edu

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;
- 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.

Please check **www.isu.edu/honors** for each year's core curriculum themes and additional information. Questions about the University Honors Program and courses may be directed to the address above.

The University Honors Program curriculum fulfills many of the General Education Requirements: 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 semi-

nars, 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, 104 and 11A.

Second Year

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

Third and Fourth Years

HONS 391	Honors Interdisciplinary Seminar (1 cr, repeated)	2 cr
Honors Contract co	ourses (see explanation above)	
in student's major of	or minor	6 cr
Denartmental Cans	tone 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 1 credit. Exposes students to a range of critical and theoretical approaches within various disciplines in multiple seminars. Students formulate research problems and incorporate the results of their research into a seminar paper and/or oral presentation. May be repeated for up to 4 credits with different content. F, S

HONS 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 Letters

Interim Founding Dean:

KandiTurley-Ames, Ph.D.

Associate Dean, Division of Fine Arts and Humanities:

Randy Earles, Ph.D.

Associate Dean, Division of Social and Behavioral Sciences:

Ron Hatzenbuehler, Ph.D.

Programs of study in the College of Arts and Letters introduce students to ways of thinking and expression intrinsic to the arts, humanities, and social and behavioral sciences. Students are thereby aided in the development of intellectual skills and personal values which serve them in career planning and lifelong learning. The College is organized into a Division of Fine Arts and Humanities, and a Division of Social and Behavioral Sciences.

Curricular offerings in the College lead to Associate of Science, Associate of Arts, Bachelor of Arts, Bachelor of Fine Arts, Bachelor of Music, Bachelor of Science, Master of Arts, Master of Fine Arts, Master of Public Administration, Master of Science, Doctor of Arts, and Doctor of Philosophy degrees. Courses leading to these degrees provide an introduction to a variety of academic disciplines and in-depth specialization in numerous areas. Degrees from programs in the College of Arts and Letters may lead directly to employment in certain occupations or prepare an individual for more advanced study. Students planning to engage in graduate or professional training (for example, law or medicine) should pay particular attention to the admission requirements of the programs that they plan to pursue.

Mission

The College of Arts and Letters offers a variety of academic programs that develop skills in written and oral communication and critical thinking while exploring the diversity and scope of the human experience with both undergraduate and graduate students. Faculty in the College provide instruction and training of superior quality in the fine arts, humanities, social sciences, and behavioral sciences and produce innovative scholarship that advances knowledge. Through student and faculty collaborative endeavors, the Col-

lege promotes opportunities for research and creative activities that investigate and enrich our shared cultural, economic, environmental, health, political, and social systems.

General Education Requirements

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

By meeting these requirements, students develop their critical thinking skills as well as competency in oral, written, and mathematical communication. They also acquire habits of thought traditionally associated with the well-educated person: the ability to analyze and propose solutions to problems; the ability to recognize and assess value structures; and the ability to investigate and understand the literary and expressive arts. The General Education Requirements and Goals are detailed in the Academic Information section of the Catalog.

Transfer Students

Students transferring to Idaho State University who seek a bachelor's degree in the College of Arts and Letters should refer to the section, "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 Letters are outlined under the department headings in the catalog.

The Teacher Education Program

The College of Arts and Letters shares responsibility with the College of Education for the Teacher Education Program. Students may fulfill the requirements of the Teacher Education Program while majoring in a discipline within the College of Arts and Letters. The Teacher Education Program admission and completion requirements are detailed in the College of Education section of this catalog.

Pre-Law Advising

The successful attorney is one who understands how changes within society affect the relationships between and among people. An effective attorney should have an understanding of human behavior; social, political and economic change; our ecological systems; and the general influence of our philosophical, literary, and historical heritage. Hence, the student with a broad undergraduate preparation and a developed insight into many facets of life attains the best educational preparation for the practice of law.

The student who aspires to attend law school should seek the counsel of one of the Pre-Law Advisors:

Dr. Ron Hatzenbuehler, History

Dr. Bruce Loebs, Communication and Rhetorical Studies

Dr. Angela Narasimhan, Political Science

Dr. Tesa Stegner, Economics

These advisors will help create a pre-law curriculum designed to accommodate the student's major and help him/her prepare for the Law School Admission Test and a career in accordance with the principles discussed above.

Bachelor of Arts in General Studies

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

A student's BAGS program must include approved coursework from these areas: a) English composition; b) speech communication; 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.

Upper division courses - At least 48 credits of upper division coursework in the arts and humanities, the social and behavioral sciences, and the physical sciences and mathematics are required, but no 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 General Education Goals as outlined for the Bachelor of General Studies degree (above); 6 additional lower division credits in the arts and humanities; 6 additional lower division credits in the social and behavioral arts; and elective credits from all across the University, to total 64 credit hours.

American **Studies Program**

Director: Terry O. Engebretsen, Ph.D.

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 Letters' 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 Letters, 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)

required C.	ourses (ie er)	
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 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
3. Language	Studies	
ANTH/ENGL/LA	NG 1107 Nature of Language	3 cr
ENGL 2280	Grammar and Usage	3 cr
ENGL 2281	Introduction	
	to Language Studies	3 cr
4. Communic	eation	
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
6. Women Stu	ıdies	

W S 2201 Introduction to Women Studies 3 cr

7. Social Scie	ences: Culture and Soc	iety
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 221	2 Introduction	
	to Folklore/Oral Traditions	3 cr
SOC 2206	Sociological Methods	3 cr
SOC 2206		J 01

8. Social Sciences: Economics and Politics

ECON 1100	Economic Issues	3 cr
ECON 2201	Principles of Macroeconomic	cs 3 cr
ECON 2202	Principles of Microeconomi	cs 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/LAI	NG 1107 Nature of Language	3	cr
ENGL 2211	Introduction		
	to Literary Analysis	3	cr

Required Course:

ENGL 3311	Writing and Research	
	About Literature	3 cı

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
	OR	

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		
	in America and Africa	3	cr
SOC 2248	Social Diversity	3	cr
SOC 3366	The Community	3	cr
* Only one course f	From the HIST $25X$ sequence ma	ıy.	be
applied to the Ame	rican Literature in Context Tr	ac	ck.

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.

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 a	pproved upper-division	
American Indian S	Studies courses	6 cr
DI	. C. II	

Plus one of the following:

ANTH/HIST 2258 Native American History

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 America	ın Indian language course*	3 cr
*minimum of one 3	3-credit course	

3 cr

Contextual Electives:

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

ANTH/ENGL 449	0 Topics in Folklore	3 c1
ENGL 3353	The West	
	in American Literature	3 cı
ENGL 3356	Ethnicity in Literature	3 cı
HIST 2251	Latin America	3 c1
HIST 3307	Early North America	3 cı
HIST 4421	Federal Indian Relations	3 ct
HIST 4435	Colonial Frontiers	
	in America and Africa	3 cı
SOC 2248	Social Diversity	3 ct
SOC 3366	The Community	3 c1

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

-for Communications/Rhetoric:

MC 1119 Introduction to Mass Media 3 cr

Required Courses:

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

Plus one of the following:		
ANTH/ENGL/I	LANG 4455 Introduction	
	to Phonetics	3 c1
ENGL 4485	Linguistic Analysis	3 c
PHIL 4410	Philosophy of Language	3 c

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

Plus three of the following:

At least one must be HIST 1101 or 1102.

11131 1101	roundations of Europe	<i>5</i> CI
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	e following:	
Plus two of the	e following: Federal Indian Relations	3 cr
	U	3 cr 3 cr
HIST 4421	Federal Indian Relations	

in the North American West 3 cr

North American West

Contextual Electives

HIST 4427

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

GEOL/HIST/POLS 4471 Historical Geography

of Idaho

ANTH 2238	Peoples and Cultures	
	of the New World*	3 cr
ANTH 2239	Latino Peoples and Cultures	3 cr
ANTH/ENGL 445	3 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 c1
*(only those offeri	ngs focusing on western people	les)

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 cı
Required (Course	
WS 4401	Feminist Thought	3 cı

Plus at least two of the following:

HIST 4425	Women in
	the North American West 3 cr
SOC 3321	Families in American Society3 cr
WS 3311	American Women's Movements 3 cr

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

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 Correction	s3 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 upperdivision, from the following:

ENGL 3328	Gender in Literature	3 cr
HIST 3307	Early North America	3 cr
HIST 3308	Industrialization and Refor	m
	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 2212Introduction 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	Sociocultural Anthropology	
	Research Methods	3 cr
ANTH 4452	American Indian Verbal Arts	3 cr
ANTH 4472	Native American Arts	3 cr
ANTH/ENGL 4490	Topics in Folklore	3 cr
ENGL 4492	Folklore and Literature	3 cr
Plus 9 credits in co	ourse work related to cultural	
media or a culture	area, approved by the America	an
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)

Introduction to Politics

Framework for Analysis

Required Disciplinary Methods Course:

Required Co	ourses:	
POLS 2221	Introduction	
	to International Relations	3 cr
POLS 3326	Recent American	
	Foreign Policy	3 cr
POLS 3331	Comparative Politics:	

Plus two of the following:

POLS 2202

Plus two of t	he following:	
POLS 4425	Topics in International Polit	ics 3 cr
POLS 4433	Politics of Developing Nation	ons 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:

110 0110 111 1110	same anserprine.	
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 Monarch	v3 cr

HIST 4474	Islam and Nationalism	
	in the Modern World	3 cr
HIST 4429	Foreign Relations Since 1	9003 cr
HIST 4430	Global Environmental His	tory3 cr

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

Required Disciplinary Methods Course:

	Disciplinary 1.1ctilous	Course.
HIST 2291	The Historian's Craft	3 c1

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:

rius two or tii	e ionowing:	
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 1900	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	s 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 Anthropology3 cr

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:

	0	
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: Lat	in
	American Indigenous Resor	urce
	Management	3 cr
HIST 4450	Golden Age Castile	3 cr
HIST 4460	The Global Hispanic Monarc	hy 3 cr
SPAN 3342	Survey of Latin American	
	Literature and Civilization	3 cr
SPAN 4462	Early Twentieth Century	
	Spanish American Literatur	e 3 cr

Contextual Electives

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

ANTH/ENGL 445	3 American Indian Literature	3	cr
ANTH/POLS 4478	8 Federal Indian Law	3	cr
ANTH/POLS 4479	9 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:

	1 00		
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 Cour	rses from English and	
Fine Arts:		
ANTH/ENGL 44	53 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	
ENGL 4480	Varieties of American English	
	NGL Period or Genre Literature	
	om semester offerings with Amer	ican
	to review of American Studies	
director)		
MC 2290	American Broadcasting	3 cr

1110 2270	Timerreum Broudeusumg	
MUSC 1106	American Music	3 cr
THEA 4420	American Theatre History	3 cr

Two courses from History:

cs mom mistory.	
Early North America	3 cr
Industrialization and Reform	
in the United States	3 cr
Modern United States	3 cr
Archaeology and History	
of Southern Idaho	3 cr
Federal Indian Relations	3 cr
Idaho History	3 cr
Women	
in the North American West	3 cr
North American West	3 cr
Colonial Frontiers	
in America and Africa	3 cr
Historical Geography of Idaho	3 cr
es from Political Scien	ce
	Industrialization and Reform in the United States Modern United States Archaeology and History of Southern Idaho Federal Indian Relations Idaho History Women in the North American West North American West Colonial Frontiers

Two courses from Political Science

ANTH/POLS 4478	Federal Indian Law	3 cr
ANTH/POLS 4479	7 Tribal Governments	3 cr
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 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 prog	ram	
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

Consultation course for American Studies majors interested in problems in American Studies not adequately covered by regular offerings; for

AMST 3348 Independent Problems 3 credits.

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: Holmer Research Professor: Maschner Professors: Loether, Lohse 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 crossculturally 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 crosscultural 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 47 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:

Kequii cu Lov	vei 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 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: 1	6 cr

Required Up	per Division Courses:	
ANTH 4401	History and Theory of	
	Sociocultural Anthropology	3 cı
ANTH 4403	Method and Theory	
	in Archaeology	3 c
ANTH 4430	Human Evolution	3 c1
ANTH 4450	Socio-linguistics	3 c1
	OR	
ANTH 4455	Linguistic Analysis I	3 c
	OR	
ANTH 4458	Historical Linguistics	3 c
ANTH 4492	Senior Seminar	3 c
ANTH 4495	Department Colloquium	1 c
	TOTAL:	16 c
IN ADDITION:	Upper Division Anthropolo	gy
	Elective Courses	9 c
ENGL 3307	Professional and	
	Technical Writing	3 c
MATH 3253	Introduction to Statistics	3 c
	TOTAL:	15 cı

Minor in American **Indian Studies**

Required Courses

ANTH 2238	People and Cultures	of the	
	New World		3 cr
ANTH/HIST 2258	Native American Hi	story	3 cr
ANTH/ENGL 4453	American Indian Lit	erature	3 cr
		TOTAL:	9 cr

Plus FOUR of the following courses:

ANTH 1101	Elementary Shoshoni I	4 cr
ANTH 1102	Elementary Shoshoni II	4 cr
ANTH 2206	Indigenous Traditional Parentin	g3 cr
ANTH 3301	Introduction	
	to Shoshoni Folklore	3 cr
ANTH 4406	American Indian Health Issue	s 3 cr
ANTH 4421	Federal Indian Relations	3 cr
ANTH 4452	American Indian Verbal Arts	3 cr
ANTH 4454	Survey	
	of American Indian Language	s 3 cr
ANTH 4472	Native American Arts	3 cr
ANTH 4474	Topics in Indian Education	3 cr
ANTH/POLS 4478	Federal Indian Law	3 cr
ANTH/POLS 4479	Tribal Governments	3 cr
ANTH 4489	Topics	
	in American Indian Studies	3 cr
	Minimum Total:	21 cr

Minor in **Anthropology**

Required Courses

required Cot	11 303	
ANTH 1107	The Nature of Language	3 c1
ANTH 2203	Introduction to Archaeology	3 c1
ANTH 2205	Introduction to Archaeology	
	Laboratory	1 cı
ANTH 2230	Introduction to Biological	
	Anthropology	3 c1
ANTH 2250	Introduction to Sociocultural	
	Anthropology	3 c1
IN ADDITION:	Upper Division	
	Anthropology Courses	9 cı
	TOTAL: 2	22 cr

Minor in Latino **Studies**

Required Courses

ANTH 2230	introduction to		
	Sociocultural Anthropology	3 cr	
ANTH 2239	Contemporary Latinos		
	in the U S	3 cr	
	OR		
ANTH 2239	Peoples of Mexico		
	Through Film	3 cr	
	OR		
ANTH 2239	Culture South of the Border	3 cr	
HIST 2251	Latin America	3 cr	
One year intermediate Spanish:			
SPAN 2201-2202	Intermediate Spanish	8 cr	

SPAN 3301-3302	Spanish Conversation			
	and Composition	6 cr		
	OR			
Other with permission of Latino Studies				
Director		6 cr		

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

(3 credits must be 4000 level or above):

A	ANTH 2239	Contemporary Latinos	
		in the U S	3 cr
A	ANTH 2239	Peoples of Mexico	
		Through Film	3 cr
A	ANTH 2239	Culture South of the Border	3 cr
A	ANTH 2239	Ancient Meso America	3 cr
A	ANTH 2239	Other approved classes	
A	ANTH 4487	Ethnographic Fieldschool* 3	-6 cr
A	ANTH 4489	Latin American Indigenous	
		Resource management	3 cr
F	HIST 4450	Golden Age Castile	3 cr
F	HIST 4460	The Global Hispanic Monarchy	y3 cr
S	SPAN 3342	Survey of Latin American	
		Literature and Civilization	3 cr

SPAN 4462	Early Twentieth Century	
	Spanish American Literature	3 c
*When offered in	Mexico, Guatemala and other	
Latin American co	untries	

Minor in Linguistics

Required Courses

PHIL 4410

ANTH/LANG/ENGL 110/		
	Nature of Language	3 cr
ENGL 2281	Introduction to	
	Language Studies	3 cr
ANTH/LANG 4455		
	Phonetics	3 cr
	OR	
ENGL 4485	Linguistic Analysis	3 cr

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

Philosophy of Language

3 cr

OR

One year of a foreign language*

ANTH/ENGL 3367 Language in			
	the United States	3 cr	
ANTH 4450	Socio-linguistics	3 cr	
ANTH 4452	Survey of American Indian		
	Languages	3 cr	
ANTH/LANG 445	55		
	Phonetics	3 cr	
ANTH/LANG 445	66 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/LA	NG 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	
st 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. PREREQ: ANTH/SHOS 2201 or equivalent. 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 2230 Introduction to Biological Anthropology 3 credits. Introduction to human biology, including human origins, evolution, human adaptation, and diversity. F

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

ANTH 2237 Peoples and Cultures of the Old World 3 credits. Examination of human social and cultural diversity from different parts of the Old World. Topics include social structure, ecology, religion, politics, and language. May be repeated for up to 6 credits. Satisfies 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. PRE-REQ: ANTH 2250 or permission of instructor. S

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

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

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

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

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

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

ANTH 4408 Topics in Medical Anthropology 3 credits. Rotating topics, including international health issues, ethno-psychiatry, ethnomedicine and non-western healing systems. May be repeated for up to 6 credits. PREREQ: Permission of instructor. D

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

ANTH 4410 Introduction to Cultural Resources Management 3 credits. Introduction to CRM reviewing historic preservation and federal legislation as they pertain to archaeology; practical experience in site survey and recording. PREREQ: ANTH 2203 or permission of instructor. D, W

ANTH 4413 Old World Archaeology 3 credits. Prehistory of the Old World. Precise areal focus and periods may vary. Includes both theory and exposition. May be repeated for up to 6 credits with different course topics. PREREQ: ANTH 2203 or permission of instructor. D

ANTH 4414 New World Archaeology 3 credits. Examination of the prehistory of the Americas with emphasis on the North American Continent. May be repeated for up to 6 credits with different course topics. PREREQ: ANTH 2203 or permission of instructor. D

ANTH 4430 Human Evolution 3 credits. Examines relevant topical issues/problems in human evolution from a bioanthropological, ecological, and demographic perspective, including paleoanthropology, evolutionary genetics, and the impact of health, nutrition, and disease in human populations. May be repeated for up to 6 credits. PREREQ: ANTH 2230 or permission of instructor. D

ANTH 4432 Human Osteology 3 credits. Provides a comprehensive, working knowledge of the human skeletal system presented in a laboratory context, including identification of individual bones, osteogenesis, pathologies, demography, and the applications of knowledge and techniques in real world settings. PREREQ: ANTH 2230 or permission of instructor. D

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

ANTH 4449 Sociocultural Anthropology Research Methods 3 credits. Study of the methods of field work and analysis in sociocultural anthropology; design of field studies; data types; techniques for collection and analysis of empirical data; report writing; experimental field projects. AF

ANTH 4450 Socio-linguistics 3 credits. Study of the patterned covariation of language and society, social dialects and social styles in language; problems of bilingualism, multilingualism, creoles and language uses. 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. PRE-REQ: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. PRE-REQ:ANTH/ENGL/LANG 1107 or permission of instructor. AF

ANTH 4455 Phonetics 3 credits. Introduction to descriptive linguistics focusing on the phonetics and phonetic phenomena of English and the other languages of the world. Extensive practice in perception and production of such phenomena. Cross-listed as LANG 4455. PREREQ: ANTH/ENGL/LANG 1107. D

ANTH 4456 Phonology and Morphology 3 credits. Phonological theory and analysis; current theories in morphology. Phonological rules, representations, underlying forms, derivations, justifications of phonological analyses; 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

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

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

ANTH 4464 Analytical Methods 3 credits. Examination of and practical experience in applying advanced quantitative, qualitative, and laboratory methods and analyses. May be taken for up to 6 credits. PREREQ: ANTH 4463 or permission of instructor. D

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

ANTH 4474 Topics in Indian Education 3 credits. Rotating review of topics dealing with issues in Indian education. Consult current schedule of classes for exact course being taught. D

ANTH 4478 Federal Indian Law 3 credits. Examination of tribal governments; their relationship with the federal government; sovereignty, jurisdictional conflicts over land and resources; and economic development. 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 Topics in Sociocultural Anthropology 3 credits. Selected topics in social, political, economic, and religious systems/ organization. Intensive survey of literature and analysis of relevant materials. See current schedule of classes for exact course titles. May be repeated for up to 9 credits with different course topics. PREREQ: Upper Division status or permission of instructor. D

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

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

ANTH 4484 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 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 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, Jenkins, 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 number 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 at the department's discretion (D). Summer school graduates must exhibit during the spring semester preceding graduation. At least 36 of the credits earned toward graduation must be in upper division courses (3000 or 4000 numbers) and sixteen of these must be in Art.

Bachelor of Arts in Art

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

Required Courses

required Co	ui ses	
ART 1100	Survey of Art	3 c
ART 1101	History of Western Art I	3 c
ART 1102	History of Western Art I	I 3 c
ART 1103	Creative Process	3 c
ART 1104	Creative Process	3 c
ART 1105	Drawing I	3 c
ART 1106	Drawing II	3 c
ART 4494	Senior Presentation	1 c
IN ADDITION:	Art electives	27 c
	TOT	AL: 49 c

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:

required	Courses.	
ART 1100	Survey of Art	3 cı
ART 1101	History of Western Art I	3 cı
ART 1102	History of Western Art II	3 cı
ART 1103	Creative Process	3 cı
ART 1104	Creative Process	3 cı
ART 1105	Drawing I	3 cı
ART 1106	Drawing II	3 cı
ART 2201	Intermediate Drawing	3 cı
ART 2231	Introduction to Printmaking	3 cı
ART 2241	Introduction to Painting and	
	Composition	3 c1
ART 2251	Introduction to Metals/	
	Jewelry	3 c1
ART 2261	Introduction to Weaving	3 cı
ART 2271	Introduction to Ceramics	3 c1
ART 2281	Introduction to Sculpture	3 cı
ART 3301	Anatomy Drawing and	
	Painting	3 cı
ART 3310	Professional Practice	
	and Display	3 cı
ART 4494	Senior Presentation	1 cı
IN ADDITIO	N: Upper-division electives:	
	Studio electives	18 cı
	Art history electives	6 cı
	TOTAL: 1	73 cı

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:

Requirea C	ourses:	
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 th	e 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

In Addition:

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

Two dimensional (2D):

ART 2231	Introduction to Printmaking	3 01
	- C	5 (1
ART 2241	Introduction to Painting and	
	Composition	3 cr
ART 2261	Introduction to Weaving	3 cr

Three dimensional (3D):

ART 2251	Introduction to	
	Metals/Jewelry	3 cr
ART 2271	Introduction to Ceramics	3 cr
ART 2281	Introduction to Sculpture	3 cr
	TOTAL	: 21 cr

Art Courses

ART 1100 Survey of Art 3 credits. A study of the elements of visual art, various media and techniques of artistic expression, with a brief historical overview. When appropriate, gallery tours and presentations by visiting artists will be included. 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 metalsmithing 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. D

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, répoussé 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, répoussé 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 arthistory 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 3382. F, S

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

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

ART 4491 Advanced Papermaking 3 credits. 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, Jenkins

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

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 111; 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 Communication and Rhetorical Studies

Chair and Professor: DiSanza Professors: Gribas, Legge, Loebs Associate Professor: Partlow-Lefevre Lecturers: Czerepinski, Dixon, Eckert, Robinson, 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, 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.
- The ability to communicate effectively in writing.
- 3. The ability to communicate effectively through oral presentation.
- 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	Academic Internship	1-6 cr
COMM 3355	Nonverbal Communication	3 cr
COMM 4440	Gender and Communication	3 cr
COMM 4442	American Rhetoric	
	and Public Address	3 cr
COMM 4447	Rhetoric of Hitler	
	and Churchill	3 cr
COMM 4451	Recent Rhetorical Issues	3 cr
	TOTAL:	45 cr

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:

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 2234	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

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 cred	its 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 credit	ts 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 Speaking3 credits. Advanced speech course emphasizes practical speaking needs of business and professional people. PREREQ: COMM 1101. F, S

COMM 2208 Group Communication 3 cred-

its. 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 nonverbal, 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 persuasion) 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

Program Director and Professor: Stegner Professors: Benson, Hill, 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:

- Learn how economists interpret and apply economic data to understand and predict economic events.
- Develop an ability to objectively and critically identify and analyze economic issues
- 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 back-ground 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 o	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
DOLG 2245	Tanaharan dan salah di Tanah	

POLS 3342 American Legal Systems 3 cr
POLS 3345 Jurisprudence and Legal
Systems 3 cr
POLS 4442 Constitutional Law 3 cr
POSYC 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

Economics Minor

Required Courses:

ECON 2201-220	2 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 cr	edits *

TOTAL: 21 c

* 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 general 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 Professor: Swetnam

Professors: B. Attebery, J. Attebery, Baergen, A. Johnson, Levenson, Schmidt, Worsham

Associate Professors: Engebretsen, Hellwig, Klein, Launspach, Montgomery, Skidmore, Whitaker, Wolter

Assistant Professors: Goslee, Petit, Shutters

Senior Lecturers: Norton, Pfister Associate Lecturers: Blair, Dodd, C. Donovan, Hall, S. Johnson, Lattin, McCurdy, Schultz Hurst

Assistant Lecturers: W. Donovan,
Pelletti, Robinson, Shein, Stubbs
Adjunct Faculty: Allen, Brooks,
Brumfield, Charles, Christensen,
Cole, Dineen, Graham, Haeberle,
Hardy, Harker, Hatch, Keezer, Olsen,
Reedy, Tighe, VanBezooyen, Wall,

Emeriti: Cantrill, Goldbeck, Huck, Jacob, Kijinski, K. King, W. King, Mullin, Myers, Schow, Smith, Tate, D. Walsh, M. E. Walsh

Wood

The Department of English and Philosophy offers broad curricula in two humanistic disciplines. English studies include courses that treat the nature of language, courses that explore human experience as represented in imaginative literature, and courses that develop general and specialized writing skills. The philosophy curriculum examines such topics as the nature of reality and being, the ways that knowledge is acquired, and the bases for ethical choices.

These curricula serve two broad purposes: 1) they contribute to the general education, the personal enrichment and fulfillment, of students in all disciplines, and 2) they lead to degrees with majors or minors. Specifically, the department offers the B.A., 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.
- 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.
- 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.
- Students will be aware of major philosophers' arguments relevant to that position.

- Students will be aware of the larger historical and intellectual context of the problem addressed.
- 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, and 1102).

Option 1—Literary

Take these required courses:

ENGL 2211	Introduction to	
	Literary Analysis	3 cr
ENGL 2280	Grammar and Usage	3 cr
	OR	
ENGL 2281	Introduction to	
	Language Studies	3 cr
ENGL 3311	Writing and Research	
	About Literature	3 cr
ENGL 4491	Senior Seminar in Literature	3 cr

Choose two of the following survey courses:

ENGL 2267	Survey of British Literature 1.3 cr
ENGL 2268	Survey of British Literature II 3 cr
ENGL 2277	Survey of American Literature I3 cr
ENGL 2278	Survey of American Literature II 3 cr

Choose one of the following genre study courses:

ENGL 3321	Genre Studies in Drama 3 cr
ENGL 3322	Genre Studies in Poetry 3 cr
ENGL 3323	Genre Studies in Prose Fiction 3 cr
ENGL 3324	Genre Studies in
	Prose Non-Fiction 3 cr
ENGL 3327	Special Topics in Genre 3 cr

Choose two of the following period

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courses:		
ENGL 4461	Studies in Classical Literature	3 cr
ENGL 4462	Studies in Medieval Literature	3 cr
ENGL 4463	Studies in	
	Renaissance Literature	3 cr
ENGL 4464	Studies in	
	Seventeenth-Century Literature	3 cr
ENGL 4465	Studies in	
	Eighteenth-Century Literature	3 cr
ENGL 4466	Studies in Early Nineteenth-	
	Century Literature	3 cr
ENGL 4467	Studies in Late Nineteenth-	
	Century Literature	3 cr
ENGL 4468	Studies in Early Twentieth-	
	Century Literature	3 cr
ENGL 4469	Studies in	
	Contemporary Literature	3 cr

Choose one of the following major figure courses:

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

Choose one of the following themes and identity courses:

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

Choose one of the following language studies:

Studies in Grammar	3 cr
Special Topics in Linguistics	3 cr
Linguistic Analysis	3 cr
Old English	3 cr
History of the	
English Language	3 cr
Introduction to	
Sociolinguistics	3 cr
	Special Topics in Linguistics Linguistic Analysis Old English History of the English Language Introduction to

Electives

Choose 9 additional elective credits from English courses listed in Literary Option, Professional Writing Option and Creative Writing Option, or the following courses, 6 credits of which must be upper-division courses:

ENGL 1110	Introduction to Literature	3	cr
ENGL 1115	Major Themes in Literature	3	cr
ENGL 2212	Introduction to		
	Folklore/Oral Tradition	3	cr
ENGL 2257	Survey of World Literature I	3	cr
ENGL 2258	Survey of World Literature II	3	cr
ENGL 3305	Art of the Film II	3	cr
ENGL 3333	Themes in Literature	3	cr
ENGL 3341	The Bible as Literature	3	cr
ENGL 3342	The West		
	in American Literature	3	cr
ENGL 3367	Language in the United States	3	cr
ENGL 4440	Philosophy and Literature	3	cr
ENGL 4455	Nationality and Literature	3	cr
ENGL 4456	Comparative Literature	3	cr
ENGL 4477	Shakespeare in Performance	2	cr
ENGL 4490	Topics in Folklore	3	cr
ENGL 4492	Folklore and Literature	3	cr

Option 2— Professional Writing

45 cr

LITERARY ENGLISH MAJOR TOTAL:

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

Take these required courses:

ENGL 2211	Introduction to	
	Literary Analysis	3 cr
ENGL 2280	Grammar and Usage	3 cr
	OR	
ENGL 2281	Introduction to	
	Language Studies	3 cr
ENGL 3307	Professional and	
	Technical Writing	3 cr
ENGL 3308	Business Communications	3 cr
ENGL 3311	Writing and Research	
	About Literature	3 cr
ENGL 4401	Advanced Composition	
	and Prose Analysis	3 cr
ENGL 4410	Writing Internship	3 cr
PHIL 2201	Introduction to Logic	3 cr

Choose one of the following creative writing courses:

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

Choose three of the following writing and media courses:

ENGL 4410	Writing Internship	
	(3 further credits)	3 cr
MC 2215	Graphic Design	3 cr
	OR	
MC 4415	Advanced Graphic Design	3 cr
MC 2230	Introduction to Photography	3 c1
	OR	
MC 4410	Advanced Photography	3 c1
MC 3325	Editing for Print Media	4 cr
MC 3327	Magazine Article Writing	3 c1
MC 3341	Introduction to Public Relations	3 cr
MC 3355	Advertising Copywriting	3 c1
MC 4445	Editorial Writing	3 c1
COMM 4437	Rhetorical Theory	3 cr

Choose two of the following survey courses:

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

Choose one of the following genre study courses:

ENGL 3321	Genre Studies in Drama	3 cr
ENGL 3322	Genre Studies in Poetry	3 cr
ENGL 3323	Genre Studies in Prose Fict	ion3 cr
ENGL 3324	Genre Studies in	
	Prose Non-Fiction	3 cr

PROFESSIONAL WRITING ENGLISH MAJOR TOTAL: 45 G

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. 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.

Take these required courses:

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

Choose one of the following professional writing courses:

ENGL 3307	Professional and	
	Technical Writing	3 c1
ENGL 3308	Business Communications	3 c1

Choose one of the following language studies courses:

ENGL 4481	Studies in Grammar	3 cr
ENGL 4485	Linguistic Analysis	3 cr
ENGL 4487	History of the	
	English Language	3 cr

Choose two (at least one upper division) of the following humanities

courses.		
ART 4422	World Arts	3 cr
	OR	
ART 4423	Nineteenth Century Art	3 cr
ART 4424	Twentieth Century Art	3 cr
	OR	
ART 4425	Contemporary Art Forms	3 cr
ENGL 2212	Introduction to Folklore	3 cr
	OR	
ENGL 4490	Topics in Folklore	3 cr
ENGL 3305	Art of the Film II	3 cr
MC 2215	Graphic Design	3 cr
	OR	
MC 4415	Advanced Graphic Design	3 cr
MC 2230	Introduction to Photography	3 cr
	OR	
MC 4410	Advanced Photography	3 cr
MC 3300	Television Production	3 cr
MC 3327	Magazine Article Writing	3 cr
THEA 2251	Beginning Acting	3 cr
	OR	
THEA 2252	Intermediate Acting	3 cr

Choose two of the following survey courses:

ENGL 2267	Survey of British Literature	I 3 cr
ENGL 2268	Survey of British Literature I	I 3 cr
ENGL 2277	Survey of American Literature	I3 cr
ENGL 2278	Survey of	
	American Literature II	3 cr

Choose one of the following genre study courses:

ENGL 3321	Genre Studies in Drama	3 cr
ENGL 3322	Genre Studies in Poetry	3 cr
ENGL 3323	Genre Studies in Prose Fict	ion3 cr
ENGL 3324	Genre Studies in	
	Prose Non-Fiction	3 cr

CREATIVE WRITING ENGLISH MAJOR TOTAL: 45 of the second sec

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, and 1102—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 3307 or ENGL 3311.

Minor in English: Writing

Twenty-one hours of credit in English, including ENGL 2280 or 2281; 3311, and 4487, plus four other courses, of which at least two must be upper-division, from among the following courses: ENGL 1107, 2206, 3306, 3307, 4401, 4406, 4481, 4485, PHIL 2201.

Minor in English: Creative Writing (21 credits)

Required Courses:

ENGL 2206	Introduction	
	to Creative Writing	3 c
ENGL 2211	Introduction	
	to Literary Analysis	3 c
ENGL 3306	Intermediate	
	Creative Writing Workshop	3 c
ENGL 4406	Advanced	
	Creative Writing Workshop	3 c
ENGL 4494	Senior Seminar	
	in Creative Writing	3 c
CI		

Choose one:

Choose one.			
ENGL 2257	Survey of World Literature I	3	cr
ENGL 2267	Survey of British Literature I	3	cr
ENGL 2277	Survey of American Literature 1	3	cr
ENGL 2258	Survey of World Literature II	3	cr
ENGL 2268	Survey of British Literature II	3	cr
ENGL 2278	Survey of American Lit II	3	cr
Choose one upper-	-division elective	3	cr

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

Prerequisites and Standards

Students must complete Goal 1 or its equivalent before enrolling in 2000-level ENGL courses.

At least one semester of lower-division literature is prerequisite for 3000-level literature courses.

To enroll in a 4000-level course, students must both complete all 2000-level English requirements (ENGL 2211, 2280/2081, and two Literature survey courses) and must have junior or senior standing.

To graduate as an English major or with an English minor, a student must maintain at least a 2.25 grade point average in courses within the English curriculum.

Some courses may have additional prerequisites.

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

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. Writing-intensive course. Teaches students how to perform close readings of poetry and prose. Introduces major theoretical approaches to literature. Includes orientation to finding and evaluating secondary criticism. PREREQ: 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 British Literature I (Beginnings through 18th Century) 3 credits. Examination of major works and authors in historical perspective, with emphasis upon literary and cultural backgrounds. R1

ENGL 2268 Survey of British Literature II (19th Century to Present) 3 credits. Examination of major works and authors in historical perspective, with emphasis upon literary and cultural backgrounds. R1

ENGL 2277 Survey of American Literature I (Beginnings to 1860) 3 credits. Examination of major works and authors in historical perspective with emphasis upon literary and cultural backgrounds. R1

ENGL 2278 Survey of American Literature II (1860 to present) 3 credits. Examination of major works and authors in historical perspective with emphasis upon literary and cultural backgrounds. R1

ENGL 2280 Grammar and Usage 3 credits. Introduction to the grammar of standard written English. The course is designed to give students an improved knowledge of grammar in order to improve usage and writing skills at both the sentence and paragraph level. S

ENGL 2281 Introduction to Language Studies 3 credits. Introduction to basic concepts and models for the study of English phonology, morphology, syntax, and lexis. 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 of instructor. D

ENGL 3306 Intermediate 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

ENGL 3311 Writing and Research about Literature 3 credits. Writing-intensive course with continued emphasis on close reading. Fosters independent work with criticism. Students first learn to identify current scholarly conversations on issues relevant to the course. Then, in longer essays, they position their own arguments in the context of these discussions. PREREQ: 60 credits including ENGL 2211. F, S

ENGL 3321 Genre Studies in Drama 3 credits. Comparative study of selected plays through recognition of generic forms and conventions, their origins and continuing evolution, and their theoretical basis. R2

ENGL 3322 Genre Studies in Poetry 3 credits. Comparative study of selected poems through recognition of generic forms and conventions, their origins and continuing evolution, and their theoretical basis. Emphasis on lyric poetry. R2

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

ENGL 3327 Special Topics in Genre 3 credits. Focused study of a generic tradition modified by thematic or historical contexts, with emphasis on topics not regularly treated in ENGL 3321-3324. D

ENGL 3328 Gender in Literature 3 credits. Considers the role of gender in literature, including issues of authorship, reader communities, and literary representations of women and men. R2

ENGL 3341 Bible as Literature 3 credits. Study of various types of literature found in the Bible, with a view of attaining greater knowledge of and appreciation for this aspect of the literary heritage. R2

ENGL 3348 Independent Problems 1-3 credits. Consultation course for upperclassmen interested in problems in language and literature not adequately covered by regular offerings. PREREQ: Permission of the Department. D

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

ENGL 3356 Ethnicity in Literature 3 credits. Study of the construction of ethnicity in literature, with attention to specific concerns relevant to one or more ethnic groups. R2

ENGL 3367 Language in the United States 3 credits. A survey of the languages of the United States (American Indian languages, immigrant languages, and ethnic and regional varieties of English) along with the social and political aspects of American language use. 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 3307, ENGL 3308, or ENGL 3311. R2

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

ENGL 4409 Literary Magazine Production 3 credits. Hands-on experience in literary magazine production: editing, proofreading, and design. Strategies for screening and selecting stories, poems, and reviews. Consideration of the role of the small press in national literary culture. PREREQ: ENGL 2206.

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

ENGL 4431 Teaching and Writing Projects: Special Topics 3 credits. 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 ENGL 2281, plus 3 additional hours of English. F

ENGL 4440 Philosophy and Literature 3 credits. Reflections on the relation between poetic and speculative discourse. Topics include forms of consciousness, temporality and narrative, metaphysics of genre. Cross-listed as PHIL 4440. R2

ENGL 4441 History of Literary Criticism 3 credits. Teaches about major theorists and debates that have influenced the interpretation of literature. Students read key theoretical texts. Course may use a thematic or chronological approach. D

ENGL 4453 American Indian Literature 3 credits. Considers literary works by and about North American native people, especially in relationship to history, genre, and culture, including oral traditions. 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

ENGL 4456 Comparative Literature 3 credits. The analysis of ideas, problems, and techniques common to important writers of various national literatures R3

ENGL 4461 Studies in Classical Literature 3 credits. Study of the major literature of the classical Greek and Roman periods, especially in relationship to its cultural backgrounds. R3

ENGL 4462 Studies in Medieval Literature 3 credits. Study of the major literature of the Middle Ages and its background, with emphasis upon the development of English literature. R2

ENGL 4463 Studies in Renaissance Literature 3 credits. Study of the major literature of the Renaissance and its background, with emphasis upon the development of English literature. R2

ENGL 4464 Studies in Seventeenth-Century Literature 3 credits. Study of the major literature of the seventeenth century and its background, with emphasis upon the development of English or American or other literature of the period. R2

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

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

ENGL 4467 Studies in Late Nineteenth-Century Literature 3 credits. Study of the major literature of the late nineteenth century and its background, with emphasis upon the development of English, American or other literature of the period. R2

ENGL 4468 Studies in Early Twentieth-Century Literature 3 credits. Study of the

major literature of the early twentieth century and its background, with emphasis upon English, American or other literature of the period. R2

ENGL 4469 Studies in Contemporary Literature 3 credits. Study of recent major literature and its background, with emphasis upon English or 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 3 credits. Intensive study of selected works by Shakespeare, with special emphasis placed upon performance issues. Includes field trip to attend live dramatic productions of Shakespearian plays. D

ENGL 4480 Varieties of American English 3 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 sociopolitical changes and developments in the English language. PREREQ: ENGL 2280 or ENGL 2281. R2

ENGL 4488 Introduction to Sociolinguistics 3 credits. Study of the patterned covariation of language and society, social dialects and social styles in language; problems of bilingualism,

multilingualism, creoles and language uses. 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. Students demonstrate their reading and research skills in this capstone course. Within instructor's chosen theme, students develop a cumulative research project including a substantial paper and oral presentation. PREREQ: ENGL 3311 and 6 additional hours of upper-division English. F, S

ENGL 4492 Folklore and Literature 3 credits. Study of cross-influences between oral and written literatures. Emphasis may be on a written genre that imitates and draws upon oral genres, a movement or period in which oral tradition strongly influences written forms, or a particular writer who incorporates motifs and storytelling patterns from folklore. Rotating topics. May be repeated for up to 9 credits. R2

ENGL 4494 Senior Seminar in Creative Writing 3 credits. Capstone course suitable for students working in any creative writing genre. Each student will compile in advance a reading list and project outline in consultation with instructor. During course, the student will complete a substantial creative writing project and give a presentation. Instructor will also assign class-wide readings, some from each student's list. Workshop-based. PREREQ: ENGL 4406 and permission of instructor. R1 S

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

Bachelor of Arts in Philosophy

Students who wish to major in philosophy should select either the traditional major or the major with a Pre-law Emphasis. In addition to University General Education equirements 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: Gree	k
	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 Philosopl	ny3 cr
POLS 3313	Introduction	
	to Political Philosophy	3 cr
POLS 4418	Topics in Political Theory	3 cr
POLS 4420	Contemporary Political Theo	ry3 cr

Plus one course from the following:

POLS 2249	Introduction to Criminal Lav	w3 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 semesterhours of philosophy including
PHIL 4450 Ethical Theory 3 of

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 Philos	sophy3 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 philoso- phy including two of:

Plus one of the following:			
PHIL 4425	Existentialism	3 cr	
	and the Old Testament	3 cr	
PHIL 2225	Philosophy		
	in Religion	3 cr	
PHIL 2220	Philosophical Issues		
	Asian Philosophy	3 cr	
PHIL 2210	Introduction to		

rius 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

PHIL2210 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

PHIL2225 Philosophy and the Old Testament 3 credits. Discussion of Hebrew Scripture, with emphasis on the narrative material in the Pentateuch. Commentaries drawn from classical and contemporary philosophy, theology, and literary theory. D

PHIL 2230 Medical Ethics 3 credits. An examination of ethical issues that arise in medical practice and biotechnology. Topics may include informed consent, withdrawing life sustaining treatment, abortion, assisted suicide, and the allocation of scarce resources. F, S, Su

PHIL 3305 History of Philosophy: Greek Reason and Christian Faith 3 credits. Philosophical readings from the pre-Socratics to St. Thomas Aquinas. Topics include the theory of essence, human nature and happiness, the problem of evil, the relation of reason and faith. R2

PHIL 3315 History of Philosophy: Early Modern Philosophy 3 credits. Readings in philosophy from Descartes to Kant. Rationalist and empiricist answers to questions concerning the source and scope of human knowledge. R2

PHIL 3325 History of Philosophy: Modern Philosophical Movements 3 credits. Readings in philosophy of the 19th and 20th centuries. Organized to illuminate the development of particular schools of thought, including existentialism, pragmatism, phenomenology, analytic philosophy, and Marxism. Emphasis varies. D

PHIL 3353 Philosophy of Law 3 credits. An investigation of historical and contemporary theoretical approaches to law and a variety of philosophical problems that arise with respect to the law. Topics include natural law theory, legal positivism, legal realism, Constitutional interpretation, theory of punishment, and civil liberties. R2

PHIL 3355 Political and Social Philosophy 3 credits. Questions concerning social justice as discussed by Plato, Aristotle, Hobbes, Locke, Hegel, Marx and others. D

PHIL 4400 Philosophy of Art 3 credits. Study of philosophic problems encountered in perceiving, interpreting, and evaluating works of art. Topics include the nature of a work of art, aesthetic response, expression, symbol; the nature and role of representation; the nature of interpretive and evaluative claims. R2

PHIL4410 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 survey of the philosophical issues related to science. Topics include the nature of scientific theories, science and non-science, scientific explanation and causation, realism and anti-realism in science, and scientific revolutions. R2

PHIL 4435 Metaphysics 3 credits. A study of some of the main questions of metaphysics, including such topics as being, substance, uni-

versals, 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 topics in epistemology such as the nature of knowledge, the problem of skepticism, and the nature of justification. Various claims about the sources of knowledge, and accounts of *a priori* knowledge and truth will also be considered. Readings from classical and contemporary sources. R2

PHIL 4470 Symbolic Logic and Foundations of Mathematics 3 credits. A comprehensive study of formal methods of determining validity and of systems of symbolic logic, with attention to the philosophy of logic and the relationship between logic and mathematics. D

PHIL 4480 Philosophy Tutorial 2 credits. Consultation course for seniors interested in a philosophical problem connected with their major field. Will consist of independent reading, conferences, and the preparation of a term paper. May be repeated for up to 6 credits. F, S

PHIL 4490 Philosophy Seminar 1-3 credits. Advanced reading and discussion on selected topics in philosophy. May be repeated with permission of the department. D

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 2212Introduction to Folklore/Oral Tradition

3 cr

Choose 15 credits from:

CHOOSE IC CIC	***************************************	
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 cı
ANTH 4452	American Indian Verbal Arts	3 cr
ANTH 4472	Native American Arts	3 c1
ANTH/ENGL 449	0 Topics in Folklore	3 cr
ENGL 4492	Folklore and Literature	3 cr

Department of History

Chair and Associate Professor: Marsh Professors: A. Christelow, S. Christelow, Hale, Hatzenbuehler, Owens, Woodworth-Nev

Associate Professor: Kuhlman Assistant Professor: Hinman, Reedy-Maschner

Senior Lecturers: Maharas, Reinke, Stamm

Adjunct Faculty: Emfield, James, LeCorbeiller, Leibert, Storms 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.
- Understand how places are connected (for example, by economic, political, and cultural links) and analyze how these interconnections have changed over particular periods.
- 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 m	ay use one of the above cours	es to
satisfy Goal 10A of	the General Education requirem	ents.

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

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	n3 cr

Category V: Upper division world, comparative, and non-U.S. history (6 credits)

11011 01011	(0 01 0 01 0 01	,	
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	13	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 La	ıb3	cr
GEOL/HIST/POL	S 4471		
	Historical Geography of Idah	o 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	cla	!SS

(4461, 4462, or 4463) to fulfill the requirements requires the permission of the History Chair.

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 cred-

its. 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. Fulfills General Education Goal 9. 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 NorthAmerican 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

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

HIST 3309 Modern United States 3 credits.

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 precontact 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 ex-

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

Research Curator and Earth Sciences Division Head: Tapanila

Research Curator Ray J. Davis Herbarium and Life Science Division Head: Williams Affiliate Research Curator and Director, Crabtree Experimental Archaeology Lab: Holmer

Education Resources Coordinator: Thorne-Ferrel

Anthropology Collections Manager: Tews

Earth Sciences Collections Manager: Thompson

Life Sciences and Ray J. Davis Herbarium Collections Manager: Bala Earl R. Swanson Archaeological

Repository Manager:
Commendador-Dudgeon

Emeriti: Akersten, Holte, Trost sciences, History, and other affiliated Idaho State University departments.

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	d 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

Economics*		
ANTH 4402	Ecological Anthropology	3 cr
	Anthropology	3 cr
ANTH 2250	Introduction to Sociocultural	

ECON 3334	International Economics	3 cr
ECON 4433	Economic Development	3 cr
ECON 4472	Comparative Economic	
	Systems	3 cr
*D / ECON 2	201 LECON 2202	

*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	y3 cr
HIST 4474	Islam and Nationalism	
	in the Modern World	3 cr
HIST 4478	Imperialism and Progressivism	13 cr

Political Science

1 Ottilletti	Jeience	
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
and the second		

*in consultation with your advisor and when the topic relates to political and economic development.

Sociology

SOC 3335 Population and Environment 3 cr

B. Language, Literature, and Culture

This area of concentration is for those wishing to study the language, literature, and culture of societies other than the United States. It is limited to concentrations in French, German, Japanese, Russian, and Spanish. No more than twelve (12) of the required eighteen (18) credits may be taken from the offerings of a single department.

French

CMLT 2207	Contemporary European Culture 3 cr		
FREN 3301,3302	French Conversation and		
	Composition I and II	6 cr	
FREN 3341,3342	Survey of French Literatur	vey 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
* /· 1·	1	

^{* (}in consultation with your advisor and when the topic relates to this area of concentration)

German

CMLT 2207	Contemporary European Culture	e3 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		
GERM 4450	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)

Innanoso

Jupunese		
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
ate of the second		

^{* (}in consultation with your advisor and when the topic relates to this area of concentration)

Russian

CMLT 2207	Contemporary European Cultur	re3 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 c	
RUSS 3301,3302	Russian Conversation		
	and Composition I and I	6 cr	
RUSS 4470	Readings in Russian	2 cr	
*(in consultation with your advisor and when the topic			
relates to this area	a of concentration)		

Spanish

1		
CMLT 2207	Contemporary European Cultur	e3 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 v	vith vour advisor and when the t	opic

C. The United States and World Affairs

relates to this area of concentration)

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

ECON 3334	International Economics	3 cr
History		
HIST 3309	Modern United States	3 cr
HIST 4429	Foreign Relations Since 19	0003 cr

Political Science

Economics

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
	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

1 min opon	'8 <i>y</i>	
ANTH 4423	Anthropology of	
	International Health	3 cr

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ĸ	us	111	0	20

FIN 4475	International Corporate Final	nce 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

Studies in National Literature3 cr

English

ENGL 4455/CMLT 4415

ENGL 4456	Comparative Literature	3 cr
History		
HIST 2223	Medieval Europe	3 cr
HIST 4435	Colonial Frontiers in America	a
	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	ı3 cr
HIST 4490	Cartography: History and Design	ı 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
*(in consultatio	n with your advisor	and when the topic
relates to Intern	ational Studies)	

Sociology

Sociology of Religion

Minor in International **Studies**

General Requirements

- 1. Eight (8) credits in a foreign language or the equivalent demonstrated competency.
- 2. Economics 2201 (3 credits).

Minor Requirements

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

Required Courses:

3 cr
1 cr
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

Director and Professor: Park Professor: Sieber Associate Professors: Hunt, Tarp Senior Lecturers: Heath, Stewart Assistant Lecturers: Dillon, Fukuoka, McCurry, Robredo Adjunct Faculty: Johnsen, Nagata, Stringfellow-Brookman, Tatarova 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, and Spanish, and introductory and intermediate courses in Arabic, Chinese, Latin, Russian, and Shoshoni provide an important component of the student's general education in the Humanities and complement a wide variety of majors in other disciplines, increasing the ability to compete for jobs where a knowledge of one or more foreign languages is desired. The Department of Languages and Literatures also teaches courses in comparative literature, literature in translation, film, and cultural studies designed for a broad audience, in particular 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

- 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.
- 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 and minors listed below must be completed with a minimum grade 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.

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

Major in French

J		
CMLT 2207	Contemporary European	
	Culture	3 cr
CMLT 3360	Literary Theory	3 cr
FREN 2201-2202	Intermediate French	8 cr
	(or equivalent high school	
	courses or experience)	
FREN 3301-3302	French Conversation and	
	Composition	6 cr
FREN 3341-3342	Survey of French Literature	
	and Civilization	6 cr
	AND	
Upper-division FR	EN, CMLT, or LANG course	S
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	8 cr
	(or equivalent high school	
	courses or experience)	
GERM 3301-3302	German Conversation and	
	Composition	6 cr
GERM 3341-3342	Survey of German Lite	rature
	and Civilization	6 cr
	AND	
Upper-division GE	ERM, CMLT, or LANG cours	ses
other than LANG	4437, four of which must be	
taught in German		18 cr

Major in Spanish

1,100,01	- Pullish	
CMLT 2207	Contemporary European	
	Culture	3 cr
	OR	
CMLT 2208	Cultures of the Spanish-	
	speaking World	3 cr
CMLT 3360	Literary Theory	3 cr
SPAN 2201-2202	Intermediate Spanish	8 cr
	(or equivalent high school	
	courses or experience)	
SPAN 3301-3302	Spanish Conversation and	
	Composition	6 cr
SPAN 3341-3342	Survey of Spanish and	
	Latin American Literature	
	and Civilization	6 cr
	AND	
Upper-division SPAN, CMLT, or LANG courses		

other than LANG 4437, four of which must be taught in Spanish

3 cr

Major in French, German or Spanish for Business and **Professions**

Requirements:

1) One of the following courses (3 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 follow	ing courses in the cho	sen

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)FREN4465	GERM 4460 or SPAT	N4460

- 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

Minors

Minors in French, German, Japanese, 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 knowledge of one or more foreign languages is desired. The Department also teaches courses in English on comparative literature, linguistics, 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. For each of the minors detailed below, a Goal 10A course must also be taken.

Two years (or equivalent) of a foreign language are prerequisites to all upperdivision courses in French, German, Japanese, Russian and Spanish. However, the department reserves the right to place students at a level commensurate with their knowledge of a specific language.

Minor in French

111101		
A Goal 10A course	2	3 cr
CMLT 2207	Contemporary European	
	Cultures	3 cr
FREN 2201-2202	Intermediate French	8 cr
	(or equivalent high school	
	courses or experience)	
FREN 3301-3302	French Conversation and	
	Composition	6 cr
	AND	
Upper-division FREN, CMLT, or LANG courses		

other than LANG 4437, one of which must be taught

Minor in German

A Goal 10A course	;	3 cr
CMLT 2207	Contemporary European	
	Cultures	3 cr
GERM 2201-2202	Intermediate German	8 cr
	(or equivalent high school	
	courses or experience)	
GERM 3301-3302	German Conversation and	
	Composition	6 cr
	AND	
Upper-division GE	RM, CMLT, or LANG cours	es
other than I ANG	1427 one of which must be t	ought

other than LANG 4437, one of which must be taught

Minor in Japanese

A Goal 10A cours	e	3 cı
CMLT 2209	Cultures of Asia	3 c1
JAPN 2201-2202	Intermediate Japanese	8 c1
	(or equivalent high school	
	courses or experience)	
JAPN 3301-3302	Japanese Conversation and	
	Composition	6 cı
	AND	
Upper-division JA	PN, CMLT, or LANG course	S
other than LANG	4437, one of which must be t	aught
in Japanese		6 ct

Minor in Spanish

A Goal 10A course	e	3 cr
CMLT 2207	Contemporary European	
	Cultures	3 cr
SPAN 2201-2202	Intermediate Spanish	8 cr
	(or equivalent high school	
	courses or experience)	
SPAN 3301-3302	Spanish Conversation and	
	Composition	6 cr
	AND	
Upper-division SP	AN, CMLT, or LANG course	es
other than LANG	4437, one of which must be t	aught

Associate of Arts Degree

in Spanish

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

ANTH/ENGL/LAN	IG 1107 The Nature of	Language 3 cr	
ENGL 1110	Introduction to Lite	rature 3 cr	
ENGL 2211	Introduction to Lite	rary	
	Analysis	3 cr	
All of the General Education Goals (including 10A			
and 10B, using the courses below) 37-53* cr			

Contemporary European

Choose one course (for Goal 10A): Culture

CMLT 2208	Cultures of the Spanish-	
	Speaking World	3 cr
CMLT 2209	Cultures of Asia	3 cr
Choose one se	et (for Goal 10B):	
FREN 1101-1102	Elementary French	8 cr
FREN 2201-2202	Intermediate French	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

In addition:

CMLT 2207

Electives to bring total to 64 cr	variable
	TOTAL: 64 cr
* The number of credits required for	the General Edu-
cation requirements varies dependin	g 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 Education Requirements. D

ARBC 1102 Elementary Arabic II 4 credits. Continuation of ARBC 1101 Practice in the language laboratory is required. PREREQ: ARBC 1101 or equivalent. 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 language. 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. PREREQ: ARBC 2201 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. Development of intermediate-level communicative competencies in speaking, listening, reading, and writing, and of cultural awareness through exposure to customs, traditions, places, and peoples. Graded S/U. D

Chinese Courses

CHNS 1101 Elementary Chinese I 4 credits.

Basic communication skills and grammatical structures in Chinese and introduction to the culture of Mandarin Chinese-speaking peoples.

^{*}See the detailed listings of requirements for the three minors in the College of Business section of the catalog.

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 2201 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: 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. PRE-REQ: 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: FREN 2201 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. PRE-REQ: 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 2201 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 I3 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 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. 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

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. With LATN 2202, satisfies Goal 10B of the General Education Requirements. PREREQ: LATN 1102 or equivalent. D

LATN 2202 Intermediate Latin II 4 credits. Review and further study of Latin grammar. Readings from various authors. Study of one book of Virgil's Aeneid. PREREQ: LATN 2201 or equivalent. 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 2201 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 13 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 II3 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/ILD

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. 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 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. PREREQ: SPAN 2201 or equivalent. 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 2210 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. PREREQ: SPAN 1102 or equivalent. D

SPAN 2211 Spanish for Health Care II 3 credits. A course designed to teach health care professionals how to communicate proficiently with Spanish-speaking patients. Integrates thematically related vocabulary, grammar, and culture with an emphasis on occupational communication. PREREQ: SPAN 2210 or equivalent. 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. AF

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 sociocultural 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 '983 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	3 cr
	(PREREQ: MGT 3312)	
COMM 4441	Interpersonal Communication	3 cr
POLS 4451	Organizational Theory	
	and Bureaucratic Structure	3 cr
	(PREREQ: POLS 4405	
	recommended)	
COMM 4452	Conflict Management	3 cr
Cultural Und	lerstanding	
SOC 2248	Social Diversity	3 cr
MGT 4465	International Business	3 cr
	(PREREQ: ECON 2202, FIN 3	317)
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

Chair and Associate Professor: Terry Professors: Frazier, Jull Associate Professors: Beachboard, Kim Assistant Professor: Hallaq 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.
- Skills in television, journalism, photography, graphic design, advertising, and public relations appropriate for entry-level position.
- Sufficient general knowledge to pursue a successful career in mass communication.
- 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.

Degree Options in Mass Communication

For the Bachelor of Arts in Mass Communication, five emphases are available: Advertising, Journalism, Public Relations, Television, and Visual Communication.

Each emphasis requires an additional 15 credits from a selected **component** of specialized study outside the department. These emphases are designed to give practical as well as theoretical skills in specific areas. The department also offers a Bachelor of Arts in Theatre, Film, and Video, in cooperation with the Department of Theatre and Dance in the School of Performing Arts, for students interested in a career in producing, directing, and recording live performances.

Admission to Major Status

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

- 1. Be officially admitted to Idaho State University.
- Successfully complete the following lower division courses or their equivalents:

MC 1119	Introduction to Mass Media	3 cı
MC 1121, 1121L	Reporting and Newswriting,	
	and Lab	4 cı
MC 2215	Graphic Design	3 cı
	OR (depending on emphasis)	,
MC 2230, 2230L	Introduction to	
	Photography, and Lab	3 cı
Goals 1, 2, 6, 11, a	and 12 of the General Education	n
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 only after completing the requirements for admission to major status. This application is usually done in the sophomore year. Majors must complete MATH 1108 Intermediate Algebra and MATH 1153 Introduction to Statistics or their equivalents. Majors must also earn a grade of C- or better in all Mass Communication courses.

All students must be advised each semester before graduation.

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

Bachelor of Arts in Mass Communication

Select one of the following emphases:

Emphasis in Advertising

Required Mass Communication Courses

MC 1119	Introduction to Mass Media	3 cr
MC 1121,1121L	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	Advertising Media Planning	3 cr
MC 4455	Advertising Campaigns	3 cr

Additional Required Mass Communication Courses

Select TWO of the following:

MC 2230,2230L	Introduction to Photography,	
	and Lab	3 cr
MC 2241	Introduction to Public Relations	3 cr
MC 2260	Photo and Graphic Design	3 cr
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 c
	TOTAL: 52 c

Emphasis in Journalism

Required Courses:

required Cot	11 5051	
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	3 cr
MC 2270	Journalism History	3 cr
MC 3321	Reporting of Public Affairs	3 cr
MC 3325	Editing for Print Media	4 cr

MC 4440 MC 4452	Media Law and Ethics Mass Communication	3 cr	Empha	sis in		Empha	sis in Visual	[
	and Society	3 cr	_	Relations		_	unication	
	the following courses:	_						
MC 2215	Graphic Design	3 cr		ss Communication Cou	rses	Required Co	urses:	
MC 2260 MC 3305,3305L	Photo and Graphic Design Photo Communication,	3 cr	MC 1119	Introduction to Mass Media	3 cr	MC 1119	Introduction to Mass Medi	
WIC 3303,3303L	and Lab	3 cr	MC 1121,1121L	1 0	4	MC 1121,1121L	Reporting and Newswriting	
MC 3315	Intermediate Graphic Design		MC 2215	and Lab Graphic Design	4 cr 3 cr	MC 2215	and Lab Graphic Design	4 cr 3 cr
MC 3327	Magazine Article Writing	3 cr	MC 2230,2230L	Introduction to Photography		MC 2230,2230L	Introduction to Photograph	
MC 4445	Editorial Writing	3 cr	2230,22302	and Lab	3 cr	1110 223 0,223 02	and Lab	3 cr
In Addition:			MC 4452	Mass Communication		MC 2260	Photo and Graphic Design	3 cr
Components, liste	d below	15 cr		and Society	3 cr	MC 4440	Media Law and Ethics	3 cr
•	TOTAL:	44 cr	Public Relati	ons Core Courses		MC 4441	OR Intellectual Property	
The Denartmen	nt also strongly recomme	nds	MC 2241	Introduction to Public Relation	ıs 3 cr	MC 4441	and Commercial Speech	3 cr
MC 4494	0.	-3 cr	MC 3343	Public Relations Principles		MC 4452	Mass Communication	
	г		MG 22/7	and Concepts	3 cr		and Society	3 cr
Empha	cic in Modio		MC 3367 MC 4480	Advertising Media Planning Public Relations Programs	3 cr 3 cr	Graphics Tra	ick students also must	take.
сшрпа	sis in Media		MC 4495	Applied Research Methods		MC 3315	Intermediate Graphic Design	
Studies						MC 4415	Advanced Issues	D
Studies				equired Mass Commu			in Graphic Design	3 cr
Required Cor	urses•			esSelect THREE of t	he	ART/MC 4418	Art of the Book	3 cr
ENGL 3307	Professional and		following:			MC 4470	Communication	3 cr
LINGE 3307	Technical Writing	3 cr	MC 2260	Photo and Graphic Design	3 cr	MC 4425	through Web Design Senior Graphics Portfolio	1 cr
	OR		MC 3300 MC 3315	Television Production3 cr Intermediate Graphic Design	3 or		-	
ENGL 3308	Business Communications	3 cr	MC 3350	New Media	3 cr		Track students also	must
MC 1119	Introduction to Mass Media	3 cr	MC 3355	Advertising Copywriting	3 cr	take:		
MC 1121,1121L	Reporting and Newswriting, and Lab	4 cr	MC 3375	Special Projects in Advertising	g 3 cr	MC 2210	History and Appreciation	
MC 2210	History and Appreciation of	4 (1	MC 4440	Media Law and Ethics	3 cr	MC 2205	of Photography	3 cr
2210	Photography	3 cr	240.4441	OR		MC 3305 MC 4405	Photo Communication Color Printing	3 cr 3 cr
MC 2215	Graphic Design	3 cr	MC 4441	Intellectual Property and Commercial Speech	3 cr	1110 1100	OR	5 01
MC 2290	American Broadcasting	3 cr	MC 4470	Communication	3 01	MC 4410	Advanced Photography	3 cr
MC 2200	OR Talaxisian Braduation	3 cr		Through Web Design	3 cr	MC 4412	Digital Imaging	3 cr
MC 3300 MC 4415	Television Production Advanced Graphic Design	3 cr	MC 4494	Media Internship	3 cr	MC 4426	Senior Photography Portfo	lio l cr
MC 3321	Reporting of Public Affairs	3 cr	In Addition:			In Addition:		
MC 3350	New Media	3 cr	Components, liste	ed below	15 cr	Components, liste	ed below	15 cr
MC 4440	Media Law and Ethics	3 cr	, , , , , , , , , , , , , , , , , , ,	TOTAL:			TOTAL	.: 50 cr
MC 4452	Mass Communication	2 000				The Departme	ent also strongly recomm	ends:
COMM 2201	and Society Business and Professional	3 cr	Empha	cic in		MC 4494	Media Internship	1-3 cr
COMM 2201	Speaking	3 cr	Ешрпа	.515 111			•	
IN ADDITION:	Mass Communication		Televisi	ion		Compo	nents	
	electives	3 cr				Compo	псись	
Select one cor	urse from each of the	two	Required Co	urses:		Students mus	st take 15 credits from	ONE
following blo			MC 1119	Introduction to Mass Media	3 cr		ing five component a	
0			MC 1121,1121L	Reporting and Newswriting,			e following conditions	
Block 1			MC 2201	and Lab	4 cr		ne of the 15 credits mu	
MKTG 3325 MKTG 4428	Basic Marketing Managemer		MC 2201 MC 2230,2230L	Writing for the Camera Introduction to Photography	2 cr	upper divis		151 00
COMM 2208	Marketing Communications Group Communication	3 cr	WIC 2230,2230L	and Lab	3 cr	* *		
COMM 3355	Nonverbal Communication		MC 2260	Photo and Graphic Design	3 cr		the courses include	
COMM 4441	Interpersonal Communication	ı 3 cr	MC 2290	American Broadcasting	3 cr	the compo	nent may also be use	ed to
COMM 4452	Conflict Management	3 cr	MC 3300	Television Production	3 cr	Requireme	of the General Educ	anon
COMM 4453	Organizational	2 000	MC 3306 MC 4435	Non-linear Editing Television News	3 cr 3 cr	Requireme	III.S.	
	Communication	3 cr	MC 4440	Media Law and Ethics	3 cr	The faculty	advisor for each student	must
Block 2				OR			e courses selected to sa	atisfy
COMM 4436	Rhetorical Criticism	3 cr	MC 4441	Intellectual Property		the compor	ient.	
COMM 4437	Rhetorical Theory	3 cr	MG 4450	and Commercial Speech	3 cr	4. A minor o	or a second major ma	v be
COMM 4442	American Rhetoric and Public Address	3 cr	MC 4450 MC 4452	Television Workshop Mass Communication	3 cr		for the entire compo	
COMM 4447	Rhetoric of Hitler and	3 01	1110 1102	and Society	3 cr		nt if approved by the stud	
	Churchill	3 cr	MC 4460	Corporate Video Production		faculty adv	isor.	
COMM 4451	Recent Rhetorical Issues	3 cr	Plus TWO of	f the following courses		,		
	TOTAL: 45 or	46 cr	MC 3321	Reporting of Public Affairs		Component 1	1—Business and	
Recommende	ed:		MC 3350	New Media	3 cr	Economics		
MGT 3312	Individual and Organizationa		MC 3360	Film-Style Production	3 cr	Business		
	Behavior	3 cr	MC 4451	Television Studio Directing	3 cr	Economics		
			In Addition:			Marketing		
			Components, liste	ed below	15 cr	Management		
			. ,	TOTAL:		_		
			The Denartme	nt also strongly recomme	nds:	•	2—World Affairs	
			MC 4494	O.	-3 cr	GEOL 1115		

History Political Science

Component 3—Social Sciences

American Studies Anthropology Communication and Rhetorical Studies Psychology Sociology

Component 4—Arts and Humanities-

Communication and Rhetorical Studies English Music Philosophy

Theatre

Component 5—Natural Sciences

Biological Sciences Chemistry Geology Mathematics Physics

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)

Tresmmun 1eu	ii (32 Cieuus)	
MC 1119	Introduction to Mass Media	3 cr
MC 2260	Photo and Graphic Design	3 cr
THEA 1111	Stagecraft	3 cr
THEA 2251	Beginning Acting	3 cr
General Education	Goal Courses	15 cr
Electives*		5 cr
Sophomore Ye	ear (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 (3	2 credits)	
MC 3306	Non-linear Editing	3 cr
MC 3360	Film Style Production	3 cr
THEA 3311	Introduction to Scene Desig OR	n 3 cr
THEA 4403	Stage Costume Design	3 cr
THEA 4455	Directing	3 cr
General Education	Goal Courses	12 cr
Electives		8 cr
Senior Year (3	2 credits)	
MC 4451	Television Studio Directing	3 cr
General Education		10 cr
Electives*		16 cr
Plus one of the fol	lowing:	
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
*Recommend	ed Electives	

Choose electives each semester from the list below:

Visual Anthropology	3 cr
Creative Process	3 cr
Introduction to	
Computer Systems	3 cr
Introduction to	
International Film Studies	3 cr
World Film Studies	3 cr
Topics in World Film Studies	3 cr
Art of The Film I	3 cr
Art of the Film II	3 cr
Graphic Design	3 cr
Introduction to Photography,	
and Lab	3 cr
American Broadcasting	3 cr
Intellectual Property	
and Commercial Speech	3 cr
Television Workshop	3 cr
Voice and Diction 2 cr*Elec	tives
3391,3392	
Theatre Production**	1 cr
Stage Dialects	2 cr
Practicum Theatre Arts I, II1	-3 cr
Problems in Acting	3 cr
Advanced	
Costume Construction	3 cr
Advanced Acting Styles	3 cr
Advanced Scene Design	3 cr
Advanced Stage Direction	3 cr
ction courses may be taken f	or 8
	Creative Process Introduction to Computer Systems Introduction to International Film Studies World Film Studies World Film Studies Topics in World Film Studies Art of The Film I Art of the Film II Graphic Design Introduction to Photography, and Lab American Broadcasting Intellectual Property and Commercial Speech Television Workshop Voice and Diction 2 cr*Elect 3391,3392 Theatre Production** Stage Dialects Practicum Theatre Arts I, III- Problems in Acting Advanced Costume Construction Advanced Acting Styles Advanced Scene Design Advanced Stage Direction ction courses may be taken f

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

Mass Communication Courses

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

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

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

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

MC1120L 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 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. 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 3 credits. Introduction to the fundamentals of digital camera use, and important techniques such as lighting, and composition. The use of photography as an artistic and expressive medium is explored through assignments. Class consists of lectures, demonstrations, and group critiques. Students must have own camera and paper. COREQ: MC 2230L. F, S, Su

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

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

MC 2260 Photo and Graphic Design 3 credits.

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

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

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

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

MC3305 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 2305L. F

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

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

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

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

MC 3321L Reporting of Public Affairs 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. COREO: 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: 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, MC 2200, and MC 2215, or permission of instructor with demonstrated professional experience. F

MC 3360 Film-Style Production 3 credits. Non-news film and video production. Focuses on creative aspects of making films and videos: sound, lighting, composition, editing, special effects, animation, etc. PREREQ: MC 3300 or permission of instructor with demonstrated professional experience. D

MC 3367 Advertising Media Planning 3 credits. Selecting and evaluating 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 3 credits. A digital photography class teaching practical applications of color theory in printing using photographic digital printers on a variety of materials. Weekly shooting and printing assignments required. MC 3305 is strongly recommended. PREREQ: MC 2230 and MC 2260 or permission of instructor. COREQ: MC 4405L. S

MC 4405L Color Printing Laboratory 0 credits. Assignments to apply principles from MC 4405. S

MC4410Advanced 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 3 credits. Practical experience producing television programs for local airing. May be repeated for up to 6 credits. PREREQ: MC 2201 and 3300 or permission of instructor with demonstrated professional experience. S

MC 4451 Television Studio Directing 3 credits. Live in-studio directing of news, music and dramatic productions. Focuses on the aesthetic, organizational and leadership elements of a director. Focus on camera operation, technical directing and lighting. May not be taken concurrently with MC 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. S

MC 4460 Corporate Video Production 3 credits. Producing for corporate, educational, home video, documentary and other nonfiction markets. Advanced production techniques. Major project required. MC 3300 and MC 3306 or permission of instructor with demonstrated professional experience. D

MC 4470 Communication Through Web Design 3 credits. Theory, ideology and practical application of interactive document design utilizing several different software applications. Emphasis placed on communication. Also taught within a practical and aesthetic context, ethics, current practices, purposes, styles, genres and directions in authoring for the world wide web. PREREQMC 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 Military Science (Army ROTC)

Chair: Dewalt Adjunct Faculty: Bunde Affiliate Faculty: Hansen, Larson, Schwindt, 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 George Hansen, 223 Reed Gym, (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 28-day summer camp or by completing Military Basic Training. Veterans and Reserve/National Guard members may receive credit for the Basic Course.

Students in the Basic Course who are contemplating taking the Advanced Course are highly encouraged to take either the Military Style Fitness class or the Ranger Challenge fitness class.

Advanced Course

In addition to the requirements of the Basic Course, the Advanced Course requires two additional years of military science and a 29-day training course, which provides practical application of instruction previously given. Admission to the Advanced Course is by permission of the Chair of the Department of Military Science.

Admission Requirements

Advanced Course cadets must:

- Have satisfied one of the following requirements: Successful completion of the Basic Course, the 28-day summer Leader Training Course (LTC) or Basic Training. In addition, all students must have completed a minimum of 54 credits toward their chosen career field.
- 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.
- 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.
- Devote a minimum of eight hours a week to the military training prescribed by the Secretary of the Army.
- Contract into the Army Reserve ROTC Control Group. This enlistment does not involve additional training or duty but is to insure compliance with the terms of the contract signed by the student.
- 7. Agree to accept a commission if tendered.
- 8. Serve as a commissioned officer in the active Army, the Army Reserve, or the National Guard. Guaranteed Reserve Forces Duty (GRFD) assignments are available for those who do not want to compete for the active duty assignments. The GRFD assignment allows officers to serve in the Reserves or National Guard with an Army Commission.
- Complete the requirements for Professional Military Education (PME). The
 PME system is designed to articulate
 skills and knowledge that are required
 of all U.S. Army Officers. The professional military education component
 consists of two parts, a baccalaureate
 degree in an academic field and a
 military history course.
- 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).

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 F	itness,
	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 cı
MSL 3310	ROTC Physical Fitness*	1 cı
MSL 3320	Leadership in	
	U S Military History	3 cr
MSL 4401,4401L	Developing Adaptive Leaders,	
	and Lab	4 cı
MSL 4402, 4402L	Leadership in a Complex World	i,
	and Lab	4 cr

Optional:

MSL 1104	Ranger Challenge	1 cr
MSL 3380	ROTC Nurse Summer Training	g 3 cr
MSL 3390	Leader Development	
	and Assessment Course***	6 cr
MSL 4492	Military Science Internship	6 cr
** Required	if student is on scholarship ar	ıd/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	l4 cr
MSL 4492	Military Science Internship	
	(SMP)**	6 cr
	TOTAL: 3	5 cr

^{*}This is a 1-credit course, taken once each semester, for a total of 4 credits

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, problemsolving, 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

^{**}Optional, if student qualifies

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 MLS 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

MSL3302 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

School of **Performing** Arts

Thom Hasenpflug, D.M.A., Director

The School of Performing Arts is comprised of the music, theatre, and dance disciplines. The goal of the School is to provide the highest quality education and performance activity to those whom it serves. We are located in the Stephens Center for the Performing Arts, as well as the Fine Arts building (most music courses), and the Red Hill Building (most dance courses).

Department of Music

Chair and Professor: Hasenpflug Professors: Anderson, Bond, Brooks, Lane

Associate Professors: 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, Idaho State Chorale, Jazz Bands, Chamber Choir, Opera Workshop and a variety of small woodwind, brass, percussion, string, vocal and keyboard ensembles, is open to all university students.

Accreditation

The Idaho State University Department of Music is an accredited institutional member of the National Association of Schools of Music. Its music education program is also accredited by regional and state accrediting agencies.

Goals and Objectives

The Department of Music at Idaho State University has the following goals:

- 1. To offer instruction of the highest possible quality to music students;
- 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:

- 1. Students will gain professional level performing experience in a variety of settings including large ensemble, small ensemble, and solo performance. These performance experiences will culminate in the presentation of a solo recital in the senior year.
- 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.
- 4. Students will develop ear training skills, including the abilities to hear and notate pitch, intervals, chords, and rhythms. Students will be able to hear and identify procedures and large scale structures that are used in music.
- Students, especially those in the Bachelor of Music Education degree, will gain knowledge and experience in the art of teaching music.

6. Students will gain and be able to display basic competencies on piano, including performance, sight reading, transposition, harmonization, and proper piano technique.

Admission

All prospective music majors/minors and transfer students must contact the department office prior to their first semester's registration to be assigned a departmental advisor and take diagnostic placement tests and performance auditions. Acceptance as a music major/minor is dependent upon auditions and these examinations. Examinations should be taken before or during the week preceding classwork.

Performance Auditions

These auditions will include technique demonstration and repertoire performance.

Theory Placement Exam

This exam will determine the specific semester of music theory to which a student will be assigned.

Piano Placement Exams

These tests serve to determine the specific semester and section of class piano or private instruction to which a student will be admitted. All music majors must successfully complete the department's required piano proficiency to graduate. Credits in MUSC 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

- 1. An overall accumulative grade point average of 2.0 for all University courses is required for graduation. The Music Department requires a Music GPA of 2.5 as a standard for graduation. An additional requirement is that a music major or minor must earn no less than a "C-" grade in each music course. Furthermore, at least a "C-" grade must be received to advance to another course for which the earlier course is a prerequisite, or to advance to the next level of a continuation course.
- 2. All Music majors must pass the department's Junior Standing Exam (usually taken at the end of the sophomore year) and register for, and pass, applied music lessons, a minimum of 2 semesters at the 3000 level, and 1-2 semesters at the 4000 level.

Music Department Handbook

A handbook is available online at http://www.isu.edu/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
(Voice majors are strongly encouraged to elect of	neyear
of foreign language study in each language)	
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)

Theory of Music I

3 cr

MUSC 1103

111000 1100	Theory of made	2 01
MUSC 1104	Theory of Music II	3 cr
MUSC 1107	Recital Attendance	
	(seven semesters)	0 cr
MUSC 1108	The World of Music (G	oal 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 M	usic Theory/History Electiv	e 2 or 3 cr
Other Music Elec	tives**	2 cr
* Piano proficien	cy is required for all degi	ree candi-
dates. Applied mu	sic secondary credits (MU	JSC 1118-
1119, MUSC 2218	8-2219, or MUSC 1120) m	ay be used
toward passing th	e piano proficiency. The sti	ident must
register for piano	each semester until able t	o 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
	2	
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)		
Opera Workshop		

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	mstrumental Conducting	2 CI
MUSC 4411	Instrument Literature	2 cr
MUSC 4412	Instrument Pedagogy	2 cr
Applied Music (major instrument)		
Large Ensembles (band, orchestra, choir)		
Chamber Music (instrumental ensemble)		

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

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	
MUSP 1172	ISU Women's Choir	1 cr
	OR	
MUSP 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 (m	ajor instrument or voice)	7 cr

Large Performing Ensembles	
(band, orchestra, choir)	7 cr
IN ADDITION:	
Solo or joint senior recital	
Piano proficiency*	

* 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.

Chamber Ensembles

Professional Education Requirements

1 1 010351011	ai Euucation 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

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

Dasie Masie 1	ecquii cincints	
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 (Goa	ıl 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		8 cr
Piano Proficiency*		
Large Ensembles (band, orchestra, choir)	8 cr
Chamber Ensemble	es	
Upper Division Mus	sic Theory/History Elective	2 or 3 cr
Other Music Electi	ives**	2 cr

* Piano proficiency is required for all degree candi-

dates. 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	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)	4 c

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.

MUSP 1163 Chamber Orchestra 1 credit. Study and performance of traditional and modern works for chamber orchestra. F, S

MUSP 1166 Chamber Choir 1 credit. Reading, study and performance of representative literature for chamber choir. Emphasis is placed on the individual's contribution toward the highest of choral standards. Open to all students by audition. May be repeated. F, S

MUSP 1167 Opera Workshop 1 credit. Ensemble course devoted to the study of opera from the standpoint of workshop. May be repeated. S

MUSP 1168 Instrumental Ensemble 1 credit.

Ensemble training in various instrument combinations, such as string quartet and various woodwind and brass ensembles. Section 1, Woodwind Ensemble; 2, Brass Ensemble; 3, Percussion Ensemble; 4, String Ensemble; 5, Keyboard Ensemble. May be repeated. F, S

MUSP 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

MUSP 1170 Camerata Singers/Idaho State Chorale 1 credit. Reading, study, and performance of representative choral literature. Open to community members and students. Does not meet the ensemble requirement for music majors. May be repeated. F, S

MUSP 1172 ISU Women's Choir 1 credit. Study, rehearsal and performance of traditional and non-traditional choral music for treble voices. May be repeated. F, S

MUSP 1173 Concert Choir 1 credit. Study and performance of the entire body of choral music. Includes several performances and concerts. Emphasis on attaining high musical standards and levels of choral-vocal proficiency. Open to all students by audition. May be repeated. F, S

MUSP 1177 Symphonic Band 1 credit. Rehearsal and performance of traditional and contemporary wind literature in on- and off-campus concerts. Open to all students by audition. May be repeated. F, S

MUSP 1178 Jazz Band 1 credit. Rehearsal and performance of standard and contemporary bigband literature. One or two concerts are given each semester. Open to all students by audition. May be repeated. F, S

MUSP 1179 Bengal Marching Band 1 credit. Rehearsal and performance at home football games and other events. May include travel to selected away football games. Open to all students by audition. May be repeated. F

MUSP 4463 Chamber Orchestra 1 credit. Study and performance of traditional and modern works for chamber orchestra. PREREQ: Junior level standing in applied music. F, S

MUSP4466 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

MUSP4467 Opera Workshop 1 credit. Ensemble course devoted to the study and presentation of an opera. May be repeated. PREREQ: Junior level standing in applied music. S

MUSP 4468 Instrumental Ensemble 1 credit. Ensemble training in various instrument combinations, such as string quartet and various woodwind and brass ensembles. Section 1, Woodwind Ensemble; 2, Brass Ensemble; 3, Percussion Ensemble; 4, String Ensemble; 5, Keyboard Ensemble. May be repeated. PREREQ: Junior level standing in applied music. F, S

MUSP 4469 Orchestra 1 credit. Sight reading of representative orchestral literature; orchestral routine, study, and public performance of major symphonic compositions including orchestral accompaniments. May be repeated. PREREQ: Junior level standing in applied music. F, S

MUSP 4472 ISU Women's Choir 1 credit. Study, rehearsal and performance of traditional and non-traditional choral music for treble voices. May be repeated. PREREQ: Junior level standing in applied music. F, S

MUSP 4473 Concert Choir 1 credit. Study and performance of the entire body of choral music. Includes several performances and concerts. Emphasis on attaining high musical standards

and levels of choral vocal proficiency. May be repeated. PREREQ: Junior level standing in applied music. F, S

MUSP 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

MUSP4478 Jazz Band 1 credit. Rehearsal and performance of standard and contemporary bigband literature. One or two concerts are given each semester. May be repeated. PREREQ: Junior level standing in applied music. F, S

Applied Music— Private Lessons

Private lessons are offered in band and orchestral instruments, voice, piano, percussion, and classical guitar for 1-3 credits each semester.

A special music fee is charged for enrollment in applied music. Students taking applied music lessons pay fees currently set at \$175, \$230, and \$350, depending on the level and length of the lessons. Please see the Class Schedule for the applicable fee under Applied Music Lessons.

Students desiring to major or minor in music will normally be classified as entering freshmen in the 1000 level of the series. All music majors must pass the department's Junior Standing Exam in applied music (usually taken at the end of the sophomore year) and register for, and pass, a minimum of 2 semesters at the 3000 level and 1-2 semesters at the 4000 level. Music Education students will take applied music for 1 credit per semester; Music Performance students will take applied music for 2-3 credits per semester. The courses in this section all use the MUSA prefix.

	Freshman	Sophomore	Junior	Senior
Piano	1121	2221	3321	4421
Voice	1131	2231	3331	4431
Organ	1141	2241	3341	4441
Strings	1161	2261	3361	4461
Brass	1165	2265	3365	4465
Woodwinds	1175	2275	3375	4475
Percussion	1185	2285	3385	4485

Any student registering in any of the above course numbers except those at the 4000 level will be required to register for MUSC 1107 and attend the weekly General Recital Hours/Studio Classes and evening concerts until degree requirements for recital attendance have been fulfilled. A student who does not plan to attend the required recital hour/studio classes and evening concerts should register for one of the following secondary instruction course numbers.

MUSA 1120	Piano Secondary	1 cr
MUSA 1130	Voice Secondary	1 cr
MUSA 1140	Organ Secondary	1 cr
MUSA 1160	Strings Secondary	1 cr

MUSA 1164	Brass Secondary	1 cr
MUSA 1174	Woodwinds Secondary	1 cr
MUSA 1184	Percussion Secondary	1 cr

These courses are an undergraduate classification for non-majors, for prospective majors who do not yet meet the level of proficiency expected of a major, or for majors who wish to study an additional applied music area other than their major area.

Music Courses

MUSC 1100 Introduction to Music 3 credits. A listening-oriented course with Western art music as its principal focus. Designed for the general student. No music reading ability/performance skills are assumed. Credit cannot be granted in both MUSC 1100 and MUSC 1108. 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 1114Aural 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 music education in secondary schools including: ensemble instruction, classroom management and organization. PREREQ: MUSC 2204, MUSC 2214, and MUSC 2252. D

MUSC 3335 Instrumental Music Methods 2 credits. Methods and materials of instrumental music education in secondary schools including: ensemble instruction, classroom management and organization. PREREQ: MUSC 2252, MUSC 2255, MUSC 2256, MUSC 2258, and MUSC 2259. D

MUSC 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. PRE-REQ: 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: MUSIC 3305 and MUSC 3306 or equivalent. D

MUSC 4418 Seminar in Orchestral Music 2 credits. Analysis and study of orchestral works from the Baroque to the present era with particular attention to performance practice. PREREQ: MUSC 3305 and MUSC 3306 or equivalent. D

MUSC 4419 Voice Literature 3 credits. Instructional materials and literature for voice. PREREQ: Junior level standing in applied music or permission of instructor. D

MUSC 4420 Voice Pedagogy 3 credits. A survey and comparative study of pedagogical materials, principles and procedures for voice, with application. PREREQ: Junior level standing in applied music or permission of instructor. D

MUSC 4424 Music in the Baroque Era 3 credits. Intensive study of music from Monteverdi through J.S. Bach. PREREQ: MUSC 3304. D

MUSC 4425 Music in the Classical Era 3 credits. Intensive study of music in the Classical era, principally 1730 through Beethoven. PREREQ: MUSC 3305. D

MUSC 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 Theatre and Dance

Chair and Associate Professor: Hasenpflug

Professors: Dienstfrey, Schroder Associate Professors: Gross, Harwood, Young

Assistant Professor: Garibaldi Lecturers: Romine, Zimmerly Adjunct Faculty: Jorgensen

Emerita: Lloyd

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.

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:

 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.

Auditions

Auditions for Theatre ISU productions are open to all University students. Theatre majors are expected to audition for every mainstage production in order to remain in good standing as a theatre major. Only Theatre majors in good standing are eligible to audition for theatre scholarships.

Bachelor of Arts or Bachelor of Science in Theatre

Required Theatre Courses:

Requireu	Theatre Courses.	
THEA 1111	Stagecraft	3 cr
THEA 1131	Voice and Diction	2 cr
THEA 1191	Theatre Production	1 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 3312	Stage Lighting Design	3 cr
THEA 3391	Theatre Production	1 cr
THEA 4400	Theatre Background I	3 cr
THEA 4401	Theatre Background II	3 cr
THEA 4403	Stage Costume Design	3 cr
THEA 4455	Beginning Stage Direction	3 cr

Choose TWO of the following: THEA 4419 Modern European Theatre 3 cr THEA 4420 American Theatre History 3 cr THEA 4470 Contemporary Theatre 3 cr Plus: Upper division THEA electives 6 cr

Related Areas

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:

DAAC 1100	Dance Basics	1 cr
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 c
MC 2260	Photo and Graphic Design	3 c
THEA 1111	Stagecraft	3 c
THEA 2251	Beginning Acting	3 c
General Education	Goal Courses	15 c
Electives*		5 c

Sophomore Year (32 credits)

Sopilonioi e 10	(02 0.0)	
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 c
MC 3360	Film Style Production	3 c
THEA 3311	Introduction to Scene Des	sign 3 c
	OR	
THEA 4403	Stage Costume Design	3 cı
THEA 4455	Directing	3 c
General Education	on Goal Courses	12 c
Electives		8 c

Senior Year (32 credits)

MC 4451	Television Studio Directing	3 c1
General Education	Goal Courses	10 cr
Electives*		16 cr
Plus one of the foll	lowing:	
THEA 4400	Theatre Background I	3 c1
THEA 4401	Theatre Background II	3 c1
THEA 4419	Modern European Theatre	3 c1
THEA 4420	American Theatre History	3 cı
THEA 4470	Contemporary Theatre	3 c1

*Recommended Electives

Choose electives each semester from the list below:

ANTH 4494	Visual Anthropology	3 cı
ART 1103	Creative Process	3 cı
CIS 1101	Introduction to	
	Computer Systems	3 cı
CMLT 2220	Introduction to	
	International Film Studies	3 cı
CMLT 3335	World Film Studies	3 cı
CMLT 4435	Topics in World Film Studies	3 cı
ENGL 1126	Art of The Film I	3 cı
ENGL 3305	Art of the Film II	3 cı
MC 2215	Graphic Design	3 cı
MC 2230, 2230L	Introduction to Photography,	
	and Lab	3 cı
MC 2290	American Broadcasting	3 cı
MC 4441	Intellectual Property	
	and Commercial Speech	3 cı
MC 4450	Television Workshop	3 cı
THEA 1131	Voice and Diction 2 cr*Elect	ives
THEA 1191,1192,3	3391,3392	
	Theatre Production**	1 cı
THEA 2218	Stage Dialects	2 cı
THEA 3390, 4490	Practicum Theatre Arts I, II1-	-3 cı
THEA 4404	Problems in Acting	3 cı
THEA 4405	Advanced	
	Costume Construction	3 c1

Minors Suggested:

cumulative credits

THEA 4424

THEA 4426

THEA 4456

Art (Studio and Art History minors)–21 credits

** Theatre Production courses may be taken for 8

Advanced Acting Styles

Advanced Scene Design

Advanced Stage Direction

- Business–18 credits
- Dance–24 credits
- English (Creative Writing Option)–21 credits

Minors—Theatre

General Minor in Theatre (Unspecified)

THEA 1101	Appreciation of Dr	rama 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

TOTAL: 25 ci

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: 2	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

*These four courses are 1-credit courses that may be repeated once each.

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 cı
THEA 2211	Drafting	2 cr
THEA 1111	Stagecraft	3 cı
THEA 2209	Stage Lighting	3 cı
THEA 2214	Makeup	2 cr
THEA 2221	Stage Costume Construction	2 cı
THEA 3304	Theatre Management	3 cı
THEA 3311	Introduction to Scene Design	3 cr
THEA 4402	Stage Costume History	3 c1
	OR	
THEA 4403	Stage Costume Design	3 cı
THEA 1191-3392	Theatre Production	3 cı
	TOTAL 2	7 ~

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. THEA 1191 and THEA 3391 may be repeated for up to 8 credits. F, S, Su

THEA 2211 Drafting 3 credits. Class explores mechanical drafting needs in the performing arts with special emphasis on scene and lighting design. Class offers an in-depth look at manual drafting and its extension toward computer-aided drawings. S

THEA 2214 Makeup 2 credits. Laboratory sessions on the technique of makeup. Includes participation on crews of university productions. F

THEA 2218 Stage Dialects 2 credits. A practical course in the production of commonly used stage dialects. Students study the international phonetic alphabet (IPA), and train in dialect development techniques. PREREQ: THEA 1131. D

THEA 2221 Stage Costume Construction 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. PRE-REQ: 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, Devoe, and piping. D

THEA 3304 Theatre Management 2 credits. Consideration of administrative aspects of play production with emphasis on stage management, theatre management, publicity, and advertising. S

THEA 3311 Introduction to Scene Design 3 credits. Basic scene design emphasizing concepts of line, color, form, and texture; drafting techniques, perspective drawing, foreshortening, rendering, and model building will be introduced. PREREQ: THEA 2211. F

THEA 3312 Stage Lighting Design 3 credits. Theory and practice of lighting design as applied to various types of stage production. Includes script analysis, programming of lighting consoles, and methods of design incorporating the manipulation of the controllable properties of light. PREREQ: THEA 1111. S

THEA3331 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. THEA 1191 and THEA 3391 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. AF

THEA 4406 Advanced Light Design 3 credits. Study of lighting design in performing arts. Students gain knowledge through actualized projects, study of television and film lighting, and exploration of the Controllable Properties including color. PREREQ: THEA 1111, THEA 2209, and THEA 3311. D

THEA 4412 Scenic Painting 3 credits. A study of painting techniques as used in theatrical scenery; theory, practice, and equipment will be investigated as they apply to the art of stage painting. AF

THEA 4414 Advanced Makeup 2 credits. Concentrated study of characterization, care, setting, styling and application of various types of wigs. Design and construction of polyfoam prosthesis. PREREQ: THEA2214 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

THEA4424Advanced 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: THEA2251, 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

Dance Program

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	2Theatre Production	1 cr
Choose ONE of	f the following courses (3 c	r):
DANC 4401	Aesthetic Issues in Dance	3 cr
DANC 4410	Dance Composition II	3 cr
MUSC 1100	Introduction to Music	3 cr

Dance Education Emphasis

Anatomical Foundations

of Human Activity

3 cr

TOTAL: 26 cr

Required Courses

PE 2243

DANC 1104	World Dance/Local Identity	3 cı
DANC 1110	Elements of Movement	2 cı
DANC 2205	Dance in the Modern Era	3 cı
DANC 2210	Dance Composition I	3 cı
DANC 2260	Methods of Dance	
	for Children	3 cı
DANC 4460	Dance Teaching Methods	
	and Curriculum Design	3 cı
DANC 1130, 2230	o, or 3330	
	Modern Dance I, II, or III	2 cı

Choose ONE of the following courses (3 cr):

DANC 1105	Survey of Dance	3 c1
DANC 3301	Performance and Society	3 c1
DANC 4401	Aesthetic Issues in Dance	3 c1
MUSC 1100	Introduction to Music	3 c1
P E 2243	Anatomical Foundations	
	of Human Activity	3 c1

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:

	III IIICIUUCI		
ART 1103	Creative Process	3 c	1
BIOL 3301,3301L	Anatomy and Physiology,		
	and Lab	4 c	1
BIOL 3302 3302L	Anatomy and Physiology,		
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	and Lab	4 c	1
DAAC 1100	Dance Basics	1 c	
DAAC 1110	Ballroom Dance I		
		1 c	
DAAC 1111	Ballroom Dance II	1 c	
DAAC 1125	Latin Dance	1 c	
DAAC 1135	Middle Eastern Dance	1 c	
DAAC 1140	Tap Dance I	1 c	1
DAAC 1141	Tap Dance II	1 c	1
DAAC 1150	Folk/Square Dance I	1 c	1
DAAC 1151	Folk/Square Dance II	1 c	1
DAAC 1160	Recreational Dance I	1 c	
DAAC 1161	Recreational Dance II	1 c	
DAAC 1175	Pilates/Dance Conditioning	1 0	•
DAAC 1173	-	1.0	
DAAC 1176	Matwork	1 c	1
DAAC 1176	Pilates/Dance Conditioning		
	Equipment	1 c	
DAAC 1180	Hip Hop I	1 c	
DAAC 1181	Hip Hop II	1 c	1
DAAC 1182	Hip Hop Performance	1 c	1
DAAC 1195	Swing Dance	1 c	1
DANC 1100	Ballet I	2 c	1
DANC 1105	Survey of Dance	3 c	
DANC 1120	Jazz Dance I	2 c	
DANC 1130	Modern Dance I	2 c	
DANC 2200	Ballet II	2 c	
DANC 2220	Jazz Dance II	2 c	
DANC 2220 DANC 2230	Modern Dance II	2 c	
DANC 2230			
DANC 2270		1-2 c	
DANC 2280		1-2 c	
DANC 2290	Contact Improvisation	2 c	
DANC 3300	Ballet III	2 c	
DANC 3320	Jazz Dance III	2 c	1
DANC 3330	Modern Dance III	2 c	1
DANC 3390	Workshop: Cultural Forms	1-2 c	1
DANC 4401	Aesthetic Issues in Dance	3 c	1
DANC 4410	Dance Composition II	3 c	1
DANC 4460	Dance Teaching Methods		
	and Curriculum Design	3 c	1
MUSC 1100	Introduction to Music	3 c	
MUSC 1108	The World of Music	4 c	
P E 2243	Anatomical Foundations	7 0	
P E 2243		2 -	
D.E. 4470	of Human Activity	3 c	1
P E 4470	Care and Prevention of	_	
	Athletic Injuries	3 c	
THEA 1111	Stagecraft	3 c	1
THEA 1191, 1192,	3391, or 3392		
	Theatre Production	1 c	1
THEA 2214	Make-up	2 c	1
THEA 2221	Stage Costume		
	Design and Construction	2 c	1
THEA 2251	Beginning Acting	3 c	
THEA 3300	Theatre Movement Worksho		
THEA 3390		1-2 c	
THEA 4490	Practicum Theatre Arts II	1-3 c	1

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; crosscultural 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. AF

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. PRE-REQ: 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 I1 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, 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 1125 Latin Dance 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

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

DAAC 1135 Middle Eastern Dance 1 credit.

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 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. PRE-REQ: 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—Matwork 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

Department of Political Science

Chair and Professor: Gabardi Professors: Anderson, McBeth Associate Professor: Lybecker Assistant Professors: Carlisle, Forbis, Newman

Adjunct Faculty: Eckert, Phippen Emeriti: Burns, Foster, Hjelm, Maughan,

neriti: Burns, Foster, Hjelm, Maugh Nilson

The study of governments and human beings as decision makers is at once an ancient discipline and one of the most recently developed social sciences. Political inquiry reaches back to the recorded beginnings of human society, for individuals have always been curious about the nature of governments, the bases of authority and personality of leaders, the obligations of followers, and consequences of public policies. Although interest persists in these matters, inquiry has broadened to include scientific observations about politics which utilize relatively new techniques of analysis

that are common to many of the social sciences. The newer emphasis is upon systematic procedures of investigation, rigorous standards of proof, comparative analysis and interdisciplinary studies.

Both of these approaches—the traditional and the behavioral—are offered in the undergraduate and graduate levels of study. The curriculum provides background in the theory and practice of politics and techniques of methodological inquiry for the student with general interests. It offers training of a general and specific nature that is useful for persons planning to seek careers in education, the legal profession, state and local government, urban and regional planning, the federal bureaucracy and journalism, or in any of the proliferating quasi-public organizations which seek to monitor the political processes or to influence the content of public policy.

The Department of Political Science offers programs leading to Bachelor of Arts, Bachelor of Science, Master of Arts, Master of Public Administration, and Doctor of Arts degrees. Within the framework of the Bachelor of Arts and Bachelor of Science programs, students may pursue a major in political science or they may choose an emphasis in pre-law. There is no required or specified curriculum which students who emphasize pre-law are expected to follow. An advisory committee has been created to assist such students in developing a curriculum that reflects their individual needs.

Outcome objectives are related to both student and program development. Student related outcome objectives are listed below:

- 1. To gain a well-rounded knowledge of the basic fields of the discipline.
- 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.
- 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. A signed agreement between the student and a member of the faculty agreeing to academic advising.

Bachelor of Arts or Bachelor of Science in Political Science

Requirements for the B.A. and B.S. Degrees:

In addition to the general requirements for the B.A. and B.S. degrees, political science majors are required to take the following courses from the "core curriculum":

POLS 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 gradity from the gara			

In addition to the 27 credits from the core curriculum, majors are required to earn a minimum of 12 elective credits selected from any of the courses in the political science curriculum (excluding POLS 4459).

Emphasis in Pre-law

Students who desire to complete this emphasis should consult with a pre-law advisor in the Department of Political Science.

Minor in Political Science

Students seeking a minor in political science must complete the following: POLS 1101, 2202, six credits of core curriculum courses (excluding POLS 4460) and six elective political science credits (excluding POLS 4459).

Political Science Courses

Topics into which courses are grouped:

American Indian Studies American Politics Comparative Government General Courses International Politics Introductory Courses Political Analysis Political Theory Public Administration

Public Law

Courses in numerical order, showing title and the topic group where course description appears:

POLS 1101 Introduction to American Government: Introductory Courses

POLS 2202 Introduction to Politics:

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 Bu-

reaucratic 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

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, staffmanagement 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: Hatzenbuehler, Roberts, Turley-Ames, Vik

Senior Research Professor: Robinson Associate Professor: Lawyer, Rasmussen, Wong

Assistant Professors: Brumley, Letzring, McCulloch

Adjunct Faculty: Atkins, Gibson, Landers, Heyneman, Pongratz, Simonson, Sommer, Traughber, Welsh

Emeriti: Enloe, Joe

Psychology is defined as the science of behavior and conscious experience. Its domain ranges from the natural to the social sciences and includes such diverse topics as brain function, sensation and perception, learning and cognition, development, personality, and social behavior. At the undergraduate level, the major emphasizes the role of the liberal arts in higher education and personal development.

Goals for majors in the undergraduate program in psychology are listed below; each goal has associated objectives and competencies.

- 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,
- Be competent in scientific methodology and analysis as they apply to the study of psychology,
- Communicate effectively, in both oral and written form, about issues within the field of psychology,
- Have an understanding of the breadth of the field of psychology and its applications,
- Have knowledge pertaining to individual and cultural differences and their importance in community and public policy decisions,
- 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 healthrelated 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

Required Courses (11 credits)

PSYC 1101	Introduction to	
	General Psychology	3 cr
PSYC 2201	Careers in Psychology	1 cr
PSYC 2227	Basic Statistics	3 cr
PSYC 3303	Experimental Psychology	4 cr

Core Areas

A. Category 1: Choose two of the following four courses:

Child Development	3 cr
Abnormal Psychology	3 cr
Social Psychology	3 cr
Theories of Personality	3 cr
	Abnormal Psychology Social Psychology

B. Category 2: Choose two of the following four courses:

PSYC 4431	Physiological Psychology I	3 cr
PSYC 4445	Psychology of Learning	3 cr
PSYC 4446	Cognitive Processes	3 cr
PSYC 4472	History of Psychology	3 cr

Elective Courses

- Students may choose fifteen (15) elective credits, at least twelve (12) of which must be upper division.
- No more than nine (9) credits can come from PSYC 4483 Special Problems.

 Students planning to apply to graduate school are encouraged to enroll in PSYC 4491 Senior Seminar, which offers opportunities for design and conduct of experiments, as well as additional training in writing. These students are also encouraged to take more classes from the core areas that will be counted as electives and will prepare them for graduate school.

Minor in Psychology

Required Courses (10 credits)

BOX 10.4		
PSYC 1101	Introduction to	
	General Psychology	3 cr
PSYC 2227	Basic Statistics	3 cr
PSYC 3303	Experimental Psychology	4 cr

A. Category 1: Choose one of the following four courses:

PSYC 2225	Child Development	3 cr
PSYC 3301	Abnormal Psychology	3 cr
PSYC 3341	Social Psychology	3 cr
PSYC 4401	Theories of Personality	3 cr

B. Category 2: Choose one of the following four courses:

PSYC 4431	Physiological Psychology I	3 cr
PSYC 4445	Psychology of Learning	3 cr
PSYC 4446	Cognitive Processes	3 cr
PSYC 4472	History of Psychology	3 cr

Electives (6 credits)

The student must take six (6) additional elective credits in psychology.

Psychology Courses

PSYC 1101 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

PSYC2200 Child Abuse 3 credits. Investigation into the psychological and social factors which contribute to child abuse and neglect, and to their identification, treatment, and prevention. D

PSYC 2201 Careers in Psychology 1 credit. Provides psychology majors with the information and skills necessary to be successful and to pursue a career in psychology or a related field. F, S

PSYC 2205 Human Sexuality 3 credits. The psychological, biological, and sociological aspects of human sexuality. Emphasis on gender identity, the human reproductive system, human sexual expressions, and sexual problems in males and females. D

PSYC 2211 Personality and Adjustment 3 credits. The lifelong development of personality and the search for self-realization will be emphasized. Opportunities and crises common at various periods will be discussed. PREREQ: PSYC 1101. D

PSYC 2225 Child Development 3 credits. Study of development from conception through adolescence. Considers typical changes within the biological, cognitive, and socioemotional domains and the influence of contexts (e.g., family, peers, school, culture) within each area. F, S

PSYC 2227 Basic Statistics 3 credits. Consideration of statistical techniques and methods used in psychological investigations in terms of derivation, application, and limitation. PREREQ: MATH 1153 or permission of instructor. F, S

PSYC 2228 Introduction to the Theory of Measurement and Test Construction 3 credits. Brief history and survey of the development of psychological test instruments and an introduction to the theory and mechanisms of test construction. PREREQ: PSYC 2227. D

PSYC 2250 Female and Male Roles 3 credits. Examines the 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. 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. PRE-REQ: 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. PRE-REQ: 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 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. PRE-or-COREQ: PSYC 3303 S

PSYC 4451 Clinical Psychology 3 credits. Surveys the field of clinical psychology; with emphasis on past and present status, diagnosis, assessment, critical topics related to intervention, the clinical psychologist's professional role, and student training. PREREQ: PSYC 1101. D

PSYC 4453 Theory and Method of Psychosocial Child Therapy 3 credits. Review of the psychopathology, diagnosis, and treatment of the major psychosocial disorders of childhood. PREREQ: PSYC 2225. D

PSYC 4463 Clinical Psychology and the Law3 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. D

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

Department of Sociology, Social Work and Criminal Justice

Chair and Professor: Hunter Professors: Leavitt Associate Professor: Hooper Assistant Professors: Hearn, Jensen-Hart, Judd, Williams Visiting Assistant Professors: Burnett, Wold

Affiliate Faculty: Adamcik Emeriti: Aho, Bryan, Pierson

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.

Outcome Objectives

The objectives of the Sociology program are:

1. To gain a well-rounded knowledge of the fields of the discipline.

- 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.
- To engage in problem solving based on varying patterns of behavior of diverse groups.
- 6. To be exposed to a rich variety of perspectives and ideas.
- 7. To prepare for a career after graduation that is related to the sociology major.

The goals of the social work program are:

- Preparation of students for beginning generalist social work practice with individuals, families, small groups, organizations and communities.
- 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.
- Preparation of students for lifelong learning and critical thinking through an educational process combining a liberal arts foundation and a professional foundation.
- Preparation of students to work with diverse, vulnerable, oppressed and disadvantaged populations.

As a graduate of the program, the student is eligible to apply for licensure as a social worker to the State of Idaho. Many excellent career opportunities for social workers are available in the areas of family and children's services, adult and juvenile corrections, health care, community mental health and services for senior citizens.

Bachelor of Arts in Sociology

Sociology deals with social institutions, activities, and patterns of behavior of diverse groups. The challenge for sociologists is to sort out trends and to find ways to resolve the conflicts between groups of people. The sociology major provides students with background in the basic theoretical, research, and substantive areas of the discipline. The field of sociology leads to an understanding of the social forces impinging upon one's life and can lead to careers in many diverse settings.

Required Courses for Graduation

The following courses representing the core of the discipline are required. Sociology majors must attain a grade of "C" or better in all required and elective courses.

SOC 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 at the Baccalaureate level. As such it provides students with a generalist framework for beginning professional social work practice. Social workers help individuals, families, groups, and communities meet basic human needs and enhance the quality of life.

General Education Requirements

Students pursuing the Bachelor of Arts in Social Work must complete Goals 1-9, Goals 10A and 10B and Goals 11-12. Certain goals may be met using Social Work Program requirements; for example:

Goal 3: MATH 1108 (Intermediate Algebra) and MATH 1153 (Introduction to Statistics):

Goal 4: BIOL 1100, 1100L (Concepts Biology: Human Concerns, and Lab);

Goal 11: ECON 1100 (Economic Issues);

Goal 12: PSYC 1101 (Introduction to General Psychology) or SOC 1101 (Introduction to Sociology).

Social Work Requirements

PSYC 3301	Abnormal Psychology	3 cr
SOC 1101	Introduction to Sociology	3 cr
SOC 2207	Social Statistics	3 cr
SOC 2248	Social Diversity	3 cr
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 3375	Advanced Social Work	
	Theory and Application	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 SO	OC, SOWK, Criminal Justice,	
	or PSYC courses*	6 cr
Note: Upper divisio	on courses are those numbered 3	000-

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	2 Independent Problems	6 (cr
SOWK 448:	5 Grieving	3 (cr
SOWK 4486	6 Family Issues in Social	Work 3	er
SOWK 449	1 Seminar**	3 (cr
**May be r	epeated: with different conten	t un to	9

**May be repeated; with different content; up to 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 cumulative GPA of 2.5 for the semester at the time of application.
- 2. Completion of or with current enrollment in the following goals 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 the Social Work Major including a \$30 application fee, a three-to five-page typed statement explaining why you would like to be a social worker and why you might be a good fit for the Social Work Program at Idaho State University, and an unofficial copy of your transcript. See online application form for further details, at http://www.isu.edu/departments/sociolog/docs/swapp.pdf.
- 4. Students must have a background check performed by the Public Safety Office at Idaho State University (call (208) 282-2515). The cost to the student is approximately \$50. The criminal history check must be "in progress" or completed before application is submitted. A background check conducted by the Department of Health & Welfare within six months of application to the Social Work program is acceptable. Senior practicum agencies may require an additional background check. For further information, please refer to the Faculty/ Staff Handbook at http://www isu.edu/ fs-handbook/part6/6 4/6 4o html.
- 5. Completion of a Declaration of Major form.

Application Deadline

The above admission materials must be completed and submitted to the Department of Social Work prior to **February 15** for fall semester admission, and prior to **October 1** for Spring semester admission.

The Social Work Program does not grant credit for previous life or work experience.

All social work majors are required to meet the above standards before they may enroll in upper division social work courses (those numbered 3000 and above). Pre-social work students enrolled in upper division courses without admission to the major will be withdrawn until major admission requirements have been met.

Admission to 4000 Level Courses

Admission to the senior field courses (SOWK 4476-4477) is contingent upon completion of the following:

- a. Completion of 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 coordinator 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 Letters 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

Goal 10B

SPAN 1101-1102	Elementary Spanish	8 c
	OR	
	Satisfactory completion of a	
	language proficiency examina	ation
~		

Goal 11

SOC 1102

POLS 1101	Introduction to American Government	3 cı
Goal 12		

Social Problems

3 cr

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 La	w3 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 st	ubstitute	

Ontion B — Female Corrections

Ծ րստո Ե —	- remaie 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:

1 LOS 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:

- 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. F, 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. D

SOC 3321 Families in American Society 3 credits. American families in social-historical contexts. Contemporary issues confronting families as social institutions and impact of family interaction dynamics. Cross-listed as CFS 3321. PREREQ: SOC 1101 or permission of instructor. D

SOC 3330 Sociology of Health and Illness 3 credits. Sociological examination of health and illness including historical and cultural variations, health care and physician-patient issues. S

SOC 3335 Population and Environment 3 credits. The scientific study of population and its environmental consequences. D

SOC 3366 The Community 3 credits. Examines selected theories of community origins, characteristics, structures, boundaries, and change. Analyze methods of studying various aspects of communities. PREREQ: SOC 1101. F

SOC 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. D

SOC 4431 Criminology 3 credits. Analysis of criminal law, law enforcement, judicial roles and processes, correctional approaches, the criminal offender and societal reactions. Theory and research as applicable to behavior and institutional relations. PREREQ: SOC 1101 or 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. Introductory overview and history of the

credits. Introductory overview and history of the social work profession within the social welfare system, and introduction to the generalist model of practice in social work. Attention is given to micro, mezzo, and macro levels of practice as social workers may work with individuals, families, groups or communities. Students will examine their own beliefs and values and their social, cultural, and historical positioning, and how these forces influence interactions with potential clients. Students will be introduced to ethics, values and standards of the social work profession. Throughout the course, students will be encouraged to apply critical thinking skills to class material. F, S

SOWK 2272 Human Behavior and the Social Environment 3 credits. Conceptual frameworks and issues in human behavior and development across the lifespan, with attention given to the concept of person in the environment as a framework for understanding individual behavior as a function of bio-psycho-social-spiritual processes and interactions. Substantial information on human diversity and at-risk populations, including issues pertaining to racial and ethnic groups, and gender and sexual orientations. F. S

SOWK 3308 Social Work Research 3 credits. Gain an understanding and appreciation of a scientific, analytic approach to building knowledge (critical thinking) for practice and to evaluating service delivery with diverse clients. Various research designs and techniques will be examined in order to provide foundational skills in utilizing research-informed practice and practice- informed research. Use SPSS software to analyze a large data set from the General Social Survey. PREREQ: Admission to Social Work Major. F

SOWK 3371 Social Welfare Policy 3 credits. Examine social policies created as society's strategy for addressing social concerns such as unemployment, poverty, and mental illness. Students will critically evaluate programs and policies in order to develop skills to advance social and economic justice and to deliver effective social work services. PREREQ: Admission to Social Work Major S

SOWK 3372 Practice with Individuals and Families 3 credits. Examine micro level systems within the generalist social work framework. Theoretical frameworks for use with individuals and families as well as interviewing and problem-resolution methods will be covered. Students will

utilize a generalist skill base in learning to engage, assess, intervene and evaluate individuals and families. PREREQ: Admission to Social Work Major. F, S

SOWK 3373 Group Work 3 credits. Mezzo level systems within the generalist social work framework. Group theory, process, dynamics, and practice applications will be covered. Students will use a generalist skill base in learning to engage, assess, intervene, and evaluate small group systems. PREREQ: SOWK 3372. F, S

SOWK 3375 Advanced Social Work Theory and Practice 3 credits. Expansion of theory and practice concepts introduced in SOWK 2272 and used in social work practice courses. The relationship between social work theory and practice is explored for the purpose of increasing depth of understanding and generalization of knowledge. Focus will be on application of theory in building skills necessary for competency including written and oral communication skills, using research evidence to inform practice, and critiquing and utilizing major theoretical frameworks to guide the processes of engagement, assessment, intervention, and evaluation. S

SOWK 4417 Interdisciplinary Evaluation Team 1 credit. Introduction to principles and 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 CSED 4417. PREREQ: Permission of instructor. S

SOWK 4476 Social Work Field Practicum I 6 credits. Placement within a social service agency under direct supervision of a licensed social worker for a minimum of 200 hours and a weekly on-campus seminar. Functions as an entry level opportunity for the student to apply professional values, knowledge and skills. Seminar permits discussion and reflection upon this field experience and serves an integrative function for linking theory to applied practice. PREREQ: SOWK 3308, SOWK 3371, SOWK 3372, SOWK 3373, and SOC 2207. (For Spring only: COREQ: SOWK 4477.) F, S

SOWK 4477 Social Work Field Practicum II 6 credits. Continuation of senior field practicum experience consisting of placement within a social service agency under direct supervision of a licensed social worker for a minimum of 200 hours and a weekly on-campus seminar. Students will refine and utilize professional values, knowledge and skills. Seminar permits discussion and reflection upon this field experience and serves an integrative function for linking theory to applied practice. PREREQ: SOWK 3308, SOWK 3371, SOWK 3372, SOWK 3373, and SOC 2207. PREREQ OR COREQ: SOWK 4476. 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 4484 Title IV-E Scholar Seminar 1 credit. Professional competencies required for social work practice in foster care and adoption assistance programs, to prepare students for career advancement in public child welfare, and to prepare students for child welfare practice addressed by Title IV-E of the Social Security Act. PREREQ: Permission of instructor. COREQ: SOWK 4476 or SOWK 4477. D

SOWK 4485 Grief and Loss for the Helping Professional 3 credits. Prepares students to work with clients experiencing grief and loss issues stemming from a variety of loss experiences including death, physical health changes, trauma, and life transitions. Includes the philosophical, cultural, medical, psychological, and spiritual aspects of grieving and loss; the grief process and factors to consider in working with children, adolescents, and adults; and assessment of complicated grief reactions. D

SOWK 4486 Family Issues for the Helping Professional 3 credits. Advanced course focusing on understanding families and family issues. Explore techniques for assessment and intervention drawn from various current theories. Special focus on at-risk youth and the effects on family dynamics. D

SOWK 4491 Seminar 3 credits. Topical reading, discussion, exploration, experience, and demonstration of learning on selected topics. May be repeated for up to 9 credits with different content. D

SOWK 4494 Community Organization and Social Change 3 credits. Advanced focus on community and organizational structure and function. Uses the generalist model of social work with macro level systems including building knowledge and skills focusing on social action and social change. Specific attention is given to helping students develop necessary skills to engage, assess, intervene and evaluate with organizations and communities (macro level) effectively. PREREQ: SOWK 3372. F

SOWK 4498 Integration of Social Work Methods 3 credits. Comprehensive review and synthesis of all social work content areas within the generalist framework including ethics, critical thinking, diversity, human rights, social and economic justice, research, HBSE, policy and practice. Preparation for Social Work licensure test as well as special topics depending on student need and interests. PREREQ: SOWK 3308, SOWK 3371, SOWK 3372, SOWK 3373, and SOC 2207. COREQ: SOWK 4477. 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. Juliet Carlisle (Political Science)
- Dr. Nicole Hill (Kasiska College of Health Professions)
- Dr. Ann Hunter (Sociology, Social Work and Criminal Justice)
- Ms. Kathleen Lane (Music)
- Dr. Linda Leeuwrik (Art and Pre-Architecture)
- 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)
- Ms. Valerie Williams (College of Education)
- Dr. Lynn Worsham (English)

Minor in Women Studies

The program in Women Studies promotes an interdisciplinary approach to learning that emphasizes gender as an essential component in an understanding of our past, present, and future. Grounded in contemporary scholarship, Women Studies provides students with innovative perspectives from which to analyze and assess familiar subjects. Critical and analytical skills are developed and honed as students identify and contextualize profound connections between gender and one's place in history, one's assigned roles and statuses, and one's access to social, economic, and political power.

Women Studies supports Idaho State University's mission to create an effective and efficient learning environment that serves students of various ages, abilities, needs, and backgrounds. It enhances intellectual growth and complements the degree major by broadening academic knowledge bases and by developing a wide range of skills applicable in a variety of post-graduation settings.

The Women Studies office is located in the Department of History, Liberal Arts Room 348 (208-282-8079).

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.

Introduction to

Women Studies

Feminist Thought

3 cr

Required Courses:

WS 2201

WS 4401

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 Correction	s3 cr	
SOC 3321	Families in American Society	y3 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

WS1160Women'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 ecofeminism. 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

Soliege of Business

College of Business

Kenneth A. Smith, Ph.D., DeanCorey Schou, Ph.D., Associate Dean for Information AssuranceKregg Aytes, Ph.D., Associate DeanRobert Picard, Ph.D., Associate Dean

Department of Accounting

Chair and Professor: Picard
Professors: Boes, Frischmann, Plewa,
K. Smith, Trimmer
Associate Professor: Reis
Visiting Professor and Emerita:
Pumphrey
Emerita: J. Smith

Department of Computer Information Systems

Chair and Professor: Ottaway Professors: Aytes, Beachboard, Parker, C. Schou, Trimmer Lecturer: Nelson Emeritus: Watts

Department of Finance

Chair and Professor: Byers Professors: Hackert, Khang, Brookman Associate Professors: Santhanakrishnan Emeriti: Longmore, Wells

Department of Management

Chair and Professor: Jolly
Professors: Krumwiede, 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 Emeriti: Balsley, LeBlanc, Nitse, Schwendig, Scott

Idaho State University offers a fouryear undergraduate program of business administration and liberal arts subjects leading to the degree of Bachelor of Business Administration. There are seven majors available—Accounting, Computer Information Systems, Finance, General Business, Management, Marketing, and Health Care Information Systems Management. The College of Business also offers minors in Business Administration, Computer Information Systems, Marketing, and International Commerce. In addition, the Master of Business Administration degree is offered through the Graduate School. The B.B.A., M.B.A., and accounting programs are nationally accredited by AACSB, the International Association for Management Education.

Role and Mission

The College of Business, an integral part of Idaho State University, shares the role and mission of the University as established by the State Board of Education. Idaho State University's business programs respond to current and emerging demands within the state and region and serve local and statewide constituencies, including students seeking traditional, nontraditional and continuing education. The College also serves public and private sector management education and economic development needs and engages in research consistent with its undergraduate and graduate programs and public service mission.

The primary mission of the College is to offer high quality professional business educational programs. Excellent undergraduate teaching and learning is a top priority. In addition, a quality M.B.A. program is a vital part of the educational mission. All areas of study appropriately emphasize the local, state, national, and international business environments. The College of Business delivers its educational programs on day and night schedules and at off-campus sites within the Idaho State University primary service area.

The research mission complements the instructional and public service missions. Research focuses on advancing understanding of theory and practice within the business disciplines, developing ways to teach business disciplines more effectively, and defining issues affecting economic development in the region and state.

The service mission of the College uses the expertise of its faculty and staff to enhance economic development. Public service programs focus on continuing education needs of business professionals and applied research and assistance needed by Idaho organizations.

In addition to its primary teaching, research, and service missions, the College of Business supports other programs within the University by providing courses and faculty support.

Undergraduate Curriculum Learning Goals

All business majors should have a solid foundation in each of the discipline areas (accounting, finance, information systems, management, and marketing), as well as be capable of solving open-ended business problems and effectively communicating and working as part of a team. Specifically, the College of Business students should be able to:

- Apply key concepts from financial and managerial accounting in their chosen profession.
- Solve open-ended problems using critical thinking skills appropriately.
- Identify relevant financial data and apply decision-appropriate models.
- Implement the "marketing concept" (a customer-oriented approach to assessing markets and creating market offerings).
- Demonstrate knowledge of the strategic management process.
- Develop effective written business communications.
- Prepare and deliver persuasive, professional presentations on a business issue.
- Effectively use technology to find information and analyze data as part of a problem-solving process.
- Appropriately apply organizational behavior concepts to allow them to work effectively in teams and as part of the larger organization.
- Identify operations issues and apply appropriate business decisions.
- Demonstrate an appreciation for and basic understanding of the globally interdependent, culturally diverse nature of business today.
- Demonstrate ethical reasoning skills within a business context.

The College of Business faculty and departments engage in ongoing assessment activities to evaluate student learning and outcomes. The goal of the College is to prepare students to succeed and compete after completing their education. Assessment occurs in classes as part of assignments, projects and exams. Assessment is designed to help faculty insure student learning. Feedback from assessment is used to help redesign classes and class activities

Laptop Requirement

Undergraduate students in the College of Business are required to have a laptop computer that they can bring to class with them when they begin taking 3300 - level courses. We recommend that you purchase your computer prior to taking MGT 2216 and ACCT 2201, but it is not strictly required for those courses. It is, however, required for CIS 3301 and all other 3300-level business courses.

Laptops are a critical component in the undergraduate curriculum. Both exposure to and mastery of technology prepare students to excel in today's technology-driven business environment and is expected by employers. There are numerous advantages to owning your own notebook computer that you can bring to class. Some courses are technology-intensive, and those courses will use classroom exercises and tests using the computer in class. Outside of class, students find that the ability to communicate and collaborate with classmates and professors greatly enhances their productivity. By making computer use an integral part of their educational environment, students develop a level of familiarity and expertise with the technology that cannot be gained by only occasional use in a computer lab or at home.

There is no specific configuration required for the laptop. It must be capable of running the Windows version of MS Office, including MS Access (this is the database program that is not available in the Apple Mac version of MS Office). One of the primary criteria to consider when purchasing should be long battery life.

Admission to Major Status

Students wishing to major in disciplines offered in the College of Business are first enrolled at Idaho State University as Pre-Business students. To move from Pre-Business status to Business major status, students must be formally admitted to the College of Business. Students begin the admission process by completing an application form and submitting it, together with an official copy of their transcript, to the office of the College of Business. The application process should occur during the semester in which the student will complete the 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
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: Applied Calculus MATH 1160

3 cr

OR BOTH of the following two courses:

MATH 1130	Finite Mathematics	3 c
MATH 1143	College Algebra	3 c
	TOTAL: 2	4 or 27 c

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 Macroeconomic		S	
	and Microeconomics	6	CI
ENGL 1101	English Composition	3	CI
ENGL 1102	Critical Reading and Writing	3	CI
ENGL 3308	Business Communications	3	CI
COMM 2201	Business and Professional		
	Speaking	3	CI

EITHER this course:

MATH 1160 Applied Calculus 3 cr

OR BOTH of the following two courses:

MATH 1130 Finite Mathematics 3 cr 3 cr MATH 1143 College Algebra

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 120 credits.

Core Requirements

To assure a minimum level of competence in all functional areas of business, the College of Business requires each student to complete the following courses:

ACCT 2201	Principles of Accounting I	3 cr
ACCT 2202	Principles of Accounting II	3 cr
CIS 3301	Information Systems	
	and Problem Solving	3 cr
FIN 3315	Corporate	
	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 Organizationa	1
	Behavior	3 cr
MGT 3345	Business Communications	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: 3	

*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 or the Master of Accountancy (MACC) Program (currently under development).

Required Courses

Intermediate Accounting I	3 cı
Intermediate Accounting II	3 cı
Principles of Taxation	3 c1
Managerial and	
Cost Accounting	3 cı
Intermediate Accounting III	3 cı
Auditing	3 cı
Accounting Information System	s 3 cı
OR	
Information Systems Analys	is
and Design	3 cı
Accounting Practicum 3	-6 cı
OR	
Accounting Internship 3	-6 cı
OR	
Small Business and	
Entrepreneurship Practicum	3 cı
	Intermediate Accounting II Principles of Taxation Managerial and Cost Accounting Intermediate Accounting III Auditing Accounting Information System OR Information Systems Analys and Design Accounting Practicum OR Accounting Practicum OR Accounting Internship OR

Complete one track as outlined below:

Operations:

Operations:		
MGT 4434	Productivity and Quality	3 cr
MGT 4482	Project Management	3 cr
Information	a Assurance:	
CIS 3310	Introduction to	
	Information Assurance	3 cr
CIS 4411	Intermediate	
	Information Assurance	3 cr
Information	Systems:	
CIS 4403	System Analysis	
	and Logical Design	3 cr
CIS 4407	Database Design	
	and Implementation	3 c1
Finance:		
FIN 4405	Advanced Corporate	
	Financial Management	3 cr
FIN 4450	Advanced Corporate	

Financial Management II

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):

Kequireu Co	urses (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):

1143 1 11 0 01	the following (o ci).	
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	er
	Information Systems	3 cr
CIS 4493	Advanced Computer Informa	tion
	Systems Internship 1-	-3 cr
MGT 4482	Project Management	3 cr
	TOTAL 1	8 cr
In committeetion	idh dhain maian adriaana adria	1

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:

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		
	es, Seminars, Workshops,	
and Internships		3 cr
	vel Accounting, Management,	
	course except ACCT 3360,	
	Problems, Internships, and	
	fill the College of Business	
	s Graded Internships may	
	Electives only with prior	
Departmental appr		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:

complete the		
ACCT 3360	Small Business Accounting	3 cr
ACCT 4441	Management Control System	s3 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: 3	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	y for the emphasis in Entrepre	neur-

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 to	ken to meet the research req	uirement

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	3 cr
MKTG 4440	Seminar on	
	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: 1	8 cr

Double Major in Management and **Marketing**

Students pursuing the Double Major will take the following courses:

Management:

MGT 4441	Organization Behavior	3 c
MGT 4462	Issues in Business and Society	3 c
MGT 4473	Human Resource Management	3 c
Plus one pure man	agement elective (from courses	s
listed under manag	gement 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 c1

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-appro	oved
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:

Tonowing Cou	1303.	
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.

- FOREIGN LANGUAGE PROFI-CIENCY. Students must demonstrate a proficiency in a foreign language. This requirement could be met through:
 - 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. COURSESTO 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 ECON 4472	International Economics Comparative Economic	3 cr
	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
CIS 3301	Information Systems	
	and Problem Solving	3 cr
ECON 2201,2202	Principles of Macroeconomi	cs
	and Microeconomics	6 cr
FIN 3315	Corporate Financial	
	Management	3 cr
MGT 2216,2217	Business Statistics	6 cr
MGT 3312	Individual and Organizationa	al
	Behavior	3 cr
MGT 3329	Operations/Production	
	Management	3 cr
MKTG 3325	Basic Marketing	
	Management	3 cr
	TOTAL:	33 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)

Required Courses (55 creates)			
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 cı
ACCT 2202	Principles of Accounting II	3 cı
CIS 1101	Introduction to Computer	
	Systems	3 cı
ECON 2201-2202	Principles of Macroeconomic	cs
	and Microeconomics	6 cı
MGT 2216	Business Statistics	3 cı
MGT 2217	Advanced Business	
	Statistics	3 cı
MGT 2261	Legal Environment of	
	Organizations	3 cı

Electives

Business electives*		6 c
		TOTAL: 30 c
* Unner level business .	courses m	as he used to mee

* 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.
- 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. PRE-REQ: 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 4403 Accounting Information Systems 3 credits. A strategic approach to the use of accounting information in an organization. Tools for documentation of business processes and

database design are introduced. Focuses on primary business cycles, interrelationship between them, and impact on accounting information. Includes assessment of risks in information processing and reporting. PREREQ: Accounting or Computer Information Systems major; CIS 3301. PREREQ or COREQ: ACCT 3323 and ACCT 3341. F, S

ACCT 4425 Intermediate Accounting III 3 credits. Continuation of ACCT 3324. Accounting principles of valuation and income determination. Financial accounting reporting in concept as well as in accordance with generally accepted accounting principles. PREREQ: ACCT 3324. 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 4440 Accounting Practicum 3 credits. Advanced students apply accounting concepts to business issues through consulting projects under faculty supervision. Class discussions supplement field work. PREREQ: Accounting major; ACCT 3341. PREREQ OR COREQ: ACCT 3331 and ACCT 4425. D

ACCT 4441 Management Control Systems 3 credits. Focuses on strategic and managerial evaluation and control systems using financial and nonfinancial accounting information. PRE-REQ: 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 StatementAnalysis 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

F, S, Su

BA2200 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.

BA 2203 Issues in Business 3 credits. A basic overview of business operations and current is-

sues 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 1101LIntroduction 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. Introduction to uses of information systems in an organizational context. PREREQ OR COREQ: MGT 2216 or any statistics course and CIS 1101 equivalent skills and knowledge. F, S

CIS 3302 Information Systems 3 credits. Operational and strategic uses of information systems in an organizational context. Examination of critical thinking models and development of writing, oral communication, and teamwork skills. PREREQ: CIS 3301. D

CIS 3303 Information Technology Concepts 3 credits. A hands-on, applied approach to providing the software tools that business minor students are likely to need in an academic setting and early in their careers. The course places an emphasis on the business use of spreadsheets and interaction with the Internet along with current issues in information technology. Available to non-business majors only. D

CIS 3310 Introduction to Information Assurance 3 credits. A survey course providing an introduction to the fields of Information Assurance and Privacy. Emphasizes legal and ethical components of information security practices. The course is designed primarily for non-CIS majors. Not applicable toward CIS major. D

CIS 3320 Advanced Business Programming 3 credits. Advanced programming; dynamic data structures; file organization and processing; efficient searching and sorting techniques. Includes study of an object-oriented visual language and a comparison with a modern database language. PREREQ: CIS 2220. D

CIS 3393 Computer Information Systems Internship 1-3 credits. Internship program coordinated by faculty providing significant exposure to computer information system issues. May not be used to fulfill major requirements. May be repeated for up to 3 credits. Graded S/U. F, S

CIS 4403 Systems Analysis and Logical Design 3 credits. Develops systems analysis skills, using modern CASE techniques, prototyping with a relational database, structured analysis and design phases of the systems development life cycle. PREREQ: CIS 3301 and junior status. F, S

CIS 4407 Database Design and Implementation 3 credits. Design and implementation of multi-user relational DBMS. Use of stored

procedures, advanced SQL, query optimization, transaction processing, DBMS information assurance and administration. Secure object-oriented design, programming and UML. PRE-REQ: 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. PRE-REQ: 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. PRE-REQ: 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. 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 4451 or FIN 4452, but not both, toward their finance electives. PREREQ: FIN 3317. F

FIN 4452 Student-Managed Investment Fund II 3 credits. Continuation of FIN 4451. Management of the D.A. Davidson Student Investment Fund. Students act as financial analysts. Emphasis on security selection, portfolio management, and creation of an annual report. Students can apply either FIN 4451 or FIN 4452, but not both, toward their finance electives. PREREQ: FIN 3317. S

FIN 4464 Entrepreneurial Finance 3 credits. Develops financial/managerial skills important to students pursuing entrepreneurial careers. Topics include financial issues to entrepreneurial firms and financing sources available to entrepreneurial companies. PREREQ: FIN 3315. D

FIN 4475 International Corporate Finance 3 credits. Study of financing investment projects abroad including the tapping of overseas capital markets, financing export transactions, hedging foreign exchange risks, and the control alternatives of international business. PREREQ: FIN 3315 and MGT 2216. D

FIN 4478 Investments 3 credits. Fundamental principles in the risk-return valuation of financial instruments. Topics include the institutional framework in which securities are traded, modern portfolio theory, asset pricing, derivatives, and portfolio management. PREREQ: FIN 3315, 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 individual, group, and total system behavior in achievement of organizational objectives within larger organizational environments. PREREQ: Junior standing and ENGL 1102. F, S

MGT 3329 Operations and Production Management 3 credits. Basic concepts, philosophy, and techniques of analysis for decision-making at the operational level. PREREQ: ACCT 2202 and MGT 2217. PREREQ OR COREQ: CIS 3301. 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 CIS 3301, FIN 3315, FIN 3317, MGT 3312, MGT 3329 and MKTG 3325. 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 4474Advanced 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 alloca-

tion 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. PRE-REQ: 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 amd 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

College of Education

Deborah L. Hedeen, Ph.D., Dean Peter R. Denner, Ph. D., Associate Dean Susan Jenkins, Ph.D., Assistant Dean

The College of Education prepares students (known as "candidates") who seek to enter education-related professions. Candidates pursuing teaching, professional school personnel, or administrative careers in schools and other professional roles will find an assortment of integrated programs organized to meet their professional aspirations. All programs of the College are experiential, collaborative, standards-based, assessment-informed, research-guided, and technology-supported. Idaho State University has an institutional commitment to educator preparation. Educator preparation programs are offered through the faculties of the College of Education, the College of Arts and Letters, the College of Science and Engineering, and the Division of Health Sciences.

College Structure

The College is organized into four academic departments and five centers/offices:

Department of Educational Foundations

Beverly Ray, Ph.D., Chair

The Department of Educational Foundations offers undergraduate and graduate degree programs in elementary education, secondary education, early childhood education, and general family and consumer sciences. The department also offers core courses in educational foundations for teacher preparation programs and master of education degree programs.

Graduate Department of Educational Leadership and Instructional Design

Dotty Sammons-Lohse, Ed.D., Chair

The Graduate Department of Educational Leadership and Instruction Design offers graduate programs in instructional technology, instructional design, and educational leadership, including both public school and higher education administration.

Department of School Psychology, Literacy, and Special Education

David Mercaldo, Ph.D., Chair

The Department of School Psychology, Literacy, and Special Education offers undergraduate degrees in human exceptionality, and graduate degrees in human exceptionality, literacy, school psychology, and deaf education. The department also offers literacy courses for undergraduate teacher preparation programs.

Department of Sport Science and Physical Education

Karen Appleby, Ph.D., Chair

The Department of Sport Science and Physical Education offers undergraduate and graduate degrees in physical education, and the physical education major for secondary education. The undergraduate degrees have four elective emphasis areas--exercise science, outdoor education, physical education teaching K-12, and sport management. Minors in coaching, outdoor education, and sport management are also offered.

Intermountain Center for Education Effectiveness

Charles (Chuck) R. Zimmerly, Ed.D., Director

Susan Jenkins, Ph.D., Associate Director

The Intermountain Center for Education Effectiveness (ICEE) collaborates with local school districts, education agencies, professional organizations, and policy makers throughout the Intermountain West, working within partnerships that enhance the delivery of quality education. The ICEE coordinates professional education programs and coursework, agency/school development, business and community partnerships, and research with its related services.

Advising Center

Paula Mandeville, M.Coun., Coordinator

The Advising Center provides candidates with specific advising information relative to admission to teacher education programs, evaluation of transfer courses,

submission of petitions, academic appeals, and certification recommendations. An education advisor is appointed for each candidate who applies for admission to Teacher Education in the College of Education. In addition to an education advisor in the Advising Center, the Advising Center directs each admitted candidate to obtain a second advisor in his or her major. For some majors, the education advisor may also serve as the advisor for the major.

Office of Field Experiences

Roger Rankin, Ph.D., Coordinator

The Office of Field Experiences administers the student-teaching internship component of clinical experiences including the placement of students, selection of cooperating teachers, and assignment of university supervisors. Copies of the Student Teaching Internship Handbook are available to teacher candidates in the Office of Field Experiences.

Instructional Materials Center

Shu-Yuan Lin, Ed.D., Coordinator

The Instructional Materials Center (IMC) serves as the state repository for curricular materials currently under adoption in Idaho, the Center also houses varied collections of other materials including teaching manipulatives, video and audiotapes, computer software, theses and dissertations, and other professional materials. These collections are maintained to serve students and faculty in the College of Education, the entire campus community, and area in-service educators.

Regional Special Education Office

Beth Eloe-Reep, M.S., Consultant

Richard Henderson, M.Ed., Consultant

Frank Howe, M.Ed., Consultant

The Regional Special Education Consultants work to assist Idaho School Districts to provide high quality programs for students with disabilities. They work under the direction of the State Department of Education Division of Special Education and participate in statewide planning and coordination with the Division of Student Achievement and School Improvement to ensure that coordinated and consistent information, technical assistance, and professional development are shared with superintendents, special education directors, and district personnel throughout the state.

Undergraduate Degrees Offered in the College of Education

Undergraduate degrees offered within the College of Education are:

- Bachelor of Arts in Early Childhood Education
- Bachelor of Arts or Bachelor of Science in:

Elementary Education
Family and Consumer Sciences
Human Exceptionality
(Special Education)
Physical Education
Secondary Education

 Bachelor of Music Education (see also the Department of Music, in the School of Performing Arts, College of Arts and Letters)

Declaration of Major/ Program

The College of Education offers a variety of majors, minors, and emphasis areas. Some degree programs offer both teacher certification and non-teaching options. Candidates for degrees must choose from among the approved majors, minors, or emphasis areas of their degree programs. Candidates seeking teacher certification must choose from among the teaching majors and minors, or emphasis areas, and must choose the teaching option of their degree program. Declaration of major/ program must be accomplished by the time a candidate has completed 58 credits of coursework. For candidates in physical education (non-teaching and teacher certification options), this is usually accomplished at the time of application and admission to the program. For teacher candidates, this is usually accomplished at the time of application and admission to Teacher Education (see the section on Teacher Education). Prior to admission to Teacher Education, prospective teacher candidates will be classified as Pre-Majors in their respective degree programs.

General Education Requirements

All candidates who have declared a major in the College of Education and plan to acquire a Bachelor of Arts 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, special education, and early childhood education programs. Candidates transferring to Idaho State University from a junior college that is part of the state wide articulation agreement should refer to the General Information section of this catalog to determine fulfillment of the university general education requirements; however, all candidates who plan to enter teacher education and who plan to complete the Student Teaching Internship must fulfill, or have fulfilled, 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 programs in those sections of the catalog.

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.

Teacher Education

Many of the degree programs in the College of Education have been designed to meet the Idaho standards and requirements for initial certification of professional school personnel approved by the Idaho State Board of Education and the Idaho State Department of Education. The College of Education shares responsibility with the College of Arts and Letters, the College of Science and Engineering, and the Division of Health Sciences for teacher education programs. The colleges work in close cooperation through the Teacher Educa-

tion Committee. The programs specified in this catalog comply with the current State of Idaho standards and requirements for certifications and endorsements. Idaho certification ensures reciprocity with the certification standards and requirements of most states. The teacher education programs described in this catalog have been approved by the State Board of Education as required for program completers to be eligible for certification. Approved programs (also called regular route certification) are also available to qualified persons holding bachelors degrees from accredited institutions seeking teaching certification. Candidates pursuing initial teacher certification, whether degree seeking or not, must fulfill all teacher education requirements as outlined for institutional recommendation for teaching certification in the area of certification (i.e., Early Childhood, Elementary, Secondary, etc.) and for endorsements (i.e., Biology, History, etc.) on the certificate.

Teacher education programs are updated regularly to reflect changes to the Idaho standards and requirements. Hence, regardless of the ISU Undergraduate Catalog declared for the purpose of meeting ISU graduation requirements, teacher candidates may need to meet changes to certification requirements as specified by the Idaho State Board of Education and the Idaho State Department of Education in order to be eligible for recommendation for initial teacher certification at the time of program completion.

The College of Education Advising Center informs candidates about changes to certification requirements, particularly changes to required tests and qualifying scores.

Standard Teaching Certificates

Persons completing an initial certification program (a k.a. Program Completers) are eligible for recommendation from the College of Education for a standard teaching certificate as follows:

Early Childhood Education/Early Childhood Special Education Blended Certificate (Birth-3)

Standard Elementary Certificate (K-8)

Standard Elementary Certificate (K-12 for Art, English as a New Language, Music, or Physical Education)

Standard Secondary Certificate (6-12)

Standard Secondary Certificate (K-12 for

English as a New Language, French, German, Health, Music, Physical Education, or Spanish).

Standard Exceptional Child Certificate -Generalist (K-12)

For administrator certificates, pupil personnel services certificates (such as school psychologist or school guidance counselor), and the Standard Exceptional Child Certificate with the Hearing Impaired (K-12) endorsement, see the College of Education section of the Graduate School Catalog or pertinent sections of the undergraduate or graduate catalogs for programs offered by the Division of Health Sciences. Candidates interested in becoming certified teachers of children who are deaf/hard of hearing in Idaho will need to earn a bachelor's degree and have met the requirements for a Standard Elementary Certificate (K-8), a Standard Secondary Certificate (6-12), or a Standard Exceptional Child Certificate with the Generalist (K-12) endorsement.

Accreditations

The State of Idaho participates in a partnership agreement with the National Council for Accreditation of Teacher Education (NCATE). To be considered State Board of Education approved, all educator preparation programs must meet NCATE accreditation standards and they must be reviewed and approved by the Idaho State Department of Education. The College of Education is fully accredited by NCATE and its programs have been reviewed and approved by the Idaho State Department of Education. In addition, programs can achieve national recognition through accreditation by national organizations in their areas of specialization. The preschool laboratory is accredited by the National Academy of Early Childhood Programs. The Bachelor of Music Education is accredited by the National Association of Schools of Music. The School Psychology programs (see the Graduate School catalog) are accredited by the National Association of School Psychologists.

Teacher Certification Only and Accelerated Certification

Persons who already hold a Bachelor of Arts or Bachelor of Science degree may seek teaching certification by completing a regular route initial teacher certification program through the College of Education. Candidates must meet the entrance requirements for admission to Teacher Education

(although some admission requirements may be waived by petition - See the section on Petitions) and they must meet the coursework and completion requirements for a standard teacher education program. An Accelerated Certification program (regular route) that starts in May of each calendar year and typically takes one year to complete is available for qualified candidates interested in a Standard Secondary Certificate (for further information contact the Advising Center or the Associate Dean). In addition to application to Teacher Education, candidates for certification-only must complete a Request for Evaluation of Transcripts and submit their transcripts from other institutions for evaluation. Candidates seeking certification also have the option of pursuing a second bachelor's degree (See the requirements elsewhere in the catalog and discuss this option with an advisor).

Alternative Routes to Certification

Idaho permits individuals to become certificated teachers without following a standard teacher education program through one of several Alternative Route programs. For more information, see the Idaho State Department of Education website at http:// www.sde.idaho.gov. The alternative route programs require submission of an application packet and a plan that is approved by the Idaho State Department of Education. Some of the alternative routes require a request from and the participation of an employing school district. Some alternative routes require participation of a college or university. For the College of Education at Idaho State University to participate in an alternative route plan, a copy of the plan must be filed with and signed by the Dean or Associate Dean of the College of Education. The candidate must be admitted to enroll in courses through the University and the candidate must meet other admission requirements as determined by the College of Education (such as verification of a successful background check). Candidates will be assigned a qualified faculty mentor/supervisor from the related regular route teacher preparation program. Because alternative routes are individualized programs, additional fees may be charged.

Additional Endorsements

Candidates for the Standard Secondary Certificate are qualified for subject area endorsements matching their single-subject teaching major or their teaching major and minor fields that fulfill their degree requirements. To add endorsements, candidates can complete additional teaching majors or teaching minors prior to graduation or they can add endorsements to their existing Standard Secondary Certificate after graduation and initial certification. (See the Idaho State Department of Education website at http://www.sde.idaho. gov for the procedures and requirements for adding endorsements to an existing Standard Secondary Certificate.) Persons who already hold a Bachelor of Arts or Bachelor of Science degree and an existing Standard Secondary Certificate can be admitted to the university as non-degree seeking to pursue additional secondary education endorsements. This does not require admission to Teacher Education. However, persons seeking a different teaching certificate must be admitted to Teacher Education in the new certification program area or to an alternative route program.

Candidates meeting the requirements for a Standard Elementary Certificate will also meet the requirements for a middle grades (grades six to eight) teaching field endorsement, if they meet the requirements for an elementary education teaching emphasis and also meet or exceed the state qualifying score for the required Praxis-II subject-area test. Candidates for the Standard Elementary Certificate may also add endorsements to teach at the ninth grade level (Ninth Grade Endorsement). To add a ninth grade endorsement, candidates must complete the requirements for a subject area endorsement as outlined under the requirements for a Standard Secondary Certificate and they must meet or exceed the state qualifying score for the required Praxis-II subject area test. With the exception of the elementary education emphasis in Mathematics, which already meets the requirements for the secondary education endorsement in Basic Mathematics, the listed emphasis areas for the elementary education program do not meet the requirements for the ninth-grade endorsements, but any of them could do so with additional planning and coursework. Candidates in elementary education are encouraged to discuss this with an advisor.

Background Checks and Fingerprinting

Applicants to Teacher Education are required to have completed a background check that includes fingerprinting prior to taking any course that requires admission to Teacher Education. This is usually done

in EDUC 2201 or CFS 2203. Please note another background check is required by the State Department of Education immediately prior to student teaching. In addition, any time there is a break in the continuance of classes after admission to Teacher Education, candidates will be required to complete a new background check. Be aware that background checks may take as long as eight weeks to be completed, so start early in the semester. Admittance or re-admittance to Teacher Education may be delayed until results are received. For additional information, contact the College of Education Advising Center.

Admission to Teacher Education

Candidates must make a formal application and complete an interview for admission to Teacher Education. The Teacher Education Committee approves the standards for admission. Application for admission and the scheduling of the admission interview are completed through forms available in the Advising Center of the College of Education following the completion of at least 26 credit hours of college work. Candidates may not register for courses that require admittance to Teacher Education or register for courses that have prerequisites that require admittance to Teacher Education until admission is achieved. Candidates who have been denied admittance may reapply when qualification criteria have been met; however, they must meet the standards for admission in place at the time of their reapplication to attain admission.

Criteria for admission include the following:

- 1. A 2.75 overall grade point average including all transfer credits or credits earned in a previous degree program.
- 2. A grade of "B" [3.0] or higher in at least two of the following areas with a grade of no lower than "C" [2.0] in any of the three areas:
- ENGL 1101 (English Composition) or ENGL 1102 (Critical Reading and Writing) or College of Educationapproved 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) 1153 Introduction to Statistics
- d) 1160 Applied Calculus
- e) 1170 Calculus I
- A successful background check (see Background Checks and Fingerprinting).
- 4. Agrade of "C" [2.0] or higher in EDUC 2201 Development and Individual Difference (or CFS 2203 The Young Child for Bachelor of Arts in Early Childhood Education candidates), or equivalent. Applicants for admission to a Bachelor of Arts or Bachelor of Science in Human Exceptionality must also complete SPED 3330 or SPED 3340 and earn a grade of at least C [2.0].:
- Agrade of "C" [2.0] or higher in EDUC 2215 Preparing to Teach with Technology or equivalent. Individuals can test out of the EDUC 2215 requirement by passing the IC3 Key Applications competency test offered through the College of Education Advising Center.
- 6. Presentation of minimum scores achieved on the Praxis I Academic Skills Assessments:

Reading = 172; Writing = 174; Mathematics = 169.

- Submission of Professional Portfolio entry with rubric scores completed as course requirement for EDUC 2201 or CFS 2203 (or College of Southern Idaho transfer equivalent).
- A recommendation form completed by the EDUC 2201 or CFS 2203 instructor (or College of Southern Idaho transfer equivalent).
- Submission of signed affidavit indicating awareness of the Idaho Code pertaining to teacher certification requirements.
- Successful completion of the Teacher Education Program Admission Interview.

Professional Education Core

In addition to meeting general education requirements, teaching field requirements, and program specific professional knowledge/methodology requirements, programs preparing candidates for Idaho teaching certificates must ensure that program completers have coursework and preparation in educational foundations and general methodology. The Teacher Education Committee has approved a set of professional core courses to fulfill these requirements and ensure that teacher candidates demonstrate competency with respect to the Idaho Core Teacher Standards through course-embedded performance assessments. In general, the professional core courses are taught by the Department of Educational Foundations and are taken by candidates across the teacher preparation programs. See the list of Professional Education Core courses required by your program, because they vary slightly by degree program.

Dismissal and Probation Policies

Candidates admitted to Teacher Education are subject to the same general policies as the rest the students of Idaho State University as far as probation and dismissal from the institution are concerned. Candidates must continue to demonstrate satisfactory progress in achieving the standards of their programs. In addition to academic standards, candidates may be dismissed from Teacher Education for conduct contrary to the professional standards of the Code of Ethics for Idaho Professional Educators (latest revision, Idaho State Department of Education). Although admission to Teacher Education is to a specific program, dismissal from any teacher preparation program is a dismissal from Teacher Education. Candidates on probation who desire to switch their program to another program in the college or university must file a petition to obtain approval.

Student Teaching Internship

The student teaching internship is designed to be the culminating professional clinical experience for candidates in teacher education. This is a professional development experience during which the intern works in a school context with students. It provides an opportunity for the intern to assume major responsibility for the full range of teaching in an approved school

situation under the guidance of qualified personnel from Idaho State University and the cooperating schools.

The internship is scheduled for a full semester. Candidates should not plan to enroll in any additional coursework during the internship semester. No candidate is permitted to enroll in a correspondence or regularly scheduled course during the semester in which s/he is completing the internship without written permission from the Coordinator of the Office of Field Experiences. All programs other than Music Education require 14 credits of internship. An internship may consist of two blocks of 7 credits or a single block of 14 credits. The Music Education program requires 7 credits or 14 credits to be determined in consultation with the Music Department. Candidates pursuing dual certifications may complete separate blocks of 7 credits in each required internship area.

Teacher candidates must file an application for a student teaching internship with the Office of Field Experiences by October 20 for fall semester of the following year, and by April 20 for spring semester of the following year. There is a \$50 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 candidate's advisor(s) and approved by the Coordinator of the Office of Field Experiences.

The candidate must meet the following criteria for enrollment in a student teaching internship (EDUC 4492, 4494, 4495, or 4496, BED 4496, CFS 4493 or 4495, PE 4495, SPED 4495):

- Admission to a teacher education program.
- 2. Completion of all program requirements unless specifically approved by petition.
- 3. Completion of at least 67% of the professional education core credits required by the program from Idaho State University.
- 4. A 2.75 grade point average overall including all transfer credits or credits earned in a previous degree program.
- 5. A 2.75 grade point average in the professional education core including all transfer credits or credits earned in a previous degree program with a grade of "C" [2.0] or higher in all courses used for the professional education core.

- 6. A grade point average of 2.5 or higher in all courses in the Required Elementary Education Courses for the Bachelor of Arts or Bachelor of Science in Elementary Education and all Required Secondary Education Courses for the Bachelor of Arts or Bachelor of Science in Secondary Education. A grade point average of 3.0 in all Required Special Education Courses for the Bachelor of Arts or Bachelor of Science in Human Exceptionality and no more than one grade of C [2.0] or lower.
- 7. A 2.50 grade point average in the teaching major and minor (secondary) or emphasis area (elementary) including all transfer credits or credits earned in a previous degree program.
- 8. A grade of "C" [2.0] or higher in ENGL 1102 (Critical Reading and Writing) or College of Education-approved equivalent course.
- 9. Successful completion of the Praxis II Content Test(s) in each area being recommended for certification. The Idaho qualifying scores required for each test are available in the College of Education Advising Center and the College of Education Dean's Office.
- 10. For elementary education, human exceptionality (special education), and early childhood education candidates, applicants must demonstrate successful completion of at least two of the three standards tests of the Idaho Comprehensive Literacy Assessment [The qualifying scores for all three tests must be met prior to graduation]. Qualifying scores for the ICLA are available in the College of Education Advising Center.

Application for Certification

Application for certification is separate from application for graduation. Regular route program completers are eligible for institutional recommendation for State of Idaho professional educator certification. It is the responsibility of the applicant to have the Institutional Recommendation completed. Applications for the Standard Elementary Certificate, the Standard Secondary Certificate, the Standard Exceptional Child Certificate, the Administrator Certificate, or the Pupil Personnel Services Certificate are available in the main Administrative Office of the College of Education or on-line from the College of Education website. Program completers must initiate the certification process by submitting a completed application for certification to the Office of the Associate Dean of the College of Education. The application must be completed and returned with a transcript order and check or money order for the certificate attached. Certification applications are forwarded to the State Department of Education Certification Office in Boise. Candidates who desire to pursue professional educator certification in a state other than Idaho are advised to consult with the Associate Dean's office regarding reciprocity agreements with other states and possible additional requirements related to the states in question. The Associate Dean is the official certification officer for the College of Education; all requests for certification must be processed and signed by the certification officer before the papers can be processed by any state Office of Certification. Verification of completion of an Idaho State Board of Education approved teacher preparation program is required to support the application for an Idaho credential. Verification of Idaho qualifying scores for all state required tests in each area being recommended for certification is also required. The College of Education maintains a record of all individuals recommended for certification. The Dean and the faculty of the College of Education reserve the right to refuse to recommend a program completer for a standard teaching certificate, if such recommendation would appear to be contrary to or in violation of Sections 33-1202 and/or 33-1208, Idaho Code.

Petitions

Petitions to be allowed to deviate from institutional policies require submission of an Idaho State University Undergraduate Student Petition and appropriate supporting documentation (See the Petition Policies stated elsewhere in the Catalog). Petitions to be allowed to deviate from College of Education policies and requirements require submission of an Internal College of Education Petition with supporting documentation. Internal petitions are initiated with an advisor or course instructor on forms available from the College of Education website and the Advising Center. For petitions involving teacher education requirements, an Education Advisor from the Advising Center will review the petition, provide a recommendation, and sign the petition. Petitions also require the signature and the recommendation of the appropriate program major advisor, program coordinator, or department chair. Internal petitions are approved or denied by the Associate Dean (or Dean) of the College of Education. A copy of the petition

is retained by the College of Education in the candidate's official file. If additional action is required, approved petitions are advanced to the Registrar's Office.

Department of Educational Foundations

Chair and Professor: Ray Professors: Denner, Jenkins, Rankin Associate Professors: Coffland, Sanger Assistant Professors: Counsell, Hooley, Kelle, Moulton, Rosborough Associate Lecturers: Jacobsen, Lin, Ruchti

Assistant Lecturers: Kauer, Toevs Emeriti: Benintendi, Bliss, J. Coffland, Lerch, Luckey, Marcum, Pehrsson, Peña, Sagness, Salzman, Spadafore

The Department of Educational Foundations is comprised of the following program areas:

Child and Family Studies Elementary Education Secondary Education

Business Education Program

The Business Education program expects its candidates to:

- Develop career awareness and related skills to enable candidates to make viable career choices and become employable in a school setting.
- Develop in-depth knowledge of technology as it relates to the business education curriculum.
- 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.

 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. Amaster'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 nonpaid 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 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 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	s3 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		

1 te comment	aca Licetives	
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 Microecon	omics 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

Coursemon		
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	r 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	
		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 Individ	ual
	Differences	3 cr
EDUC 2204	Families, Communities,	
	Culture	3 cr
EDUC 3301	Inquiring, Thinking,	
	Knowing	3 cr
EDUC 3302	Motivation and Managem	nent 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 Classro	oms 3 cr
CFS 4495	Family and Consumer Sc	iences
	Student Teaching	
	Internship	7-14 cr

Professional-Technical Certification Requirements

HRD 4401	Foundations of Profession	nal-
	Technical Education	3 cr
HRD 4444	Career Guidance and Spe	ecial
	Needs in Professional-	
	Technical Education	3 cr
HRD 4468	Teaching Cooperative Ed	lucation
	and School-to-Work	3 cr

Recommended Electives			
Families			
and American Society	3 cr		
Building			
Positive Relationships	3 cr		
Advanced			
Consumer Economics	3 cr		
Teaching			
Consumer Economics	1-3 cr		
Partnerships			
with Professionals	3 or 6 cr		
Principles of Microecono	omics 3 cr		
	Families and American Society Building Positive Relationships Advanced Consumer Economics Teaching Consumer Economics Partnerships with Professionals		

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 credit	s):
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 Managen	nent 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 Fam	ilies 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 prepa-

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
 - Supporting coursework leading to EITHER an Idaho Standard K-8 Certificate OR the Blended ECE/ECSE Certificate.

Required coursework leading to both emphases:

Introduction to the	
Early Childhood Professio	n 2 cr
The Young Child 3-8	3 cr
Early Childhood Environn	nents
and Interactions	3 cr
Curriculum and Assessmen	nt
in ECE	4 cr
Constructing Social	
Understanding in ECE	4 cr
Integrating Practice in ECI	E 3 cr
Concepts and Practices	
in Blended ECE Programs	I 3 cr
Concepts and Practices	
in Blended ECE Programs	II 3 cr
Methods of Teaching	
Elementary Physical Educati	ion 3 cr
Family, Community, Cultu	re 3 cr
Preparing to Teach	
with Technology	3 cr
Instructional Technology	3 cr
Integrated Language Arts	
Methods	3 cr
Literature for Children	
across the Curriculum	3 cr
Elementary Math Methods	3 cr
Elementary Science Metho	ds 3 cr
Content Area Literacy	3 cr
Developmental Literacy	3 cr
Foundations of ESL	3 cr
Early Childhood Education	1:
Student Teaching	
Internship	7-14 cr
	Early Childhood Professio The Young Child 3-8 Early Childhood Environn and Interactions Curriculum and Assessmer in ECE Constructing Social Understanding in ECE Integrating Practice in ECI Concepts and Practices in Blended ECE Programs Concepts and Practices in Blended ECE Programs Methods of Teaching Elementary Physical Educati Family, Community, Cultu Preparing to Teach with Technology Instructional Technology Instructional Technology Integrated Language Arts Methods Literature for Children across the Curriculum Elementary Math Methods Elementary Science Metho Content Area Literacy Developmental Literacy Foundations of ESL Early Childhood Education Student Teaching

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:

F		
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 A	rt
	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 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

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.
- --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.
- --be aware of the theories related to cognitive and physical child development, classroom management and motivation, lesson planning, delivery, technology classroom integration and assessment.
- --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; COMM 1101: Goal 2: MATH 2256 and MATH 2257; Goal 3: 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; SOC 1101 Goal 12:

- 2. Completion of a major in Elementary Education includes:
 - a. the Professional Education Core.
 - b. the Elementary Education Required Courses
 - c. one Emphasis Area (English, Mathematics, Science, or History), chosen from the fields listed under Elementary Education Emphasis Areas.

The Professional Education Core

Some of these courses are required to be taken before entering the Teacher Education Program (please read course descriptions for prerequisites and corequisites).

EDUC 2201	Development and Individual	
	Differences	3 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: Stude	nt
	Teaching Internship 7-1	4 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
HIST 4423	Idaho History	3	cr
	OR		
GEOL/HIST/POLS	S 4471		
	TT: 1 1 C 1 0T 1 1	~	

Historical Geography of Idaho 3 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 Elemen	itary
	Physical Education	3 cr

Requirements for Elementary Education Standard Certification Only

1. Completion of the Professional Education Core:

EDUC 2201	Development and	
	Individual Differences	3 cr
EDUC 2204	Families, Communities,	
	Culture	3 cr
EDUC 3301	Inquiring, Thinking, Knowing	3 cr
EDUC 3302	Motivation and Management	3 cr
EDUC 3309	Instructional Planning,	
	Delivery, and Assessment	3 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:

Courses.		
EDUC 2235	Introduction to Elementary	
	Art Methods and Materials	3 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	3 cr
PE 3357	Methods of Teaching Elemen	tary
	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
ENGL 2211	Introduction to Literary	
	Analysis	3 cr
ANTH/ENGL 221	2Introduction 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
Upper Division El	NGL 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 Teacher	S
HIST 4418	United States History	
	for Teachers	3 cr
Plus ONE of the f	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 Electives – 6 credits from Categories V and VI

HIST 4423

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.

Idaho History

3 cr

Mathematics (21 cr)

Mathematics in	
Modern Society	3 c1
Language of Mathematics	3 c1
Finite Mathematics	3 c1
Trigonometry	2 cı
Introduction to Statistics	3 c1
Calculus I	4 cı
Linear Algebra	3 cı
2 cr)	
Biology I, and Lab	4 cı
	Modern Society Language of Mathematics Finite Mathematics Trigonometry Introduction to Statistics Calculus I

BIOL 1101, 1101I	Biology I, and Lab	4 c
BIOL 1102, 1102I	Biology II, and Lab	4 c
BIOL 2209, 2209I	LGeneral Ecology and Lab	4 c
BIOL 3302	Anatomy and Physiology	4 c
BIOL 2213	Fall Flora	2 cı
	OR	
BIOL 2214	Spring Flora	2 c
Upper Division Bl	OL Electives	4 c
	TOTAL:	22 c

Geology (23 cr minimum)

GEOL 1100, 11001	LThe Dynamic Earth, and Lab	4 cr
GEOL 1101	Physical Geology	3 cr
GEOL 1110*	Physical Geology for Scientis	sts
	Laboratory	1 cr
GEOL 2202	Historical Geology	3 cı
GEOL 2210	Earth in Space and Time	3 c1
GEOL 3315	Evolution of the Earth's Surface	e4 cı
GEOL 4400	Geology Teaching Practicum	1 c1
GEOL 4410	Science in American Society	2 cr
GEOL/HIST/POL	S 4471	
	Historical Geography of Idaho	4 cı
Plus one of the fol	llowing courses:	
GEOL 3313**	Earth Materials I	3 cr
GEOL 4406	Environmental Geology	3 cı
GEOL 4416	Global Environmental Change	3 cı
GEOL 4456	Geology of Southern Idaho	2 cı
GEOL 4458	Geology of North America	3 cı
*Note: Candidate:	s must take GEOL 1110 even if	`they
have taken the la	b 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 cı
SPED 3330	The Exceptional Child	3 cı
SPED 3334	Classroom Behavior	
	Management	3 cı
SPED 4423	Designing Instruction	3 cı
SPED 4424	Assess Procedures	
	in Special Education	3 cı
SPED 4427	Precision Teaching	1 cı
SPED 4429	Strategies: Severe Disabilities	3 cı
SPED 4432	Direct Instruction Systems	3 cı
SPED 4438	Policies and Procedures in	
	Special Education	3 cı
SPED 4446	Secondary Special Education	3 cı

Plus three credits of Electives selected from the following:

mom the rono	wing.		
PE 4494	Adapted Physical Activity	3	CI
PSYC 3332	Psychology of Adolescence	3	CI
PSYC 4445	Psychology of Learning	3	CI
SOC 2231	Juvenile Delinquency	3	CI
SPED 4426	Assessment:		
	Severe Disabilities	3	CI
SPED 4440	Biomedical Aspects		
	of Physical Disability	2	CI
SPED 4443	Autism	2	CI
SPED 4448	Pre-Practicum, Moderately		
	Handicapped	1-3	CI
SPED 4480	Seminar in Special Education	on 1	CI
SPED 4491	Seminar	1-3	CI
SPED 4498	Advanced Field Work	1-3	CI

Secondary Teacher Education

Summary of Requirements for a Bachelor of Arts or a Bachelor of Science degree in Secondary Education:

A minimum of 128 semester credit hours to include:

- 1. Completion of general university requirements (see Academic Information and Graduation Requirements of the university).
- 2. Completion of a subject teaching major of at least 30 semester credit hours as recommended by the subject department and approved by the College of Education, and completion of a subject teaching minor of at least 20 semester credit hours as recommended by the subject department and approved by the College of Education, OR completion of a single subject teaching major of at least 45 semester credit hours as recommended by the subject department and approved by the College of Education.

 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 Manageme	ent 3 cr
EDUC 3309	Instructional Planning,	
	Delivery, and Assessment	6 cr
EDUC 3311	Instructional Technology	3 cr
SPED 3350	Creating Inclusive Classroo	ms 3 cr
EDUC 4496	Secondary Education:	
	Student Teaching	
	Internship	7-14 cr

Required Secondary Education Course

EDUC 4401 Content Area Literacy 3 cm

Requirements for Secondary Education Certification Only

- 1. Completion of a subject teaching major of at least 30 semester credit hours, as recommended by the subject department and approved by the College of Education, and a subject teaching minor of at least 20 semester credit hours, as recommended by the subject department and approved by the College of Education, OR completion of a single subject teaching major of at least 45 semester credit hours as recommended by the subject department and approved by the College of Education.
- 2. Completion of the Professional Education Core and Student Teaching Internship:

EDUC 2201	Development and	
	Individual Differences	3 cr
EDUC 2204	Families, Communities,	
	Culture	3 cr
EDUC 3301	Inquiring, Thinking, Knowing	3 cr
EDUC 3302	Motivation and Management	3 cr
EDUC 3309	Instructional Planning,	
	Delivery, and Assessment	3 cr
EDUC 3311	Instructional Technology	3 cr
SPED 3350	Creating Inclusive Classrooms	3 cr
EDUC 4496	Secondary Education:	
	Student Teaching Internship 7-	14 cr

2. Completion of Secondary Education Required Course:

EDUC 4401 Content Area Literacy 3 cr

Secondary Education Teaching Majors and Minors

The Secondary Education program aligns with the College of Education Core Standards of Teacher Education and the Conceptual Framework. In addition, the program graduates teachers who exemplify the following guiding principles. The Secondary Educator:

- 1. Is a content area expert able to represent subject matter in multiple ways to ensure depth of student understanding.
- 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.
- 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, 2209L	General Ecology, and Lab	4 cr
BIOL 2221,2221L	Introductory Microbiology,	
	and Lab	4 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	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	3 cr		
BIOL 4405, 4405L	Plant Form and Function,			
	and Lab	4 cr		
BIOL 4406	Plant Diversity and Evolution	n4 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

BI	IOL 1101, 1101L Biology I and Lab	4 cr
BI	IOL 1102, 1102L Biology II and Lab	4 cr
BI	IOL 2221,2221L Introductory Microbiology,	
	and Lab	4 cr
BI	IOL (Botany—a minimum of 2 credits are re-	quired
for	r teaching certification)	2-4 cr
BI	IOL 4413 Biology Teaching Methods	3 cr

MATH 1153	Introduction to Statistics OR	3 c
MATH 1160	Applied Calculus	3 c
Plus two of	the following:	
BIOL 2209	General Ecology	4 c
BIOL 3358	Genetics	3 c
BIOL 4417	Organic Evolution	3 c

Business Education Major

Dusiness	Education Manjo	-
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 Speci	al
	Needs in Professional-	
	Technical Education	3 cr
HRD 4468	Teaching Cooperative Educ	cation
	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		
Salact from th	Select from the following: 3 cr			

Select from the following: 3 cr

CI D 44/0	Consumer Leonomics	2	·	4
ECON 1100	Economic Issues	3	С	1
ECON 2201	Principles of Macroeconomics	3	С	1
ECON 2202	Principles of Microeconomics	3	С	1

Chemistry Major

CHEM 1111,1111L General Chemistry I, and Lab 5 cr			
CHEM 1112,1112LGeneral 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			

Chemistry Minor

CHEM 1111,1111L	General Chemistry I, and Lab	5 cr
CHEM 1112,1112I	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	s 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		

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 Managemen	t3	cr
MKTG 3327	Consumer Behavior	3	cr

Deaf Education Minor*

CSED 1126	Deaf Studies	1 cr
CSED 2205	Introduction to Communicati	on
	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 c	redits 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: 2	24 cr
* /	1	

* (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 Macroeconomic	ics 3 cr
ECON 2202	Principles of Microeconom	ics 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 elective	s in Economics	12 cr

Economics Minor

ECON 2201	Principles of Macroeconomic	s 3 ci
ECON 2202	Principles of Microeconomic	es 3 ci
ECON 3301	Macroeconomic Theory	3 c1
ECON 3302	Microeconomic Theory	3 c1
Approved elective	s in Economics	12 cı

English Major

_	•	
ENGL 2211	Introduction to	
	Literary Analysis	3 cr
ENGL 2267 or 2268	Survey of	
	British Literature I or II	3 cr
ENGL 2277 or 2278	Survey of	
	American Literature I or II	3 cr
ENGL 2280	Grammar and Usage	3 cr
	OR	
ENGL 2281	Introduction to Language Studies	3 cr
ENGL 3311	Writing and Research	
	About Literature	3 cr
ENGL 4433*	Methods: Teaching English	3 cr
ENGL 4491	Senior Seminar in Literature	3 cr

One of the following:

ENGL 4472	Proseminar in	
	a Major Literary Figure	3 c
ENGL 4473	Chaucer	3 c
ENGL 4474	Milton	3 c
ENGL 4476	Shakespeare	3 c
	=	

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 St	udent
Teaching Internship.	

English Minor

Grammar and Usage	3 cı
	<i>5</i> CI
OR	
Introduction to Language Studies	3 cı
2 2	
Writing About Literature	3 cı
Methods: Teaching English	3 c1
rections. Tenening English	<i>J</i> 0.
0	OR introduction to Language Studies Writing About Literature

Plus one course from the following:

ENGL 2206	Creative Writing Workshop	3 c
ENGL 3307	Professional and	
	Technical Writing	3 c
ENGL 3308	Business Writing	3 c
ENGL 4401	Advanced Composition	3 c
ENGL 4431	Teaching and Writing	
	Projects: Special Topics	3 c

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

* 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 2212Introduction to Folklore/

711111/LINGL 2212	introduction to 1 orkioic		
	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 Methodo	ology (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/LA			
	Nature of Language	3	cr
Choose one co	ourse from:		
ANTH 4450	Introduction to Socio-		
	linguistics	3	cr
ANTH/LANG 445	5 Linguistic Analysis I	3	cr
Family on	d Consumor		

Family and Consumer Sciences Minor

CFS 2203	The Young Child	3 c
CFS 3314	Interior Design and	
	Housing Perspectives	3 c
CFS 3332	Programs in Family and	
	Consumer Sciences	3 c
CFS 4429	Social and Psychological	
	Aspects of Clothing	3 c
CFS 4431	Family Resource Managen	nent 3 c
EDUC 2204	Families, Communities,	
	Culture	3 c
NTD 1104	Foods	3 c

Select one course from the following:

CFS 2209	Early Childhood	
	Environments	3 cr
CFS 2229	Textile Products	3 cr
CFS 4435	Relationships Within Fam	ilies 3 cr
CFS 4470	Consumer Economics	3 c1
NTD 2204	Meal Management	2 cr
NTD 2239	Nutrition	3 c1
This is a	non-certification progra	ım;

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 cou	ırses
LANG 4437	The Teaching of	
	Foreign Languages	3 cr
Upper division ele	ectives in French	12 cr
(must be approved	d by the Department of Lan	guages
and Literatures an	d 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 (must be approved by the Department of Languages and Literatures and the College of Education)

Geology Major (at least 30 cr)

GEOL 1100, 1100L The Dynamic Earth, and Lab 4 cr

	OR	
GEOL 1101	Physical Geology	3 cr
GEOL 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	e4 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/POL	S 4471	

Historical Geography of Idaho 4 cr Plus approved electives from the following,

to read	ch a	total	of at	least	30	credits:	

to reach a total of a	it least 50 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 c	ourses as approved by Geoscie	nce
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 Chang	e3cı
GEOL 4422	Planetary Geology for Teacher	s3 cı
GEOL 4456	Geology of Southern Idaho	2 cı
GEOL 4458	Geology of North America	3 cı
GEOL/HIST/POL	S 4471	
	Historical Geography of Idaho	4 cı
GEOL 4491	Seminar	1 cı
Other geoscience e	electives may be approved	
by advisor		
*Note: Candidates	must take GEOL 1110 even if	they
1 . 1 . 1 . 1 . 1	C CEOI HAD CEOI	1101

have taken the lab for GEOL 1100 or GEOL 1101 (GEOL 1100L or GEOL 1101L).

German Major

GERM 3301-3302 German Conversation and Composition and their prerequisites or equivalent high school courses

LANG 4437	The Teaching of	
	Foreign Languages	3 cr
Upper division of	electives in German	12 cr
(must be approv	ved by the Department of L	anguages
and Literatures	and the College of Educatio	n)

German Minor

GERM 2201,2202	Intermediate German	8 cr
	(or equivalent)	
LANG 4437	The Teaching of	
	Foreign Languages	3 cr
Approved electives	s in German	12 cr
(must be approved	by the Department of Lar	iguages
and Literatures and	the College of Education))

Health Education Teaching Major

Prerequisites:

Admission to Teacher Education Program Admission to Health Education Program

Health Education Core:

Tremen Banen		
HE 2200	Promoting Wellness	2 cı
HE 2221	Introduction to Health	
	Education	3 c1
HE 3340, 3340L	Fitness and Wellness	
	Programs, and Lab	3 c1
HE 3342	Stress and Emotional Health	3 c
HE 4410	Behavior Change Theory	
	and Application	3 c
HE 4420	Health Program Planning	
	and Implementation	3 c
HE 4435	Health Program Evaluation	
	and Research	3 c

Plus the following School Health **Emphasis Courses:**

HE 4430	Curriculum and Methods	
	in Health Education	3 cr
HE 4442	Environmental Health	
	and Health Education	3 cr
HE 4443	Substance Abuse	
	and Health Education	3 cr
HE 4445	Human Sexuality	
	and Health Education	3 cr
	TOTA	L: 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 th	ie toliowing three coul	ses:
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 c
HIST 1102	Modern Europe	3 cm
HIST 2249	World Regional Geography	3 c
HIST 2251	Latin America	3 c
HIST 2252	East Asian History	3 c1
HIST 2254	Middle Eastern Civilization	3 c
HIST 2255	African History and Culture	3 c
Note: Candidates m	ay use one of the above courses	to
satisfy Goal 10A of	the General Education Require	-
monte		

Category II: Research Skills (6 credits) Candidates must take both of the following courses sequentially.

Category III:	Course for Teachers	
HIST 4491	Seminar	3 cr
HIST 2191	The Historian's Craft	3 cr

HIST 4418 United States History

for Teachers Category IV: Upper Division U.S. History: 6 credits

3 cr

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

^{**(}PREREQ or COREQ is CHEM 1111)

3 cr

12 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
	3	
Cotogory III.	Course for Teachers	
	Course for feachers	2
HIST 4418	U S History for Teachers	3 cr
Category IV:	Upper Division U.S.	
History: 6 cre		
Choose one 3	000-level course and	one
	rse from the Category IV	
of upper divisi	on History elective cour	ses
	or of Arts in History in	
Arts and Scien	ices section of this catal	og.
Comparative 3 credits Choose one country of upper division in the Bachelor	urse from the Category V on History elective cour of Arts in History in the A	list
and Sciences s	section of this catalog.	
and belefices s	ection of this catalog.	
Mass Com	nmunication Min	٥r
Mass Com	illiullication Milli	UI
ENGL 4433	Methods: Teaching English	3 cr
	(highly recommended)	
MC 1119	Introduction to Mass Media	3 cr
MC 1121,1121L	Reporting and Newswriting,	
WC 1121,1121E	and Lab	4 cr
MC 2220 2220I		4 (1
MC 2230, 2230L	Introduction to Photography,	2
	and Lab	3 cr
MC 3325	Editing for Print Media	4 cr
A 1 .1.	.4*	
	ctives 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
	and Society	5 01
Madhamad	ias Maiau	
Mathemat	ucs 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
	Calculus III	
MATH 2275		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 th	. f. II	
	e tollowing:	
	_	
MATH 3327	Vector Analysis	3 cr
	_	3 cr 3 cr
MATH 3327	Vector Analysis	
MATH 3327 MATH 4408	Vector Analysis Modern Algebra II	3 cr
MATH 3327 MATH 4408 MATH 4444	Vector Analysis Modern Algebra II Modern Geometry II	3 cr
MATH 3327 MATH 4408 MATH 4444 Mathemat	Vector Analysis Modern Algebra II Modern Geometry II tics Minor	3 cr
MATH 3327 MATH 4408 MATH 4444	Vector Analysis Modern Algebra II Modern Geometry II	3 cr
MATH 3327 MATH 4408 MATH 4444 Mathemat	Vector Analysis Modern Algebra II Modern Geometry II tics Minor	3 cr
MATH 3327 MATH 4408 MATH 4444 Mathemat	Vector Analysis Modern Algebra II Modern Geometry II tics Minor Computer Science	3 cr 3 cr
MATH 3327 MATH 4408 MATH 4444 Mathemat CS/ENGR 1181	Vector Analysis Modern Algebra II Modern Geometry II tics Minor Computer Science and Programming I	3 cr 3 cr
MATH 3327 MATH 4408 MATH 4444 Mathemat CS/ENGR 1181 MATH 1170 MATH 1175	Vector Analysis Modern Algebra II Modern Geometry II tics Minor Computer Science and Programming I Calculus I Calculus II	3 cr 3 cr 4 cr
MATH 3327 MATH 4408 MATH 4444 Mathemat CS/ENGR 1181 MATH 1170 MATH 1175 MATH 2240	Vector Analysis Modern Algebra II Modern Geometry II tics Minor Computer Science and Programming I Calculus I Calculus II Linear Algebra	3 cr 3 cr 4 cr 4 cr 3 cr
MATH 3327 MATH 4408 MATH 4444 Mathemat CS/ENGR 1181 MATH 1170 MATH 1175 MATH 2240 MATH 2275	Vector Analysis Modern Algebra II Modern Geometry II tics Minor Computer Science and Programming I Calculus II Linear Algebra Calculus III	3 cr 3 cr 4 cr 4 cr 4 cr 4 cr
MATH 3327 MATH 4408 MATH 4444 Mathemat CS/ENGR 1181 MATH 1170 MATH 1175 MATH 2240 MATH 2275 MATH 2287	Vector Analysis Modern Algebra II Modern Geometry II tics Minor Computer Science and Programming I Calculus I Calculus II Linear Algebra Calculus III Foundations of Mathematics	3 cr 3 cr 4 cr 4 cr 4 cr 4 cr 3 cr
MATH 3327 MATH 4408 MATH 4444 Mathemat CS/ENGR 1181 MATH 1170 MATH 1175 MATH 2240 MATH 2275 MATH 2287 MATH 3343	Vector Analysis Modern Algebra II Modern Geometry II tics Minor Computer Science and Programming I Calculus I Calculus II Linear Algebra Calculus III Foundations of Mathematics Modern Geometry I	3 cr 3 cr 4 cr 4 cr 4 cr 3 cr 4 cr 3 cr 3 cr
MATH 3327 MATH 4408 MATH 4444 Mathemat CS/ENGR 1181 MATH 1170 MATH 1175 MATH 2240 MATH 2275 MATH 2287	Vector Analysis Modern Algebra II Modern Geometry II tics Minor Computer Science and Programming I Calculus I Calculus II Linear Algebra Calculus III Foundations of Mathematics	3 cr 3 cr 4 cr 4 cr 4 cr 4 cr 3 cr

And one of the following:

Elementary Analysis

Modern Geometry II

Modern Algebra I

3 cr

3 cr

3 cr

MATH 3326

MATH 4407

MATH 4444

Music Education

See Bachelor of Music Education degree program (K-12 certification) for requirements.

Physical Education Major

I IIJ SICU	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, 3301	L Physiology of Exercise,
	and Lab 3 cr
PE 3302, 3302	L 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 Education3 cr
PE 4475	Organization and Administration of
	Physical Education and Sport3 cr
PE 4494	Adapted Physical Activity 3 cr
Aquatics (con	sult with advisor) 1 cr
	TOTAL: 53 cr
	N: Candidate must present a current
Red Cross Fire	st 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	s in Physics	8 cr
* Calculus is requi	red for PHYS 2211-2212.	
** MATH 3360 is 1	required for PHYS 3301	

Physics Minor

-		
PHYS 1152-1153	Descriptive Astronomy	
	and Laboratory	4 c
PHYS 2211-2212*	Engineering Physics	8 c
PHYS 2213-2214	Engineering Physics Lab	2 c
PHYS 4400	Practicum in Physical	
	Science	2 c
PHYS/GEOL 4410	OScience in American Society	2 c
Approved elective	s in Physics	4 c
* Two semesters	s of calculus are required	for
PHYS 2212.		

Political Science Major

Credits selected from core curriculum						
(excluding POLS 4460)						
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 so	elected from:	
POLS 4401	Political Parties and	
	Interest Groups	3 cr
POLS 4427	Voting and Public Opinion	3 cr
POLS 4443	Constitutional Law	3 cr
Psycholog	y 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 elective	s in Psychology	9 cr
Duggier N	Tin ou	
Russian M	linor	
RUSS 2201-2202	Intermediate Russian	8 cr

Social Science Major

Approved electives in Russian

LANG 4437

PSYC 2227

PSYC 3310

Required prerequisite foundational courses which also satisfy the General Education requirements:

OR equivalent

(must be approved by the Department of Languages and Literatures and the College of Education)

The Teaching of Foreign Languages

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 Cor	urses	
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 so	elected 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 so	elected from:	
HIST 4418	U S History for Teachers	3 cr
HIST 4423	Idaho History	3 cr
One course so	elected from:	

Basic Statistics

Applied Techniques

3 cr

		_						
SOC 2206	Sociological Methods	3 cr	SOC 4408	Advanced Sociological		THEA 1191	Theatre Production	
SOC 2207	Social Statistics	3 cr		Methods	3 cr		AND/OR	
			SOC 4413	Mind, Body and Society	3 cr	THEA 3391	Theatre Production	2 cr
Social Sc	ience Minor*		SOC 4431	Criminology	3 cr	THEA 4455	Beginning Stage Direction	3 cr
			SOC 4450	Developing Societies	3 cr			
ECON 2201	Principles of Macroeconomic		SOC 4462	Power, Class, and Prestige	3 cr	Chaosa ONE	of the following:	
ECON 2202	Principles of Microeconomics	3 cr					_	
HIST 1102	Modern Europe	3 cr	Spanish M	Taior		THEA 2214	Makeup	2 cr
HIST 1118	U S History and Culture	3 cr	-	•		THEA 2221	Stage Costume Construction	a 2 cr
HIST 2249	World Regional Geography	3 cr	SPAN 3301-3302	Spanish Conversation		THEA 3304	Theatre Management	2 cr
POLS 1101	Introduction to			and Composition	6 cr			
	American Government	3 cr		and their prerequisites or		Chansa ONF	of the following:	
PSYC 1101	Introduction to			equivalent high school cour	ses		e	
	General Psychology	3 cr	LANG 4437	The Teaching of		THEA 4400	Theatre Backgrounds I	3 cr
SOC 1101	Introduction to Sociology	3 cr		Foreign Languages	3 cr	THEA 4401	Theatre Backgrounds II	3 cr
SOC 2248	Social Diversity	3 cr	Upper Division el	ectives in Spanish	12 cr	THEA 4419	Modern European Theatre	3 cr
_				d by the Department of Lang	uages	THEA 4420	American Theatre History	3 cr
One course	in non-U.S. History or	one		d the College of Education)	, ,	THEA 4470	Contemporary Theatre	3 cr
course selec	ted from:			,				
ANTH 1100	General Anthropology	3 cr	Spanish N	linar				
ANTH 2237	Peoples and Cultures	3 01	Spanish N	HIIOT		C:1 -	C 4	
711111111111111111111111111111111111111	of Old World	3 cr	SPAN 2201-2202	Intermediate Spanish	8 cr	Single	Subject	
ANTH 2238	Peoples and Cultures	3 61		(OR equivalent)		0	J	
AN111 2230	of New World	3 cr	LANG 4437	The Teaching of		Tasaki	Maia	
	of New World	3 (1		Foreign Languages	3 cr	Teachi	ng Majors	
One course	selected from:		Approved elective		12 cr		<i>9</i> y	
POLS 3331	Comparative Politics:			d by the Department of Lang		A .		
1 OLS 3331	Framework for Analysis	3 cr		d the College of Education)	,uu _b es	Art		
POLS 4432	Comparative Politics:	3 (1	una Enciatares un	a the conege of Education)		ART 1100	Survey of Art	3 cr
1 OLS 4432	Change and Political Order	2	Three credits	of electives selected fro	nm	ART 1100 ART 1101-1102	History of Western Art I & I	
POLS 4433	Politics of Developing	3 (1			,,,,,	ART 1103-1104	Creative Process	6 cr
POLS 4433	Nations	2	the following:			ART 1105-1104 ART 1105	Drawing I	3 cr
	Nations	3 cr	PE 4494	Adapted Physical Activity	3 cr	ART 3334		3 (1
One course	selected from:		PSYC 3332	Psychology of Adolescence		AKI 3334	Secondary School Art	2
SOC 2248	Social Diversity	3 cr	PSYC 4445	Psychology of Learning	3 cr	A	Methods	3 cr
SOC 4462	Power, Class, and Prestige	3 cr	SOC 2231	Juvenile Delinquency	3 cr	Approved elective	S III AIT	24 cr
	mpanied by a major or mine		SPED 4426	Assessment:			6 •	
	mpanieu by a major or mine es, Economics, Geography, His			Severe Disabilities	3 cr	Biological	Sciences	
	es, Economics, Geography, 111: e, Psychology, or Sociology to		SPED 4440	Biomedical Aspects of		BIOI 1101 11011	LBiology I, and Lab	4 cr
		тееі	01220	Physical Disability	2 cr		L Biology II and Lab	4 cr
state certification	n requirements.		SPED 4443	Autism	2 cr	BIOL 3358	Genetics	3 cr
o	3.5 .		SPED 4448	Pre-Practicum,	2 01	BIOL 3338 BIOL 2206		3 cr
Sociology	/ Major		SI LD 1110		1-3 cr		Cell Biology	
SOC 1101	Introduction to Sociology	3 cr	SPED 4480	Seminar in Special	1-3 C1	BIOL 2207	Cell Biology Laboratory	1 cr
SOC 1101 SOC 1102	Social Problems	3 cr	SFED 4400	Education	1 cr	BIOL 2209	General Ecology	4 cr
SOC 2206	Sociological Methods	3 cr	SPED 4491		1-3 cr	BIOL 2221,2221L	Introductory Microbiology,	
	_					DIOT 4440	and Lab	4 cr
SOC 2231	Juvenile Delinquency	3 cr	SPED 4498	Advanced Field Work	1-3 cr	BIOL 3310	Invertebrate Zoology	4 cr
SOC 2248	Social Diversity	3 cr				BIOL 4412	Systematic Botany	4 cr
SOC 3301	Classical Social Theory	3 cr	Theatre M	lajor		BIOL 4413	Biology Teaching Methods	3 cr
SOC 4462	Power, Class, and Prestige	3 cr	COMM 2208	Group Communication	3 cr	BIOL 4417	Organic Evolution	3 cr
Electives sel	ected from:		COMM 3305	Argumentation and Debate	3 cr	BIOL 4491	Seminar	1 cr
SOC 2207	Social Statistics	3 cr	THEA 1101	Appreciation of Drama	3 cr	BIOL 4492	Seminar	1 cr
SOC 3321	Families and American	3 (1	THEA 1111	Stagecraft Stage	3 cr	MATH 1153	Introduction to Statistics	3 cr
30C 3321	Society Society	3 cr	THEA 1111	Theatre Production	3 (1		OR	
SOC 2225		3 (1	111EA 1191	AND/OR		MATH 1160	Applied Calculus	3 cr
SOC 3335	Demography and	2	THEA 3391		2	Dl.,, .,, . £41.	fallanda a hatana	
SOC 4402	Human Ecology	3 cr	THEA 2251	Theatre Production	2 cr		ne following botany	
SOC 4403	Contemporary	2		Beginning Acting	3 cr	course option	is:	
COC 4400	Sociological Theory	3 cr	THEA 2252	Intermediate Acting	3 cr	BIOL 2213, 2214	Spring and Fall Flora	4 cr
SOC 4408	Advanced Sociological	2	THEA 3331	Materials and Methods for	2	BIOL 4404	Plant Physiology	3 cr
COC 4412	Methods	3 cr	THE A AASS	High School Speech Arts	3 cr	BIOL 4405, 4405L	Plant Form and Function,	
SOC 4413	Mind, Body and Society	3 cr	THEA 4455	Beginning Stage Direction	3 cr		and Lab	4 cr
SOC 4431	Criminology	3 cr				BIOL 4406	Plant Diversity and Evolutio	on4 cr
SOC 4450	Developing Societies	3 cr	Choose ONE	of the following:		BIOL 4408	Plant Ecology	3 cr
~			THEA 2214	Makeup	2 cr	Plus upper division	on electives in biological sc	cience
Sociology	/ Minor		THEA 2214 THEA 2221	Stage Costume Construction			e total credits in biological scie	
SOC 1101		2				to 45 semester hou		
SOC 1101 SOC 1102	Introduction to Sociology Social Problems	3 cr 3 cr	THEA 3304	Theatre Management	2 cr			
	Sociological Methods					Business I	Education	
SOC 2206	0	3 cr	Choose ONE	of the following:		Dusiness 1	ducation	
SOC 3301	Classical Social Theory	3 cr	THEA 4400	Theatre Backgrounds I	3 cr	ACCT 2201	Principles of Accounting I	3 cr
Electives sel	ected from:		THEA 4401	Theatre Backgrounds II	3 cr	BED 1102	Intermediate Keyboarding	3 cr
SOC 2207	Social Statistics	3 cr	THEA 4419	Modern European Theatre	3 cr	BED 3310	Microcomputers in	
SOC 2231	Juvenile Delinquency	3 cr	THEA 4420	American Theatre History	3 cr		Business Education	3 cr
SOC 2248	Social Diversity	3 cr	THEA 4420 THEA 4470	Contemporary Theatre	3 cr	BED 3320	Clerical Procedures	3 cr
SOC 3321	Families and American	J (1	111LA 44 /U	contemporary riteaue	J ()	BED 3330	Advanced Technology in	
500 3341		3 or	Tril. 4 T	π·			Business Education	3 cr
SOC 2225	Society Demography and	3 cr	Theatre N	linor		BED 3332	Methods in Business Education	
SOC 3335	Demography and	2 -	THEA 1101	Appreciation of Drama	3 cr	CFS 4470	Consumer Economics	3 cr
SOC 4402	Human Ecology	3 cr	THEA 1111	Stagecraft	3 cr	ECON 2201	Principles of Macroeconomic	
SOC 4403	Contemporary Sociological	2				ECON 2201 ECON 2202	Principles of Microeconomic	
	Theory	3 cr	THEA 2251	Beginning Acting	3 cr	MGT 2261	Legal Environment of	
			THEA 2252	Intermediate Acting	3 cr	17101 4401	Organizations	3 cr
							O1gamzanons	J (I

							1	57
HRD 4401	Foundations of Professional-		ENGL 2267 or 226	Q Survey of		GEOL 4452	Sedimentation Stratigraphy	A cr
11KD 4401	Technical Education	3 cr	ENGL 2207 01 220	British Literature I or II	3 cr	GEOL/HIST/POL		4 (1
HRD 4444	Career Guidance and Special		ENGL 2277 or 227		J 01	0202/11101/1 02	Historical Geography of Idaho	4 cr
	Needs in Professional-Techn			American Literature I or II	3 cr	Plus electives	from the following to	
	Education	3 cr	0	(2 .)			of at least 45 credits:	
HRD 4468	Teaching Cooperative Educa		One genre co	` /		GEOL 1122	Rocks and Stars	3 cr
	and School-to-Work	3 cr		oper-division historical period		GEOL 3314	Earth Materials II	3 cr
Plus two elective	courses approved by advisor	6 cr	Courses	es (excluding lower division	6 cr	GEOL 4403	Principles of GIS	3 cr
CI • 4			composition cour		6 cr	GEOL 4405	Volcanology	3 cr
Chemistr	\mathbf{y}			nust be completed before St		GEOL 4407	GPS Applications in Research	
CHEM 1111,1111	LGeneral Chemistry I, and Lab	5 cr	Teaching Internsh	hip.		GEOL 4409	Remote Sensing	3 cr
	2LGeneral Chemistry II, and Lab					GEOL 4416	Global Environmental Change	
CHEM 1114	Cations and Anions	1 cr	Family ar	ıd Consumer		GEOL 4420 GEOL 4422	Principles of Geochemistry Planetary Geology	3 cr
CHEM 2211 CHEM 2232	Inorganic Chemistry I Quantitative Analysis	2 cr 2 cr	Sciences 1			GEOL 4422	for Teachers	3 cr
CHEM 2232 CHEM 2234	Quantitative Analysis Lab	2 cr		Luucation		GEOL 4430	Principles of Hydrogeology	3 cr
CHEM 3301	Organic Chemistry I	3 cr	CFS 1100	Child and Family Studies		GEOL 4450	Field Geology	6 cr
	4 Organic Chemistry II, and Lab		ana sees	Professions	1 cr	GEOL 4456	Geology of Southern Idaho	2 cr
CHEM 3331	Instrumental Analysis	2 cr	CFS 2203 CFS 2209	The Young Child Early Childhood Environmer	3 cr	GEOL 4458	Geology of North America	3 cr
CHEM 3334	Instrumental Analysis Lab	2 cr	CFS 2229	Textile Products	3 cr	GEOL 4491	Seminar	1 cr
	52 Physical Chemistry	6 cr	CFS 3314	Interior Design and Housing		Other geology ele by advisor	ctives may be applied as appro	oved
CHEM 4400	Practicum in Physical Science			Perspectives	3 cr		es must take GEOL 1110 even if	they
Approved electiv	es in Chemistry	7 cr	CFS 3318	Leadership Issues Seminar	1 cr		b for GEOL 1100 or GEOL .	
C	ingdian and		CFS 3332	Programs in Family and		(GEOL 1100L or	2	
	ication and		ana	Consumer Sciences	3 cr	**(PREREQ or C	OREQ: CHEM 1111)	
Rhetorica	al Studies		CFS 4429	Social and Psychological	2			
MC 1119	Introduction to Mass Media	3 or	CFS 4431	Aspects of Clothing Family Resource	3 cr	Health Ed	lucation	
COMM 2208	Group Communication	3 cr	C13 4431	Management	3 cr			
COMM 3305	Argumentation and Debate		CFS 4435	Relationships Within Familie		Prerequisites	:	
COMM 3355	Nonverbal		CFS 4470	Consumer Economics	3 cr		cher Education Program	
	Communication	3 cr	EDUC 2204	Families, Communities,		Admission to Hea	lth Education Program	
COMM 4437	Rhetorical Theory	3 cr	NITTO 1104	Culture	3 cr	Required Co	urses:	
COMM 4441	Interpersonal Communication	3 cr	NTD 1104 NTD 2204	Foods Meal Management	3 cr 2 cr	HE 2200	Promoting Wellness	3 cr
THEA 1111	Stagecraft I	3 cr	NTD 1139	Consumer Nutrition	2 cr	HE 2221	Introduction to Health	
THEA 1118	Oral Interpretation	3 cr	111111111111111111111111111111111111111	OR	3 61		Education	3 cr
THEA 2251	Beginning Acting	3 cr	NTD 2239	Nutrition	3 cr	HE 3340, 3340L	Fitness and Wellness	
THEA 3331	Materials and Methods for		CFS 4495	Student Teaching: Family		HE 2242	Programs, and Lab	3 cr
	High School Speech Arts	3 cr		and Consumer Sciences 7	-14 cr	HE 3342 HE 3383	Stress and Emotional Health Epidemiology	3 cr
Electives in 4000 Rhetorical Studie)-level Communication and	9 cr	Professional-	Technical Certificatio	n	HE 4410	Behavior Change Theory	5 01
Kiletoricai Studie	es courses	9 (1	Requirement				and Applications	3 cr
Electives (4	credits) selected from:		HRD 4401	Foundations of		HE 4420	Program Planning	
THEA 2209	Stage Lighting	2 cr		Professional-Technical		TTE 4420	and Implementation	3 cr
THEA 2214	Makeup Stage Costume Construction	2 cr		Education	3 cr	HE 4430	Curriculum and Methods in Health Education	3 cr
THEA 2221 THEA 3304	Theatre Management	2 cr	HRD 4444	Career Guidance and Specia		HE 4432	Community and Public	5 01
111L/13504	Theatre Management	2 (1		Needs in Professional-Tech			Health	2 cr
English			HRD 4468	Education Teaching Cooperative Educ	3 cr	HE 4435	Health Program Evaluation	
0			11105 4400	and School-to-Work	3 cr		and Research	3 cr
ENGL 2211	Introduction to Literary	2	ъ .			HE 4442	Environmental Health and	2
ENGL 2277 or 222	Analysis 78 Survey of American	3 cr	Recommend			HE 4443	Health Education Substance Abuse and	3 cr
ENGL 2277 OF 227	Literature I or II	3 cr	CFS 3321	Families and American Socie		IIE 4443	Health Education	3 cr
ENGL 2267 or 226	68 Survey of British	J 0.	CFS 3322 CFS 4471	Building Positive Relationship Advanced	DS 3 CF	HE 4445	Human Sexuality and	5 01
	Literature I or II	3 cr	C13 44/1	Consumer Economics	3 cr		Health Education	3 cr
ENGL 2281	Introduction to		CFS 4472	Teaching Consumer Economi		HE 4473	Marketing for Health Care	3 cr
T. 1. C. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	Language Studies	3 cr	CFS 4494	Partnerships		Approved Elective		3 cr
ENGL 3311	Writing and Research About Literature	2			or 6 cr		TOTAL: 4	45 cr
	About Literature							
FNGI 4433*		3 cr	ECON 2202	Principles of Microeconomic	es 3 er	N/E /1	, •	
ENGL 4433* ENGL 4491	Methods: Teaching English	3 cr		•	cs 3 cr	Mathema	tics	
ENGL 4491	Methods: Teaching English Senior Seminar in Literature	3 cr		Principles of Microeconomic at least 45 cr)	es 3 er	Mathema C S 1181	tics Introduction to Computer	
ENGL 4491 One of the fo	Methods: Teaching English Senior Seminar in Literature Dllowing:	3 cr	Geology (at least 45 cr)	es 3 cr	C S 1181	Introduction to Computer Science and Programming I	3 cr
ENGL 4491	Methods: Teaching English Senior Seminar in Literature bllowing: Proseminar in a	3 cr 3 cr	Geology (Required Co	at least 45 cr)		C S 1181 MATH 1170	Introduction to Computer Science and Programming I Calculus I	4 cr
One of the for ENGL 4472	Methods: Teaching English Senior Seminar in Literature bllowing: Proseminar in a Major Literary Figure	3 cr 3 cr	Geology (Required Co	at least 45 cr) urses: ULThe Dynamic Earth, and La		C S 1181 MATH 1170 MATH 1175	Introduction to Computer Science and Programming I Calculus I Calculus II	4 cr 4 cr
ENGL 4491 One of the fo	Methods: Teaching English Senior Seminar in Literature bllowing: Proseminar in a	3 cr 3 cr	Geology (Required Co	at least 45 cr) urses: ULThe Dynamic Earth, and La OR	b 4 cr	C S 1181 MATH 1170 MATH 1175 MATH 2240	Introduction to Computer Science and Programming I Calculus I Calculus II Linear Algebra	4 cr
One of the for ENGL 4472 ENGL 4473	Methods: Teaching English Senior Seminar in Literature bllowing: Proseminar in a Major Literary Figure Chaucer	3 cr 3 cr 3 cr 3 cr	Geology (Required Co	at least 45 cr) urses: DETHE Dynamic Earth, and La OR Physical Geology		C S 1181 MATH 1170 MATH 1175	Introduction to Computer Science and Programming I Calculus I Calculus II	4 cr 4 cr 3 cr 4 cr
ENGL 4491 One of the form the ENGL 4472 ENGL 4473 ENGL 4474 ENGL 4476	Methods: Teaching English Senior Seminar in Literature bllowing: Proseminar in a Major Literary Figure Chaucer Milton Shakespeare	3 cr 3 cr 3 cr 3 cr 3 cr	Geology (Required Co GEOL 1100,1100	at least 45 cr) urses: ULThe Dynamic Earth, and La OR	b 4 cr	C S 1181 MATH 1170 MATH 1175 MATH 2240 MATH 2275	Introduction to Computer Science and Programming I Calculus I Calculus II Linear Algebra Calculus III	4 cr 4 cr 3 cr 4 cr
ENGL 4491 One of the form ENGL 4472 ENGL 4473 ENGL 4474 ENGL 4476 One of the form	Methods: Teaching English Senior Seminar in Literature bllowing: Proseminar in a Major Literary Figure Chaucer Milton Shakespeare bllowing (3 cr):	3 cr 3 cr 3 cr 3 cr 3 cr 3 cr 3 cr	Geology (Required Co GEOL 1100,1100 GEOL 1101 GEOL 1110* GEOL 2202	at least 45 cr) urses: UThe Dynamic Earth, and La OR Physical Geology Physical Geology for Scientists Lab Historical Geology	b 4 cr 3 cr 1 cr 3 cr	C S 1181 MATH 1170 MATH 1175 MATH 2240 MATH 2275 MATH 2287 MATH 3326 MATH 3343	Introduction to Computer Science and Programming I Calculus I Calculus II Linear Algebra Calculus III Foundations of Mathematics Elementary Analysis Modern Geometry I	4 cr 4 cr 3 cr 4 cr 3 cr 3 cr 3 cr 3 cr
ENGL 4491 One of the form ENGL 4472 ENGL 4473 ENGL 4474 ENGL 4476 One of the form ENGL 4481	Methods: Teaching English Senior Seminar in Literature bllowing: Proseminar in a Major Literary Figure Chaucer Milton Shakespeare bllowing (3 cr): Studies in Grammar	3 cr 3 cr 3 cr 3 cr 3 cr 3 cr 3 cr	Geology (Required Co GEOL 1100,1100 GEOL 1110* GEOL 2202 GEOL 2210	at least 45 cr) urses: ULThe Dynamic Earth, and La OR Physical Geology Physical Geology for Scientists Lab Historical Geology Earth in Space and Time	b 4 cr 3 cr 1 cr 3 cr 3 cr 3 cr	C S 1181 MATH 1170 MATH 1175 MATH 2240 MATH 2275 MATH 2287 MATH 3326 MATH 3343 MATH 3352	Introduction to Computer Science and Programming I Calculus I Calculus II Linear Algebra Calculus III Foundations of Mathematics Elementary Analysis Modern Geometry I Introduction to Probability	4 cr 4 cr 3 cr 4 cr 3 cr 3 cr 3 cr 3 cr 3 cr
ENGL 4491 One of the form ENGL 4472 ENGL 4473 ENGL 4474 ENGL 4476 One of the form	Methods: Teaching English Senior Seminar in Literature bllowing: Proseminar in a Major Literary Figure Chaucer Milton Shakespeare bllowing (3 cr):	3 cr 3 cr 3 cr 3 cr 3 cr 3 cr 3 cr	Geology (Required Co GEOL 1100,1100 GEOL 1101 GEOL 1110* GEOL 2202	at least 45 cr) urses: UThe Dynamic Earth, and La OR Physical Geology Physical Geology for Scientists Lab Historical Geology	b 4 cr 3 cr 1 cr 3 cr	C S 1181 MATH 1170 MATH 1175 MATH 2240 MATH 2275 MATH 2287 MATH 3326 MATH 3343	Introduction to Computer Science and Programming I Calculus I Calculus II Linear Algebra Calculus III Foundations of Mathematics Elementary Analysis Modern Geometry I	4 cr 4 cr 3 cr 4 cr 3 cr 3 cr 3 cr 3 cr

Practicum in Geology Teaching 1 cr Environmental Geology 3 cr

4 cr

GEOL/PHYS 4410 Science in American Society 2 cr GEOL 4421 Structural Geology 4 cr

Geobiology and the History of Life Approved upper division mathematics electives

including at least 3 credits at the 4000-level

GEOL 4400

GEOL 4406

GEOL 4431

Plus one additional course from the

World Literature I or II

following: ENGL 2257 or 2258 Survey of

Music Education

See Bachelor of Music Education degree program (below) for requirements.

Physical Education

I my sical L	aucation	
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	
PE 4475	Organization and Administration	n of
	Physical Education and Sport	t3 cr
PE 4494	Adapted Physical Activity	3 cr
Aquatics (consult		1 cr
	TOTAL: 5	
IN ADDITION: 0	Candidate must present a cui	rrent

Red Cross First Aid and CPR Card to advisor at the time of graduation

Social Sciences

HIST 1101

Required prerequisite foundational courses which also satisfy the General Education requirements:

Foundations of Europe

3 cr

3 cr

U S History and Culture	3 cr
Introduction to	
American Government	3 cr
Introduction to Sociology	3 cr
urses	
Principles of Macroeconomics	3 cr
Principles of Microeconomics	3 cr
Economic History	3 cr
Social Science Methods	2 cr
Consumer Economics	3 cr
OR	
Advanced Consumer	
Economics	3 cr
Development of	
Western Civilization	3 cr
U S History for Teachers	3 cr
History of Idaho	3 cr
OR	
North American West	3 cr
Social Diversity	3 cr
Power, Class, and Prestige	3 cr
elected from:	
General Anthropology	3 cr
Peoples and Cultures	
of Old World	3 cr
Peoples and Cultures	
	Introduction to American Government Introduction to Sociology IITSES Principles of Macroeconomics Principles of Microeconomics Economic History Social Science Methods Consumer Economics OR Advanced Consumer Economics Development of Western Civilization U S History for Teachers History of Idaho OR North American West Social Diversity Power, Class, and Prestige Pelected from: General Anthropology Peoples and Cultures of Old World

of New World

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	13 cr

One course from the following:

One course	nom the following.	
SOC 2206	Sociological Methods	3 ct
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 c1
SOC 4450	Developing Societies	3 c1

Theatre

COMM 2208	Group Communication	3	cr
COMM 3305	Argumentation and Debate	3	cr
THEA 1101	Appreciation of Drama	3	cr
THEA 1111	Stagecraft	3	cr
THEA 1191	Theatre Production		
	AND/OR		
THEA 3391	Theatre Production, to total	2	cr
THEA 2211	Drafting	3	cr
THEA 2214	Makeup	2	cr
THEA 2221	Stage Costume Construction	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 3312	Stage Lighting Design	3	cr
	OR		
THEA 4403	Stage Costume Design	3	cr
THEA 3331	Materials and Methods for		
	High School Speech Arts	3	cr
THEA 4455	Beginning Stage Direction	3	cr

Choose 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 4420	American Theatre History	3 cr
THEA 4470	Contemporary Theatre	3 cr

Bachelor of Music Education

The Bachelor of Music Education is a nine-semester degree program designed to prepare candidates to obtain a teaching credential certificate to teach in the elementary and secondary schools. Complete information on admission to the music program, applied music, course sequencing, senior recital, large and small ensemble require-

ments, 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 7-1	4 cr

Basic Music l	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
	ajor Instrument or voice)	7 cr
Large Performing		_
(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 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 2250 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 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. PRE-REQ: 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 preKelementary 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: MATH2256, MATH2257, 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. D

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 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 3321. F, S, Su

EDUC 4424 Assessing Literacy Abilities 3 credits. Methods of assessment in literacy. Introduction to case study, formal and authentic measures of comprehension, vocabulary, study strategies, and writing. PREREQ: EDUC 4419 or permission of instructor. F, Su

EDUC 4426 Remediation of Literacy Problems 3 credits. Teaching strategies for remediating problems in literacy. Emphasis on planning, implementing, and evaluating approaches and materials. PREREQ: EDUC 4424. S, Su

EDUC 4460 Foundations of ESL 3 credits. Study of ESL learner characteristics, historical, philosophical, cultural and linguistic foundations of ESL. Theories of language acquisition and those of leaders in the field will be included. AF

EDUC 4463 ESL Methods 3 credits. Language assessment, planning, and delivery for teaching limited English proficient K-12 students.

Appropriate methods for students at various developmental stages of language acquisition will be studied. PREREQ: EDUC 4460 or permission of instructor. AS

EDUC 4464 ESL Practicum 1 credit. Field experience in settings with English-as-a-second-language learners. COREQ: EDUC 4463 or permission of instructor. AS

EDUC 4470 Manipulative Mathematics 3 credits. Study of methods for teaching mathematics through the modern math approach stressing manipulations. Consideration is given to diagnostic and remedial procedures for exceptional children. D

EDUC 4471 Interpersonal Communications 2 credits. Examination of basic concepts, principles, models, and theories of interpersonal communications and their application to educational settings. D

EDUC 4472 Dynamics of Instructional Groups 2 credits. Theory, practice, and research associated with dynamics of instructional groups are presented in an experiential format with emphasis on formation, structure, and process. D

EDUC 4481 Contemporary Issues in Education 1-3 credits. Examination and analysis of contemporary issues and trends in theories and practices in education. D

EDUC 4482 Contemporary Issues in Education 1-3 credits. Examination and analysis of contemporary issues and trends in theories and practices in education. D

EDUC 4483 Instructional Improvement for Teachers 1-3 credits. Study of ways by which teachers can improve instruction in their own classrooms with emphasis on the findings of research and experiences. D

EDUC 4485 Independent Problems in Education 1-3 credits. Individual work under staff guidance. Field and/or library research on specific educational problems of interest to majors in education. Experience in research composition. 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. PRE-REQ: 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

Department of School Psychology, Literacy, and Special Education

Chair and Professor: Mercaldo Professors: Hedeen, Nunn Associate Professors: Klug, Squires Assistant Professor: 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).

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:

 Candidates will demonstrate an understanding of a wide variety of disability categories and their instructional impli-

- cations, as well as the legal and ethical considerations for educating individuals with disabilities.
- 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.
- Candidates will make instructional decisions based on reliable and valid data that are primarily objective in nature.
- Candidates will demonstrate instruction and behavior management strategies that are proactive and teach new skills, as opposed to being punitive in nature.
- 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):

requirements):			
EDUC 2201	Development and		
	Individual Difference	3 cr	
EDUC 2204	Families, Communities, Culture	e3 cr	
EDUC 3322	Literature for Children		
	Across the Curriculum	3 cr	
PE 3300	Movement Theory		
	and Motor Development	3 cr	
	OR		
PE 4494	Adapted Physical Activity	3 cr	
SPED 3312	Assistive Technology	3 cr	
SPED 3330	The Exceptional Child	3 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 4443	Autism	3 cr	
SPED 4446	Secondary Special Education		
SPED 4490	Consultation and Collaboration		
SPED 4495	Student Teaching Internship 14		
*This is a 7-14 cred	dit course taken for a total of 1-	4	
credits			

Approved Electives (choose 9 credits)

EDUC 2215	Preparing to Teach	
	with Technology	3 cr
SPED 4426	Assessment:	
	Severe Disabilities	3 cr
SPED 4433	The	
	Emotionally Disturbed C	hild 2 cr
SPED 4462	Seminar: Behavior Disord	ders 1 cr
SPED 4480	Seminar in Special Educa	ation
	(to be taken twice)	2 cr
SPED 4481	Advanced Issues	
	in Behavior Disorder	2 cr

SPED 4485	Independent Problems 1	-3 cr
SPED 4498	Advanced Field Work 1	-3 cr
CSED 2205	Introduction	
	to Communication Disorders	s 3 cr
CSED 2227	Basic Sign I	2 cr
CSED 2228	Basic Sign II	2 cr
EDUC 3335	Elementary School Art:	
	Methods and Materials	2 cr
EDUC 4460	Foundations of ESL	3 cr
EDUC 4463	ESL Methods	3 cr
EDUC 4464	ESL Practicum	1 cr
EDUC 4471	Interpersonal Communication	s2 cr
HE 2211	Health Education	
	Methods / Elementary	1 cr
MUSC 2233	Music Methods for	
	Elementary School Teachers	2 cr
PE 3357	Methods for Teaching	
	Elementary Physical Education	1 3 cr
PSYC 2225	Child Development	3 cr
PSYC 3332	Psychology of Adolescence	3 cr
PSYC 4445	Psychology of Learning	3 cr
SOC 2231	Juvenile Delinquency	3 cr

Reading Endorsement

A candidate seeking special education certification as a K-12 Generalist should consult faculty advisors in the Department to learn about adding a reading endorsement.

Minor in Deaf Education*

CSED 1126	Deaf Studies	1 cr
CSED 2205	Introduction to Communicati	on
	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 ci	redits 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: 2	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.

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 thebasics 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: Admission to the Teacher Education Program. COREQ: SPED 4437. F

SPED 4424 Assessment Procedures in Special Education 3 credits. Introductory study of diagnostic assessment techniques and the writing of individual educational and behavioral prescriptions and instructional objectives which are required to provide interventions suitable for remediating the learning problems in basic school curricula. PREREQ: Admission to the Teacher Education Program. F

SPED 4426 Assessment: Severe Disabilities 3 credits. Selection, administration, and interpretation of criterion-referenced tools employed with severely disabled students. Emphasizes functional approach to assessment and evaluation of behavioral and instructional domains. PREREQ: Admission to the Teacher Education Program. D

SPED 4429 Strategies: Severe Disabilities 3 credits. Consideration and evaluation of curriculum materials from behavioral, developmental, and ecological perspectives. Emphasizes functional approach to development and implementation of individualized intervention plans. PREREQ: Admission to the Teacher Education Program. COREQ: SPED 4430 and SPED 4434 F

SPED 4430 Practicum in Individualized Instruction 3 credits. Requires 150 clock hours of field experience working with children with severe disabilities, developing and implementing individual instructional programs. PREREQ: Admission to the Teacher Education Program. COREQ: SPED 4429 and SPED 4434. F

SPED 4432 Direct Instruction Systems 3 credits. Provides mastery level skills training in direct instruction systems for reading, math, and written language. Includes field work, adaptation of curricula to direct instruction model and evaluation. PREREQ: Admission to the Teacher Education Program. COREQ: SPED 4435. S

SPED 4433 The Emotionally Disturbed Child 2 credits. Survey of the causes of emotional disturbance in children and the effects upon the child's school performance and achievement. School programs and treatment considerations will be reviewed. PREREQ: Admission to the Teacher Education Program. D

SPED 4434 Language and Communication Methods in Special Education 3 credits. Strategies for teaching expressive and receptive language skills to children with disabilities. Focus on augmenting oral communication with both low and high technology applications, teaching expressive writing (e.g., spelling) skills using explicit instruction, and teaching receptive vocabulary using explicit instruction. PREREQ: Admission to the Teacher Education Program. COREQ: SPED 4429 and SPED 4430. F

SPED 4435 Practicum in Small Group Instruction 3 credits. Requires 150 clock hours of field experience working with children with disabilities, implementing small group instructional programs in reading and language, as well as developing transition plans for secondary students. PREREQ: Admission to the Teacher Education Program. COREQ: SPED 4432. S

SPED 4436 Math Methods for Children with Disabilities 3 credits. How to teach basic mathematical skills to children with disabilities and other at-risk learners. Emphasis on mathematical techniques having research supporting their effectiveness with children with disabilities. Prospective teachers are taught how to teach, monitor, assess, and remediate various mathematical skills. PREREQ: Admission to the Teacher Education Program. F

SPED 4437 Practicum in Large Group Instruction 3 credits. Requires 150 clock hours

of field experience working with children with disabilities implementing large group instructional programs in mathematics and other content areas, with special emphasis on managing student behavior using positive behavior supports. PREREQ: Admission to the Teacher Education Program. COREQ: SPED 4423. F

SPED 4438 Policies and Procedures in Special Education 3 credits. Consideration of legal background, current court rulings, professional responsibilities, and models for consultation and collaboration in a variety of educational settings. Includes the IEP process. PREREQ: Admission to the Teacher Education Program. S

SPED 4443 Autism 3 credits. An overview of autism and implications for educational planning. Teaching strategies that are successful in working with individuals who have autism will be reviewed. PREREQ: Admission to the Teacher Education Program. F

SPED 4446 Secondary Special Education 3 credits. Teaching methodology focusing on needs of secondary and adult special education students. Topics include functional academics, transition, independent living, social skills, professional-technical training, employment options, and accessing community resources. PREREQ: Admission to the Teacher Education Program. S

SPED 4462 Seminar: Behavior Disorders 1 credit. Topical issues related to the education of children with behavior disorders in a variety of educational and therapeutic settings. PREREQ: Admission to the Teacher Education Program. D

SPED 4480 Seminar in Special Education 1 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: Admission to the Teacher Education Program. D

SPED 4485 Independent Problems 1-3 credits. Individual work under staff guidance. Field and/or library research on specific educational problems of interest to majors in education. Experience in research composition. May be repeated. Graded S/U. PREREQ: Permission of instructor. D

SPED 4490 Consultation and Collaboration 3 credits. This course will provide candidates with strategies for working with paraeducators and other professional colleagues in educational settings. The focus of the course will be on providing training and feedback to paraeducators and effective strategies for teaming with other educators. PREREQ: Admission to the Teacher Education Program. S

SPED 4491 Seminar 1-3 credits. Critical analysis of the literature in one or more areas of education. Limited enrollment. PREREQ: Admission to the Teacher Education Program. May be graded S/U. D

SPED 4495 Special Education: Student Teaching Internship 7-14 credits. Candidates assume instructional and management responsibilities in a supervised K-12 resource room or special education setting. Full semester for 14 credits; half semester 7 credits. 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 education, sport management, and teaching. Majors receive preparation for graduate work in areas such as physical education, physical therapy, exercise science, outdoor education, and athletic administration.

The Department of Sport Science and Physical Education also offers three minor areas of study to facilitate professional and career development needed by women and men to succeed in a changing world. Candidates may choose to minor in coaching, outdoor education, or sport management.

The Department of Sport Science and Physical Education is committed to make the sport and leisure activity program for the major and non-major an experience serving the needs and interests of participants. The activity program is designed to develop participants' skills in lifetime activities and to increase participants' fitness level.

The Department of Sport Science and Physical Education also offers a Master of Physical Education degree with an emphasis in Athletic Administration. The program is designed to facilitate the intellectual and practical knowledge necessary to enter the field of sport management or administration upon graduation.

Bachelor of Arts or Bachelor of Science in Physical Education

Physical Education Standards

The Physical Education Learning Goals are aligned with 2 sets of standards: The Idaho State University College of Education Core Standards (described previously), and the Content Standards in Physical Education of the National Association for Sport and Physical Education (NASPE).

Admission to Program

Admission to a major in physical education or any of the minors available in the department should be done as early as possible during the candidate's career. Admission to the PE major is dependent upon completion of PE 2223 with a grade of C (2.0) or better, and a minimum cumulative GPA of 2.5.

- 1. Completion of 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).
- 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.

- 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	5 (1
PE 2243	Education and Sport Anatomical Foundations	3 cr
	of Human Activity	3 cr
PE 4454	Senior Capstone	3 cr

Physical Education Emphasis Areas:

Exercise Science Physical Education Teaching Outdoor Education Sport Management

Exercise Science Emphasis – 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, 3301I	Anatomy and Physiology,	
	and Lab	4 cı
BIOL 3302, 3302I	Anatomy and Physiology,	
	and Lab	4 cı
BIOL 4460	Neuroscience	4 cı

Chemistry Cognate: 9 credits

CHEM 1111,1111LGeneral Chemistry I, and Lab 5 cr CHEM 1112,1112LGeneral 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 c1
*MATH 1147	Precalculus (5 cr) will substit	ute for
MATH 1143 a	nd 1144.	-

Psychology Cognate: 3 credits

PSYC 1101	Introduction to	
	General Psychology	3 c

Objective #2: To develop specialized knowledge in human movement activities (15 credits)

PE 3300, 3301L	Movement Theory and	
	Motor Development, and L	ab3 cr
PE 3301, 3301L	Physiology of Exercise	
	and Lab	3 cr
PE 3302, 3302L	Biomechanics and Lab	3 cr
PE 3322	Introduction to Sport Psychological	gy3 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 Sc	ience3 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, chose	en with advisor approval	4 cr

Recommended Electives:

HE 3340	Fitness and Wellness Progra	ms3 cr
PSCI 2205	Drugs in Society	2 cr

Physical Education Teaching Emphasis (K-12 certification) – 44 credits, not including credits in Education and the Physical Education Core

Candidates who have completed the required physical education teaching emphasis courses must also obtain K-12 Teacher Certification in Physical Education by completing all requirements in the Teacher Education Program.

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:

- Demonstrates competency in many movement forms and proficiency in a few movement forms;
- Applies movement concepts and principles to the learning and development of motor skills;
- 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;
- Demonstrates responsible personal and social behavior in physical activity settings;
- Demonstrates understanding and respect for differences among people in physical activity settings; and
- 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 S	port3 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

Methods C	omponent: 10 credits	
One (1) aquatics course		1 cr
	Techniques III	3 cr
PE 2237	Activity Performance	
	Techniques II	3 cr
PE 2236	Activity Performance	
	Techniques I	3 cr
PE 2235	Activity Performance	
,	L	

Methods Component: 10 credits

Methous	Component: To creats	
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 Psychological	gy3 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 Administr	ration
	of Physical Education	
	and Sport	3 cr

Objective #4: To understand and develop general pedagogical skills and teacher effectiveness

Required Education Foundation Courses

Refer to College of Education Teacher Education Admission standards and Elementary and/or Secondary Teacher Education course Requirements earlier in this Catalog.

Outdoor Education Emphasis – 37 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 Educa	ition	
	Literature	2 cr	
PE 4445	Methods of Teaching Out	g 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	S
	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
C 1: 1 /	1	45

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.

<u>Criteria for courses</u>: 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)

1 tatal al 1115to	i y Component (o ci cui	13,
BIOL 1101,1101L	Biology I, and Lab	4 c1
BIOL 1102,1102L	Biology II, and Lab	4 cı
BIOL 2209	General Ecology	4 cı
BIOL 2213	Fall Flora	2 cı
BIOL 2214	Spring Flora	2 cı
BIOL 3337	Conservation of	
	Natural Resources	3 c1
BIOL 4426	Herpetology	3 cı
BIOL 4427	Ichthyology	3 c1
BIOL 4438	Ornithology	3 cı
BIOL 4441	Mammalogy	3 c1
BIOL 4489	Field Ecology	3 cı
GEOL 1100,1100L	The Dynamic Earth, and Lab	4 cı
GEOL 1109	Physical Geology for Scientists	s3 c1
GEOL 1110	Physical Geology for Scientists	S
	Laboratory	1 cı
GEOL 2201	Rocks, Rails, and Trails	1 c1
GEOL 2210	Earth in Space and Time	2 cı
GEOL 4456	Geology of Idaho	2 cı
GEOL 4491	Seminar	1 cı
PHYS 1152	Descriptive Astronomy	3 c1
PHYS 1153	Descriptive Astronomy	1 cı
PHYS 3325	Introduction to Weather	
	and Climate	3 cı

Objective #5: To cultivate and refine skills in a variety of outdoor activities.

<u>Criteria for courses:</u> 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 1108 Instructor Training of Adaptive Snowskiing Backpacking Backcountry GPS Navigation PEAC 1165 PEAC 1166 PEAC 1167 PEAC 1175A PEAC 1176A PEAC 1177A PEAC 1177A PEAC 1178A PEAC 1178A PEAC 1178A Intermediate Telemark Instructor Training of Adaptive Snowskiing Backpacking Backpacking Backpacking Backpacking Backpacking Backpacking Beginning Kayaking Beginning Cross-Country Skiing PEAC 1178A Intermediate Telemark	1 1 1 1 1	c c c c c c c c c
Adaptive Snowskiing PEAC 1163 PEAC 1165 PEAC 1166 PEAC 1167 PEAC 1175A PEAC 1175A PEAC 1177A PEAC 1177A PEAC 1177A PEAC 1178A PEAC 1178A PEAC 1178A PEAC 1178B Adaptive Snowskiing Backcountry GPS Navigation Canoeing Kayak Touring Beginning Kayaking Beginning Rock Climbing PEAC 1178A Beginning Cross-Country Skiing PEAC 1178B Intermediate Telemark	1 1 1 1	c c c c
PEAC 1163 PEAC 1165 PEAC 1166 PEAC 1167 PEAC 1175A PEAC 1175A PEAC 1175A PEAC 1175A PEAC 1175A PEAC 1176A PEAC 1177A PEAC 1177A PEAC 1178A PEAC 1178A PEAC 1178A PEAC 1178A PEAC 1178B PEAC 1178B Intermediate Telemark	1 1 1 1	c c c c
PEAC 1165 PEAC 1166 PEAC 1167 PEAC 1175A PEAC 1175A PEAC 1176A PEAC 1177A PEAC 1177A PEAC 1177A PEAC 1178A PEAC 1178B PEAC 1178B PEAC 1178B Backcountry GPS Navigation Canoeing Kayak Touring Peaginning Kayaking Peaginning Rock Climbing Peaginning Cross-Country Skiing PEAC 1178B Intermediate Telemark	1 1 1 1	c c c c
PEAC 1166 Canoeing PEAC 1167 Kayak Touring PEAC 1175A Beginning Kayaking PEAC 1176A Beginning Rock Climbing PEAC 1177A Beginning Cross-Country Skiing PEAC 1178A Beginning Telemark Cross-Country Skiing PEAC 1178B Intermediate Telemark	1 1 1	c c c
PEAC 1167 Kayak Touring PEAC 1175A Beginning Kayaking PEAC 1176A Beginning Rock Climbing PEAC 1177A Beginning Cross-Country Skiing PEAC 1178A Beginning Telemark Cross-Country Skiing PEAC 1178B Intermediate Telemark	1 1 1	c
PEAC 1175A Beginning Kayaking PEAC 1176A Beginning Rock Climbing PEAC 1177A Beginning Cross-Country Skiing PEAC 1178A Beginning Telemark Cross-Country Skiing PEAC 1178B Intermediate Telemark	1	c
PEAC 1176A Beginning Rock Climbing PEAC 1177A Beginning Cross-Country Skiing PEAC 1178A Beginning Telemark Cross-Country Skiing PEAC 1178B Intermediate Telemark	1	c
PEAC 1177A Beginning Cross-Country Skiing PEAC 1178A Beginning Telemark Cross-Country Skiing PEAC 1178B Intermediate Telemark	1	
Cross-Country Skiing PEAC 1178A Beginning Telemark Cross-Country Skiing PEAC 1178B Intermediate Telemark		c
PEAC 1178A Beginning Telemark Cross-Country Skiing PEAC 1178B Intermediate Telemark		c
Cross-Country Skiing PEAC 1178B Intermediate Telemark	1	
PEAC 1178B Intermediate Telemark	1	
	1	c
Cross-Country Skiing		
	1	c
PEAC 1181 Bicycling	1	c
PEAC 1182C Advanced		
Dutch Oven Cooking	1	c
PEAC 1185 Basic Mountaineering	1	c
PEAC 1186B Intermediate Fly Fishing	1	c
	1	c
PEAC 1191B Intermediate Horsemanship	1	c
PEAC 1194 Caving Workshop	1	c
PE 2200 Challenge Course Facilitator 2	2	c
PE 2271 Winter Survival Skills	1	c
PE 2272 Wilderness Survival Skills	1	c
PE 2280 Winter Camping and		
Backcountry Travel	1	c
PE 2281 Practical Outdoor Skills	1	c
PE 2282 Map, Compass and		
Backcountry Navigation	1	c
PE 2284 Intermediate Kayaking		
and Whitewater Safety	1	c
PE 2286 Avalanche and		
Winter Sports Safety	1	c
PE 2287 Snowboard Instructor Training	1	c
PE 2288 Ski Instructor Training	1	c
PE 3381 River Safety and		
Swiftwater Rescue	1	c
PE 3383 Advanced Rock Climbing		
and Climbing Safety	2	c
PE 4491 Physical Education		
Workshop* 1-3	3	c
*When workshop relates to outdoor education,	-	

*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 wellrounded educational background with an emphasis on subjects with historic and traditional importance in the outdoor education field.

<u>Criteria for courses</u>: Courses that fulfill this objective (a) emphasize the expression of ideas through the written and spoken word, (b) provide experience in creative processes, (c) explore environmental issues through the political process.

Electives (Minimum of 6 credits)

Courses may include those listed in the Natural History Component and/or the following:

ENGL 2206	Creative Writing Workshop	3	cr
ENGL 3307	Professional and		
	Technical Writing	3	cr
ENGL 3308	Business Communications	3	cr
COMM 2201	Business and		
	Professional Speaking	3	cr
COMM 2208	Group Communication	3	cr
MC 2230, 2230L	Introduction to Photography,		
	and Lab	3	cr
MC 2241	Introduction to		
	Public Relations	3	cr
MC 2260	Photo and Graphic Design	3	cr
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

Sport Management Emphasis – 43 credits, plus Core

Objective #1: To understand and appreciate the physical education and sport setting.

<u>Criteria for courses</u>: 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 cı
PE 2236	Activity Performance	
	Techniques II	3 cı
PE 2237	Activity Performance	
	Techniques III	3 c1

Additional Coursework (7 credits):

1 I u u i i i i i i i i i i i i i i i i i	Coursemonn (, creates	<i>,</i> •
PE 2281	Practical Outdoor Skills	1 cr
PE 3322	Introduction to Sport Psychological	ogy3 cr
Approved Elec	tives	3 cr

Possible Elective Choices:

PE 3300	Movement Theory	
	and Motor Development	3 cr
PE 3301, 3301L	Physiology of Exercise	
	and Lab	3 c1
PE 3302, 3302L	Biomechanics and Lab	3 c1
PE 3357	Methods of Teaching Eleme	entary
	Physical Education	3 c1
PE 3362	Tests and Measurements in	
	Physical Education	3 c1
PE 3370	Care and Prevention	
	of Athletic Injuries	3 c1
PE 4437	Methods of Teaching	
	Secondary Physical Educati	on3 cr
PE 4493	Introduction to Sport Sociolo	ду 3 ст
PE 4494	Adapted Physical Activity	3 cı

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	tion
	of Physical Education	
	and Sport	3 cr
Approved Elective	S	3 cr

Possible Elective Choices:

I OSSIDIC EICCI	ive Choices.	
PE 3386	Outdoor Leadership	2 cı
POLS 4458	Public Administration Ethics	3 c1
COMM 2201	Business and Professional	
	Speaking	3 c1
COMM 2208	Group Communication	3 c1
COMM 2254	Organizational Communication	3 c1
COMM 3355	Nonverbal Communication	3 c1
COMM 4408	Communication Theory	3 c1
COMM 4452	Conflict Management	3 c1
COMM 4454	Management Communication	3 cı

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 Organization	nal
	Behavior	3 cr
MGT 4473	Human Resource Manageme	ent3 cr
PE 3366	Sport Marketing	3 cr
Approved Elective	S	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	s3 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

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:	

Seitet iiii et	(5) Ci cuitis.	
PE 3300	Movement Theory	
	and Motor Development	3 cr
PE 4475	Organization and Administ	ration
	of Physical Education	
	and Sport	3 cr
PE 4493	Introduction to Sport Sociolo	gy 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 Outo	loor
	Activities and Practicum	3 cr

Outdoor Education Safety Component (5 credits)

Required Course

PE 2283 Leave No Trace Trainer 1 cr

Electives

P

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
E 2282	Map, Compass, and	
	Backcountry Navigation	1 cr
E 2285	Wilderness First Aid	1 cr
E 2286	Avalanche and	
	Winter Sports Safety	1 cr
PE 3381	River Safety and	
	Swiftwater Rescue	1 cr
E 3383	Advanced Rock Climbing	
	and Climbing Safety	2 cr
E 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.)

	-		
BIO	L 1101, 110	1L Biology I, and Lab	4 cr
BIO	L 1102, 110	2L Biology II, and Lab	4 cr
BIO	L 2209	General Ecology	4 cr
BIO	L 2213	Fall Flora	2 cr
BIO	L 2214	Spring Flora	2 cr
BIO	L 3337	Conservation of	
		Natural Resources	3 cr
BIO	L 4426	Herpetology	3 cr
BIO	L 4427	Ichthyology	3 cr

BIOL 4438	Ornithology	3 cr
BIOL 4441	Mammalogy	3 cr
GEOL 1100, 1100I	The Dynamic Earth, and Lab	4 cr
GEOL 1101, 1101I	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	
	•	-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	
PEAC 1166	Canoing	1 cr
PEAC1167	Kayak Touring	1 cr
PEAC 1175A	Beginning Kayaking	1 cr
PEAC 1176A	Beginning Rock Climbing	1 cr
PEAC 1177A	Beginning	
TEME TITTE	Cross-Country Skiing	1 cr
PEAC 1178A	Beginning Telemark	
12.10 11/011	Cross-Country Skiing	1 cr
PEAC 1178B	Intermediate Telemark	1 01
TEME TITOD	Cross-Country Skiing	1 cr
PEAC 1181	Bicycling	1 cr
PEAC 1182C	Advanced	1 01
12.10 11020	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 1191B	Caving Workshop	1 cr
	elates to outdoor education, i.e.	
	White water Dafting Workship	

^{*}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; Manage-

ment 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	y3 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):

(o ci cuits).		
ECON 2201	Principles of Macroeconor	nics 3 cr
ECON 2202	Principles of Microeconor	nics 3 cr
FIN 3315	Corporate Financial	
	Management	3 cr
MGT 2216	Business Statistics	3 cr
MKTG 3325	Basic Marketing Manager	nent3 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 Socio	logy 3 cr
* When workshop	relates to Sport Managem	ent.

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. F
- 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
- PE3301L 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. S, ASu
- PE 3302L Biomechanics Laboratory 0 credit. Biomechanical experiments and testing. COREQ: PE 3302. S, 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 personnel. Topics include safety equipment, river hazards, river crossings, tag line procedures, zip line and Z-pulley use, moving water extrications, and first aid considerations. Su
- PE 3383 Advanced Rock Climbing and Climbing Safety 2 credits. A comprehensive examination of climbing safety—anchor placement, self-rescue, belaying, route protection, case history review, equipment limitations—along with field experience including lead and aid climbing, advanced knots, movement techniques, and minimal impact procedures. PREREQ: PEAC 1176A or permission of instructor. S
- PE 3384 Outdoor Risk Management and Liability 2 credits. Legal implications of outdoor recreation programming including a study oftort 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. F, ASu
- PE 4484 Exercise Assessment and Prescription 3 credits. Design and principles of exercise assessment procedures in physical education and sport setting. Physical Fitness testing concepts and procedures will be covered along with the principles involved when prescribing exercise programs for physical education and sport participants. PREREQ: PE 3301. S, ASu
- PE 4485 Independent Problems in Physical Education 1-3 credits. Individual work under staff guidance. Field and/or library study on specific physical education problems of interest to majors and minors. May be repeated for up to 6 credits. PREREQ: Permission of instructor. F, S, Su
- **PE 4490 Practicum in Physical Education 1-16 credits.** Practical experience in a field-based setting, congruent with candidate's employment goals. May require multiple experiences in a variety of settings outside K-12 school settings. May be repeated for a total of 16 credits. F, S, Su
- **PE 4491 Physical Education Workshop 1-3 credits.** Critical analysis of one or more areas of physical education. May be repeated for up to 6 credits. PREREQ: Permission of instructor. D
- PE 4493 Introduction to Sport Sociology 3 credits. Using the topics of youth, violence, gender, race/ethnicity, social class, media, and politics as a springboard, students will explore issues of social justice and diversity in sport and physical education settings. PREREQ: General Education Goal 1. F, ASu
- PE 4944 Adapted Physical Activity 3 credits. History, philosophy, and the teaching/learning processes in providing adapted physical activity inschools 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 1122D Yoga Sports Conditioning 1 credit. Yoga practice; building and developing strength, balance, flexibility and an appreciation for controlled movement with an emphasis based upon the considerable strength and flexibility in the legs, hips and ankles that are required in sport participation. Physiological self assessments and safety will be covered. F, S
- PEAC 1124 Triathlon Training 1 credit. Participants will work on their swimming, biking, and running skills as well as learn the rules and valuable tips for completing triathlons successfully. Includes physiological self assessments and safety. F, S
- **PEAC 1127 Wrestling 1 credit.** For wrestlers with any experience level, focusing on bringing wrestlers to the highest level of wrestling technique, strategy and training. The wrestlers will learn to wrestle through smart drilling techniques, specialized live wrestling drills and matches. Wrestling technique learned will be folkstyle wrestling. F, S
- **PEAC 1128 Shorin Ryu Karate 1 credit.** Shorin Ryu karate is taught in the traditional Japanese style. The course will explore the movements of the style and how these movements relate to self-defense through the study of Kata (forms). The course will emphasize the building of character, self-discipline, humility, as well as a respect for self and others. F, S
- **PEAC 1129 Shoshin Ryu 1 credit.** Classical martial arts system that blends the most current teaching practices with effective, centuries-old methods of instruction in order to teach students effective self-defense techniques. F, S
- **PEAC 1130 Aquacise 1 credit.** Techniques of water exercises for physical conditioning. Physiological self-assessments and water safety will be covered. F, S
- PEAC 1131D Aerobics: Toning and Conditioning 1 credit. Elementary techniques and modalities of aerobic exercise with an emphasis on toning exercises and cardiovascular conditioning. Includes physiological self assessments and safety. F, S
- PEAC 1131E Aerobics: Boot Camp 1 credit. Elementary techniques and modalities of aerobic exercise incorporating a full body workout that works all major muscle groups with boot camp style drills such as push-ups, jumping jacks, and abdominal exercises. Includes physiological self assessments and safety. F, S
- **PEAC 1131F Aerobics: Core/Fitball 1 credit.** An aerobic style workout that incorporates a balance ball to perform exercises, designed to increase the participant's core strength and stability, flexibility, range of motion, balance, and coordination. Includes physiological self assessments and safety. F, S
- **PEAC 1131G Aerobics: Kickboxing 1 credit.** An aerobic style workout which combines elements of boxing, martial arts, and aerobics

- to provide overall physical conditioning and toning. Includes physiological self assessments and safety. F, ${\bf S}$
- PEAC 1131H Aerobics: Zumba 1 credit. An aerobic style workout that is a fusion of Latin and International music that creates a dynamic, effective fitness system. The routines feature interval training sessions where fast and slow rhythms and resistance training are combined to tone and sculpt your body while burning fat. Includes physiological self assessments and safety. F, S
- PEAC 1131J Aerobics: Nutrition and Weight Management 1 credit. This aerobic/fitness class is designed to introduce students to a wide variety of cardiovascular training modalities, develop a fitness plan, and aid students in gaining the necessary skills to select the foods that promote health and develop a weight management plan. Includes physiological assessments, body composition testing, and safety. F, S
- PEAC 1131KAerobics:Turbo kick® 1 credit. Intense kickboxing moves and dance moves choreographed to high energy music, providing a cardiovascular challenge that blends intense intervals strength/endurance training and cooldown. Includes physiological self assessments and safety. F, S
- **PEAC 1131M Aerobics: Cardio Jam 1 credit.** This course is designed to help students improve their physical fitness through--but is not limited to--kickboxing, yoga, pilates, and other forms of cardiovascular and muscle toning exercises. Includes physiological self assessments and safety. F, S
- PEAC 1131N Aerobics: Cardio Hip Hop 1 credit. A cardiovascular workout that includes the latest hip hop dance moves and routines. Basic moves are built upon to make this class available to everyone from the non-dancer to advanced skill level. Includes physiological self assessments and safety. F, S
- PEAC 1132 Individualized Physical Education 1 credit. Introduction to lifetime fitness programming components with individually-designed programs. Physiological self-assessments, safety, and equipment are covered. F, S
- PEAC 1132A Spinning 1 credit. Fitness class using spinning/stationary bicycles. Develop cardiovascular endurance (aerobic and anaerobic) and muscular strength and endurance. Music is used as a tool to motivate and inspire, as well as establish the pace, rhythm and energy level of the class. F, S, Su
- **PEAC 1133 Jogging/Personal Fitness 1 credit.** Fitness-oriented course, designed for students who wish to maintain or increase their present fitness level. Physiological self-assessments and safety are covered. F, S
- PEAC 1134A Beginning Weight Training 1 credit. Instruction and participation in fundamentals of progressive body-building and conditioning with resistance, including various modalities. Physiological self-assessments and safety will be covered. F, S, Su

- PEAC 1134B Intermediate Weight Training 1 credit. Instruction and participation in fundamentals of progressive body-building and conditioning with resistance, including various modalities. Designed for the intermediate lifter, F, S
- PEAC 1135A Introduction to Hatha Yoga 1 credit. Introduction to yoga philosophy, beginning postures, and techniques of breathing, relaxation, and meditation. Progressive method builds strength, flexibility, and balance, and is adaptable to all ability levels. Special emphasis on proper alignment and diaphragmatic breathing. F, S
- PEAC 1135B Intermediate Hatha Yoga 1 credit. Course builds upon basic skills learned in introductory course, including addition of more challenging postures, advanced breathing and relaxation techniques, while continuing to build flexibility, strength and balance. More attention given to yoga philosophy and meditation. PREREQ: PEAC 1135A OR PERMISSION OF INSTRUCTOR. D
- **PEAC 1136 Targit Fit (TM) Conditioning 1 credit.** Targit Fit (TM) system used for over 1115 different weight room type exercises while learning resistance training. Resistance training options allow students to improve muscular strength, overall cardiovascular endurance and flexibility while improving bone density. F, S
- **PEAC 1137 Marathon Training 1 credit.** Physical, mental and spiritual training principles for beginning runners training to 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 Judo 1 credit.** Principles and philosophies of judo, including the techniques of grappling, throwing and falling. Varying practice methods. Open to all skill levels. F, S
- **PEAC 1143B Intermediate Judo 1 credit.** A continuation of fundamental judo skills and philosophies for intermediate-skilled students, including basics of some advanced skills. F, S
- **PEAC 1143C Advanced Judo 1 credit.** A refinement of fundamental judo skills and philosophies for advanced-skilled students, including advanced techniques of throwing, grappling, and falling. F, S
- **PEAC 1143D Self Defense Judo 1 credit.** Applications of self-defense within the framework of Judo. Open to all skill levels. F, S
- **PEAC 1144 Tae Kwon Do 1 credit.** Presentation of principles and philosophies of Tae Kwon Do, a Korean form of karate meant for energy conservation in self-defense technique. F, S
- **PEAC 1145 Rodeo 1 credit.** An orientation to the safety and techniques of the various events of the modern-day rodeo. F, S
- **PEAC 1146 Archery 1 credit.** Introduction to equipment, technique, and safety practices of archery. D
- PEAC 1146B Archery -- Bowhunter Education 1 credit. Technique, strategy, safety and equipment in the sport of Bowhunter Archery. Bowhunter Education Certification included. F, S
- **PEAC 1147A Beginning Karate 1 credit.** Principles and philosophies of a modified 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 Yangstyle 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 volley ball players. S
- PEAC 1158 Softball 1 credit. Introduction to fundamental skills, and refinement of more advanced skills, for individual and team techniques, strategies, and play in softball. F, S
- **PEAC 1159 Ultimate Frisbee 1 credit.** This course is designed to enhance student skills and abilities in ultimate frisbee. D

- **PEAC 1160A Beginning Skiing 1 credit.** Fundamental techniques, etiquette, training, safety practices and skill practice in downhill skiing for beginners. S
- **PEAC 1160B Intermediate Skiing 1 credit.** For intermediate level skiers, an emphasis on safety practices, etiquette, more advanced techniques, training, and skill practice. S
- **PEAC 1160C Advanced Skiing 1 credit.** Intended for advanced skiers, this course emphasizes high-level skill acquisition, training, safety, ski etiquette, and skill practice. S
- PEAC 1161A Beginning Night Skiing 1 credit. Skill acquisition and safety practices for beginners who wish to ski at night. S
- PEAC 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 1162C Advanced Snowboarding 1 credit. Designed for the advanced snowboarder. A continuation of the intermediate skills and techniques included in the intermediate course. F, S
- **PEAC 1163 Backpacking 1 credit.** Designed for the beginning to advanced backpacker, this course prepares the students for and includes a week long backpacking trip. Includes discussions on navigation, equipment, low impact techniques and food preparation. F, S
- PEAC 1164A Beginning Ice Skating 1 credit. The ice skating course is designed for full participation on ice. Proper techniques are taught for various levels of figure and hockey skaters. S
- PEAC 1165 Backcountry GPS Navigation 1 credit. The practical use of portable GPS devices for outdoor applications. Topics covered include angular 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 sail-boarding, 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 Hockey1 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

of Health Sciences

Division of Health Sciences

Linda C. Hatzenbuehler, Ph.D., Interim Associate Vice President and Executive Dean

Paul S. Cady, Ph.D.,

Dean, College of Pharmacy

Tracy Farnsworth, M.H.S.A., M.B.A., Interim Associate Dean, Kasiska School of Health Professions

Paula Phelps, MHE PA-C, Coordinator, Office of Medical and Oral Health

Tony Seikel, Ph.D.,

Associate Dean, School of Rehabilitation and Communication Sciences

(Vacant) Associate Dean, School of Nursing Linda L. Rankin, Ph.D., Assistant Dean

As the lead health sciences institution in Idaho, the vision of the Division of Health Sciences is to enhance the quality of life for our constituencies by applying the values of excellence in research, partnerships in community service, and professional education into practice.

Idaho State University is Idaho's health care university, as designated by the Idaho State Board of Education, and offers 75 percent of the state's health profession degree programs. One third of Idaho State University's graduates receive degrees in the health professions.

The majority of the University's health profession programs are housed in the Division of Health Sciences. Eighteen health professional programs, including 35 degrees/options make up the Division. Several Division Programs are offered on both the Pocatello and Meridian campuses, and a number of degrees are offered in an online format. Programs partner with hospitals, clinics and specialized medical facilities throughout the nation to provide state-of-the-art training opportunities for our students.

A mix of classroom and clinical experiences ensures that graduates are prepared for licensing exams and positions in a wide range of health care fields. On-campus and statewide clinics provide students with hands-on training. Fourteen in-house clinics include medicine, dentistry, dental hygiene, audiology, speech pathology, counseling, occupational therapy, physical therapy, vestibular (balance), and wellness. Beyond the basic skill sets associated with

clinical practice, we train our students to become leaders in their professions and communities. Doing this requires hiring and retaining nationally recognized faculty, using the most current teaching technologies, and giving students access to the hands-on learning opportunities they need for success.

The Division of Health Sciences is organized into six units:

- College of Pharmacy
- Institute of Rural Health
- Kasiska School of Health Professions
- Office of Medical and Oral Health
- · School of Nursing
- School of Rehabilitation and Communication Sciences

Pre-Health Professions Advising

Idaho State University offers advising for pre-health professional students which prepares them for application to and acceptance by a variety of health professional schools. Health professional programs for which advising is offered include: dentistry, medicine, osteopathic medicine, optometry, podiatric medicine, veterinary medicine, physical therapy, occupational therapy, chiropractic, and physician assistant. For students interested in one of the health professional programs offered at Idaho State University, such as medical laboratory science, counseling, dental hygiene, family medicine, health and nutrition sciences, health care administration, nursing, physical therapy, physician assistant, pharmacy, radiographic science, and speech pathology and audiology, the Pre-health Advisor will refer the students to the appropriate department or college for additional information.

The Pre-health Professions Advising Office is located in the Department of Biological Sciences, Room 202 of the Life Sciences Building (Building #65 on the Idaho State University map). Students who plan to apply to one of the professional schools

listed above should establish and maintain close contact with the Pre-health Advisor throughout their undergraduate program at Idaho State University. The Pre-health Advisor monitors students' progress through their degree programs and the health professional prerequisite courses, provides information about application procedures, and organizes informational meetings, workshops, and speakers on specific health professions. The advisor also chairs the Pre-health Professions Advisory Committee that provides interviews to prepare students for the health professional programs application processes.

Pre-Health Advisor: Becky Connell

Committee Members:

Dr. Ralph Baergen English and Philosophy

Ms. Cynthia Bunde Physician Assistant Studies

Dr. Elizabeth Cartwright Anthropology

Dr. Lyle Castle Chemistry

Dr. Karl DeJesus Chemistry

Dr. Tracy Farnsworth Health Care Administration

Dr. Barbara Frank Biological Sciences

Dr. James Groome Biological Sciences

Dr. Cynthia Hill Economics

Dr. Jeffrey Meldrum Biological Sciences

Dr. Tony Seikel Communication Sciences & Disorders

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	I1 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 prechiropractic 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

of Health

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).

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 preveterinary 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): <u>www.opted.</u> <u>org</u>

Physical Therapy

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

Physician Assistant

- American Academy of Physician Assistants: www.aapa.org
- Physician Assistant Education Association: www.paeaonline.org

Veterinary Medicine

 Association of American Veterinary Medical Colleges (AAVMC): <u>www.</u> <u>aavmc.org</u>

Chiropractic

 Association of Chiropractic Colleges: www.chirocolleges.org

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: Aubrey Research Assistant Professor: Phillipp

Researchers and Grant Coordinators:

Senior Research Associates: Kirkwood, Spearman

Research Associates: Bodily-Roan, Stewart-Burch

Senior Grant Project Coordinator: Green Grant Project Coordinator: Bennett

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 Division of Health Sciences at Idaho State University.

Contacts:

E-mail: irh@isu.edu

Pocatello Office: (208) 282-4436 Meridian Office: (208) 373-1769

College of Pharmacy

Paul S. Cady, Ph.D., Dean Catherine Cashmore, Pharm.D., Interim Associate Dean

Idaho State University's College of Pharmacy is the oldest of the colleges on campus and offers the Doctor of Pharmacy (PharmD) degree. This four-year professional doctorate program can be completed in either Pocatello or Meridian, Idaho. Students may complete their fourth year at our clinical sites in Idaho (Boise, Pocatello, Coeur d'Alene) or at our site in Reno, Nevada.

The Doctor of Pharmacy degree focuses on improving clinical outcomes and improving quality of life. The mission of the College of Pharmacy is to develop caring and highly capable pharmacists who positively impact the health care needs of people in our communities, the state and nation. We are committed to the advancement of the pharmacy profession and the biomedical and pharmaceutical sciences through research, service, and patient-centered care.

Department of Pharmacy Practice and Administrative Sciences

Chair and Associate Professor: Owens
Professors: Adamcik, Cady, Culbertson,
Erramouspe, Force, Lott,
Madaras-Kelly, Mason, Rhodes
Associate Professors: Cashmore,
Gould, Hunt, Liday, Oliphant
Clinical Professor: Jue
Clinical Associate Professor: Heffllinger
Clinical Assistant Professors: Borzadek,
Carr, Casperson, Cleveland, Davis,
Eroschenko, Hachey, Jantz, Pettinger,
Pugmire, Steed, Wadsworth
Adjunct Faculty: Hoagland, Robison,
Stander
Emeriti: Galizia, Hurley, Sharp

Department of Biomedical and Pharmaceutical Sciences

Interim Chair and Professor: Diedrich Assistant Chair and Professor: Bhushan Professors: Crowell, Daniels, Dodson, Lai

Associate Professors: Bigelow, Wilson Assistant Professor: Downing, Yan Emeriti: Cole, Fontenelle, Goettsch, Isaacson

Accreditation

The Doctor of Pharmacy program is accredited by the Accreditation Council for Pharmacy Education (ACPE).

Professional Standards

Students enrolled in the programs of the College of Pharmacy are expected to endorse professional standards by subscribing to the Oath of the Pharmacist. Students are also expected to abide by the American Pharmacists Association's Code of Ethics of the Profession.

Admission to the 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 a cumulative GPA in excess of 3.0 with a class average of 3.6. Fulfillment of the specific requirements does not ensure admission to the Doctor of Pharmacy program. Idaho residents are given preference.

New students are admitted to the Meridian or Pocatello professional program of the college only in the fall semester of each year. All students must be CPR/AED and first-aid certified and demonstrate immunization compliance prior to entering the first professional year. A criminal background check will be required.

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:

- College of Pharmacy application and a \$55 nonrefundable application fee;
- Official transcripts of all previous college course work, including detailed evaluation of all international coursework;
- 3. Three letters of recommendation, one of which must be from a pharmacist.

Evaluation of Students for Admission

Admission to the College of Pharmacy is limited to 70 positions per class. Historically, there have been more applicants than available positions. This requires the faculty to select from among the applicants those who will have the best opportunity to complete the curriculum and have productive professional lives. An invitation to schedule an on-campus interview is based upon the student's academic ability and other required components of the pharmacy school application.

Students with international coursework to be considered with their applications must submit an official detailed evaluation report from an institution that is a member of the National Association of Credential Services Incorporated (NACSI).

International students must meet Idaho State University's admission requirements for international students, which are shown at www.isu.edu/iso/admission.

Upon completion of interviews, applicants are placed into 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:

- 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;
- An official transcript(s) showing that the prepharmacy requirements of Idaho State University have been completed and any pharmacy courses completed thus far;
- 3. A letter to the Associate Dean requesting evaluation of class standing.

Progression Requirements

Students accepted into the professional program of the College of Pharmacy will be permitted to progress to the next semester in the professional curriculum only when all of the required courses of the previous semester have been successfully completed. Successful completion is defined to mean that a grade point average of C (2.0) or better must be maintained in required professional courses, as well as required courses outside the College. In addition, no student shall be allowed (on his or her transcript) more than two D grades in required professional courses both in and outside of the College. Policies adopted within these guidelines are distributed to all students in the professional program.

A student who intends to take a required Idaho State University pharmacy course at another institution must receive written permission from the Associate Dean. This permission must be received prior to enrolling in the course.

Experiential Curriculum

Students must complete 310 hours of the Introductory Pharmacy Practice Experience (IPPE) during the first three years of the program. IPPE must involve practice experiences in community and institutional pharmacy settings as well as supervised direct patient care responsibilities. Fortytwo (42) weeks of the fourth year of the Doctor of Pharmacy curriculum are spent in Advanced Pharmacy Practice Experiences (APPE). This requirement assures that the student becomes competent at applying information and concepts learned in the classroom to the practice of pharmacy. Practice sites are assigned by the College. Site locations currently include southeast, southwest, and northern Idaho, and Reno, Nevada. Decentralization of off-campus programs is a commitment the College has made to provide students with the best possible educational experiences. Students should clearly understand that they may be required to complete at least part of their last year at a site other than their home base.

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. A background check is required prior to extern registration. An additional extern registration is required in other states in which a student does any portion of his or her clinical program (except for Indian Health Service sites).

Graduation Requirements

All students graduating from Idaho State University with a Doctor of Pharmacy degree are expected to complete the General Education Requirements as described for the Bachelor of Science degree.

To be eligible for graduation in pharmacy, a student must have earned an average GPA of 2.0 or better on all credits applied toward the minimum graduation requirements of the curriculum. He or she also must have earned an average GPA of 2.0 or better for all required pharmacy courses applied toward graduation. A minimum of 225 semester credits is required for graduation with the Doctor of Pharmacy degree.

Students are responsible for meeting degree requirements in proper sequence. Frequent consultation between student and faculty advisor is encouraged.

Licensure

For graduation with the Doctor of Pharmacy degree, students are required to complete a program of 42 weeks (1,680 hours) of structured practical experiences in pharmacy practice environments administered by the College. 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 1112,1112I	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 Educ	ation Requirements:	
	English Composition	3 cr
ENGL 1102	Critical Reading and Writing	3 cr
	(Goal 1)	
COMM 1101	Principles of Speech	3 cr
	(Goal 2)	
Other General Edu	cation requirements for the	
Bachelor of Science	e degree 1	5 cr
3 of the 15 credit	s must be in Economics	
(ECON 2201 or 1	ECON 2202)	
Additional recom	mended electives:	
PHIL 2201	Introduction to Logic	3 cr

Professional Curriculum

PHYS 1112

The professional curriculum requires four years of study. The first three years are

General Physics II

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 Merdian, Idaho. Students may complete their fourth year at our clinical sites in Idaho (Meridian, Pocatello, Coeur d'Alene) or at our site in Reno, Nevada.

The first professional year provides a foundation in the basic and pharmaceutical sciences that includes physiology, biochemistry, pharmacology and pharmaceutics. Other courses provide a foundation for professional development that includes topics on ethics, law, drug information, research design, patient care, and the health care system.

Courses and clinical experiences in the second and third professional years build on accrued knowledge and skills. The curriculum centers on an integrated, organ-system approach to the therapeutic management of disease. Topics include cardiovascular, hepatic, hematology/oncology and endocrine. Additional courses provide insight into the human relation aspects of pharmacy, dosage form design, pharmacy management and physical assessment. A series of case studies courses, designed to enhance the student's knowledge base and problem-solving skills while focusing on the application of knowledge to specific patient cases, spans the first three years.

The last 42 weeks, or the fourth professional year, is devoted to full-time clinical experience in various pharmacy practice or, at the student's option, research environments. Students will complete six-week experiences in various areas of practice. Students will also have the option of selecting an elective in an area of interest.

Given the length of the final year of the 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

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PHAR 9911*	Introductory	
	Practice Experience I	1 cr
Fall Semester	i	
BIOL 4449, 4449F	R/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

~pg ~	, , , , , , , , , , , , , , , , , , ,	
BIOL 4456, 4456	6R/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 Pharmaceutics and	
	Calculations	3 cr
PHAR 9942	Introduction to Pharmacy	
	Practice and Literature II	3 cr
	TOTAL:	17 cr

* The requirement for PHAR 9911 is fulfilled for students who provide evidence of completion of online coursework as well as externship in a licensed or public health pharmacy which has been approved by the College of Pharmacy, the State Board of Pharmacy that has authority over the pharmacy and which was supervised by a licensed preceptor. Students must be enrolled in PHAR 9911 and have completed identified components of the course prior to obtaining extern requirements.

Second Professional Year (P-2) Curriculum

Fall Semester

ran Schiester		
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	4 cr
	TOTAL:	15 cr

Spring Semester PHAR 9907 Case Studies in Pharmacy II 2 cr PHAR 9913 Introductory Practice Experience III PHAR 9920 Second Year Recitation PHAR 9945, 9945LPharmacy Practice Management, and Lab

PHAR 9963 Pharmacotherapy III 3 cr PHAR 9964 Pharmacotherapy IV 3 cr PHAR 9965 Pharmacotherapy V 3 cr TOTAL: 16 cr

1 cr

0 cr

4 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, 99	44LSocial and Behavioral M	edicine/
	Pharmaceutical Care, and	Lab 4 cr
PHAR 9966	Pharmacotherapy VI	3 cr
PHAR 9967	Pharmacotherapy VII	3 cr
PHAR 9968	Pharmacotherapy VIII	4 cr
	TOTA	L: 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	3 cr
PHAR 9971	Capstone	
	Pharmacotherapeutics	3 cr
	TOTA	L: 15 cr

Electives

Electives (may be taken in any semester)

Fourth Professional Year (P-4) Curriculum

Full Calendar Year

PHAR 9980	Case Studies in	
	Pharmacy Practice	7 cr
PHAR 9981	Advanced Pharmacy Prac	ctice
	Experiences (APPE)*	42 cr
PHAR 9982	Professional Student	
	Seminar	1 cr
	TOTA	L: 50 cr

Total for Doctor of Pharmacy Degree, including a minimum of 6 Elective credits: *The following experiences are taken as PHAR

9981 Advanced Pharmacy Practice Experiences (APPE):

Ambulatory Care	6 weeks
Advanced Community	6 weeks
Advanced Institutional	6 weeks
Medicine	6 weeks
Pharmaceutical Care Emphasis **	12 weeks
Elective	6 weeks
TOTAL:	42 weeks

**Students are assigned two experiences (each 6 weeks in length) from an approved list of specialty pharmacy practice sites providing a high level of pharmaceutical care. A maximum of 12 weeks of experience is allowed in any specialty practice area.

Advanced Practice Experience Descriptions

Ambulatory Care - Integration of basic pharmacy related concepts to patient care as a member of an interdisciplinary health care team in the ambulatory care setting.

Advanced Community - Emphasizes the distributive, communicative and managerial

aspects of community pharmacy practice. For this experience, students are assigned to selected community pharmacy preceptors.

Drug Information - Structured experience in the practical aspects of the provision of drug information, critical analysis of the medical literature and medical writing.

Geriatrics - Application of pharmaceutical knowledge and skills in the care of geriatric patients and long-term care.

Home Health Care - Emphasizes the clinical, distributive, communicative and managerial aspects of providing a home health care service in the ambulatory patient environment.

Advanced Institutional - Emphasizes the distributive, communicative and managerial aspects of hospital pharmacy practice. For this experience, students are assigned to selected hospital pharmacy preceptors.

Medicine - This experience is designed to integrate the knowledge from previous didactic courses in pharmacology, clinical chemistry and pathophysiology for application encountered in general medicine practice.

Mental Health - Application of pathophysiology and therapeutics to a general psychiatry practice.

Nuclear Pharmacy - Provides practical experience in the compounding and clinical use of radiopharmaceuticals.

Pediatrics - Practical experience in monitoring drug therapy for institutionalized and ambulatory pediatric and neonatal patients.

Pharmaceutical Care - Emphasizes the development, implementation and assessment of pharmaceutical care activities provided in the nontraditional student's work setting.

Research - Provides experience in the conduct of research in the pharmaceutical sciences.

Joint Doctor of Pharmacy/ **Master of Business** Administration

The College of Business and College of Pharmacy at Idaho State University offer a joint Pharm.D./M.B.A. program for students interested in earning both degrees. Students enrolled in the Pharm.D. program may earn an M.B.A. degree with approximately one summer and one year of additional course work.

The program is closely aligned with the Pharm.D. curriculum with the following changes and requirements:

• During the two years of prepharmacy course work, the student should take ECON 2201, ECON 2202, ACCT 2201 and ACCT 2202.

- · During the third professional year in the Pharm.D. program and the summer preceding that year, the student should take MBA 6613, MBA 6614, MBA 6615 and MBA 6616. These courses will satisfy six hours of electives required for the Pharm.D. curriculum. In addition, the completion of MBA 6612 (Human Behavior in Organizations) will substitute for PPRA 9945 (Pharmacy Management) required in the third professional year of the Pharm.D. curriculum.
- · Six hours of specified experiential courses (PHAR 9981) taken in the fourth professional year of the Pharm.D. program will satisfy six elective hours required in the M.B.A. curriculum.
- · Throughout and following the professional Pharm.D. program, the student must complete the second year of the M.B.A. curriculum, which includes MBA 6620, MBA 6621, MBA 6622, MBA 6623, MBA 6624, MBA 6625, MBA 6626 and MBA 6628.
- · Upon completion of all required MBA classes, students may complete the MBA oral exam.

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 120 hours of course work and that those 120 hours are equivalent to an undergraduate degree.

Nontraditional **Doctor of Pharmacy Program**

The Nontraditional Doctor of Pharmacy (NonT) program at Idaho State University is designed for practitioners holding a Bachelor's degree in pharmacy and a valid U.S. or Canadian pharmacy license who desire the opportunity to earn the Pharm.D. degree without returning full-time to a college campus. The curriculum includes 37 credits of didactic course work that is taught using a combination of DVDs, interactive web-based case studies, detailed syllabi and textbooks. Each course has an assigned instructor who is available to students via telephone 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, a writing assessment, and baseline evaluation of clinical skills.

Admissions Process

The application process consists of two phases:

Phase I - Submission of Documents

Students must submit the following documents to the College of Pharmacy at least four months prior to their intended enrollment date:

- 1. Completed application form.
- 2. Designated application fee.
- 3. Official transcripts of all college course work.
- 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:

- 1. Each student must schedule an on-campus interview. This will allow students to meet members of the faculty with whom they will be interacting throughout their studies, and ask questions about the program. The interview will give faculty members an opportunity to meet each student and learn about their professional achievements and goals.
- During the student's visit to campus, he or she will be asked to complete a writing assessment and a knowledgebase examination designed as a tool to assist both the student and the faculty in evaluating the student's baseline knowledge of clinical pharmacy.

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 Infomatics	1 cr
PDNT 9961	Pharmacotherapy I	3 cr
PDNT 9962	Pharmacotherapy II	3 cr
PDNT 9963	Pharmacotherapy III	2 cr
PDNT 9964	Pharmacotherapy IV	4 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	3 cr
PDNT 9971	Pharmacotherapy XI	
	(Capstone w/recitation)	2 cr
	TOTAL: 3	7 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, 15 hours of CE will

be conferred for the Medicine and Ambulatory Care practice experiences.

Sequence of Study and Time Allowed to Complete a Course

The first three courses may be taken in any order. A suggested sequence for those who have not been in school recently is: PDNT 9938, PDNT 9905 and then PDNT 9918. The first three courses must be completed before the Pharmacotherapy modules are started. These modules must be taken in the sequence in which they are listed.

The NonT program does not function on a traditional semester calendar. Students must register for and complete didactic courses within the 3.5 years allotted.

It is recommended that students complete one credit per month to keep within the 3.5 year deadline; however, students are allowed to advance more quickly. Students will not be allowed to remain in the didactic portion of the program longer than 3.5 years.

The Doctor of Pharmacy degree is conferred three times a year–May, August, and December. Students completing all program requirements before these dates may be supplied with an official letter stating that they have completed the program.

Format of Didactic Instruction

The didactic course work is taught utilizing a combination of DVDs, interactive web-based case studies, detailed syllabi and textbooks suitable for the nontraditional learner. Each course has an assigned instructor who is available to students via telephone or email for questions or assistance. Examinations are administered by a proctor identified by the student and approved by the program. Students must sign a validation sheet before each examination agreeing to abide by an honor code.

To protect the integrity of the program, some graded examinations will not be returned to the student. However, if a student so desires, the exam questions missed will be returned to them via fax, mail, or email with the correct answers indicated.

Criteria for Selection of Nontraditional Pharm.D. Practice Sites and Preceptors

The experiential component of the 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.
- 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.
- 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.
- 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.
- 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:

Elective cour	363.	
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	y2 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 Science	es 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

DIOL/CHEM 4400	Cii Dili	1
	Seminar in Biochemistry	1 cr
CHEM 1111, 1111I	General Chemistry I, and Lab	5 cr
CHEM 1112, 1112I	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, 113***	General Physics I, and Lab	4 cr
PHYS 1112, 1114***	General Physics II, and Lab	4 cr
	Subtotal: 7	73 cr
General Education	Requirements 2	24 cr
	TOTAL: 9	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, 3334Instrumental Analysis, and Lab 4 cr

CHEM 4492

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

Track 3: Physiological Biochemistry (8 cr)

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

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, 3301I	Anatomy and Physiology,	
	and Lab	4 cr
BIOL 3302, 3302I	Anatomy and Physiology	
*	and Lab	4 cr
BIOL 3303, 3303I	Principles of Animal	
*	Physiology, and Lab	4 cr
BIOL 3324, 3324I	Developmental Biology	
, ,	and Lab	4 cr
BIOL 4404, 4404I	Plant Physiology, and Lab	4 cr
	Molecular Biology	
	Laboratory Methods	3 cr
BIOL 4415, 4415L	Human Neurobiology, and La	b5 cr
BIOL 4417	Organic Evolution	3 cr
BIOL 4433, 4433I	Microbial Physiology, and Lal	b 4 cr
BIOL 4434, 4434I	Microbial Diversity, and Lab	4 cr
BIOL 4443	Endocrinology	3 cr
BIOL 4449, 4449F	R / PHAR 949, 949R	
	Human Physiology,	
	and Recitation	4 cr
BIOL 4451, 4451I	Immunology, and Lab	4 cr
BIOL 4456, 4456I	R / PHAR 9956, 9956R	
	Human Physiology II,	
	and Recitation	4 cr
BIOL 4461	Advanced Genetics	3 cr
BIOL 4463, 4463I	Human Pathophysiology,	
	and Lab	4 cr

DIOI 4452 4452	(A 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
BIOL 44/3, 44/3.	LApplied and Environmental	4
DIOI 4455	Microbiology, and Lab	4 cr
BIOL 4475	General Virology	3 cr
BIOL 44 / / or 44 / 8	Bacterial or Animal	
D. C. T. L. C. T.	Virology Laboratory	1 cr
BIOL 4481 and/or	4482 Independent Problems	_
	(max 2 credits)	2 cr
BIOL 4488	Advanced Radiobiology	3 cr
	3 Inorganic Chemistry, and Lab	
CHEM 3311 and/o	or 3312 Introduction to Research	
) 2 cr
	4 Instrumental Analysis, and La	
	6 Synthetic Methods, and Lab	
CHEM 4407*	Inorganic Chemistry II	2 cr
CHEM 4433, 443	7Environmental Chemistry,	
	and Lab	3 cr
CHEM 4453**	Modern Experimental	
	Physical Chemistry**	3 cr
CHEM 4481 and/	or 4482 Independent Problem	S
	(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	e3 cr
*Prerequisites incl	ude CHEM 2211, 2211L, 3351,	and
3352.		
**Prerequisites inc	lude CHEM 3334, 3351, and 33	352.

Prerequisites include CHEM 3334, 3351, and 3352.

Biomedical and **Pharmaceutical Science Courses**

PSCI 2205 Drugs in Society 2 credits. Survey of the response of people to drugs and chemicals. This course is for non-pharmacy majors. F, S

PSCI 3301 Introduction to Pharmacology 3 credits. Overview of basic pharmacological principles and drug classes emphasizing organ systems and mechanisms of action. PREREQ: BIOL 1102, CHEM 1112, and CHEM 1112L. F

PSCI 3308 Drug Discovery 3 credits. Overview of the new drug discovery process including drug screening and the development of targeted therapies. PREREQ: PSCI 3301. 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 PRE-REQ: PSCI 3301. F

PSCI 4414 Women's Health Issues 3 credits. This course will cover medical, pharmaco-

logical 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 physiocochemical 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

PPRA3341 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

PPRA5538 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.

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 pharmaceu-

tical sciences, pathophysiology and therapeutics to drug therapy issues. PREREQ: PHAR 9906. S

PHAR 9908 Case Studies in Pharmacy III 2 credits. Application of principles in pharmaceutical sciences, pathophysiology and therapeutics to drug therapy issues. PREREQ: PHAR 9907. F

PHAR 9910 First Year Recitation 0 credit. Scheduled time to attend professional seminars, course reviews and exams. May be repeated. COREQ: First professional year. D

PHAR 9911 Introductory Pharmacy Practice Experience 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 Pharmacy Practice Experience II 1 credit. A competency-based experiential training in an approved community and institutional pharmacy practice setting to be completed prior to the beginning of the second professional year. Graded S/U. PREREQ: PHAR 9911. COREQ: first professional year. S

PHAR 9913 Introductory Pharmacy Pharmacy Practice Experience III 1 credit. Forty hours of competency-based experiential training in an approved pharmacy practice setting or voluntary service activity to be completed prior to the start of the third professional year. Graded S/U. PREREO: PHAR 9912. S

PHAR 9914 Introductory Pharmacy Pharmacy Practice Experience IV 1 credit. Forty hours of competency-based experiential training in an approved pharmacy practice setting or voluntary service activity to be completed prior to the start of the fourth professional year. Graded S/U. PREREQ: PHAR 9913. S

PHAR 9920 Second Year Recitation 0 credit. Scheduled time to attend professional seminars, course reviews and exams. May be repeated. COREQ: Second Professional Year. D

PHAR 9921 Biological Basis of Drug Actions
I 3 credits. Basic concepts in pharmacology.
PREREQ: First professional year. F

 $\begin{array}{l} PHAR\,9921R\,Biological\,Basis\,of\,Drug\,Actions\\ I\,\,Recitation\,\,0\,\,credits.\,\,F \end{array}$

PHAR 9922 Biological Basis of Drug Actions II 4 credits. Basic concepts in Pharmacology. PREREQ: First professional year. S

 $PHAR\,9922R\,Biological\,Basis\,of\,Drug\,Actions\\ II\,\,Recitation\,\,0\,\,credit.\,\,S$

PHAR 9924 Physiochemical Basis of Drug Action 3 credits. Concepts of physical and chemical properties of drugs and how these properties affect absorption, distribution, metabolism, excretion, and pharmacological actions. PREREQ: First professional year. COREQ: BIOL 4449 and PHAR 9924R. F

PHAR 9924R Physiochemical Basis of Drug Action Recitation 0 credit F

PHAR 9926 Basic 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. F

PHAR 9949R Human Physiology I Recitation 0 credit. ${\bf F}$

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 PHAR 9949. S

PHAR 9956R Human Physiology II Recitation 0 credit. \boldsymbol{S}

PHAR 9961 Pharmacotherapy I 4 credits. An organ-ystem 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 4 credits. An organ-system approach to the therapeutic management of selected disease states with an emphasis on appropriate drug selection, therapeutic drug monitoring, and patient counseling. PREREQ: Second professional year. D

PHAR 9963 Pharmacotherapy III 2 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 4 credits. An organ-system approach to the therapeutic management of selected disease states with an emphasis on appropriate drug selection, therapeutic drug monitoring, and patient counseling. PREREQ: Second professional year. D

PHAR 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 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 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 Community 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

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 4 credits.

An organ-system approach to the therapeutic management of selected disease states with an emphasis on the appropriate selection/monitoring of drug therapy and patient counseling. PREREQ: Enrollment in the Nontraditional Pharm.D. program. F, S, Su

PDNT 9965 Pharmacotherapy V 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 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 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

Kasiska School of Health Professions

Director: Tracy Farnsworth, MHSA, MBA, FACHE

Mission and Goals

The text that follows was taken from the introduction for the former College of Health Professions.

The primary mission of the Kasiska School of Health Professions (KSHP) is to enhance the quality of life of the residents of Idaho and the greater community outside of Idaho through the education of students in the health professions.

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 KSHP 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.

- Scholarly Activity: Facilitating and improving faculty and student research and scholarly activity in the health professions.
- 4. *Community Service*: Facilitating the interaction of KSHP 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 School of Health Professions is organized into several departments and programs which offer programs of professional education leading to Associate of Applied Science degree in Radiographic Science; Bachelor of Arts degree in Health Education; Bachelor of Science degrees in Dietetics, Health Care Administration, Health Education, Radiographic Science, and Medical Laboratory Science; Master of Counseling degrees with majors in Marital, Couple, and Family Counseling, Mental Health Counseling, School Counseling, and Student Affairs Counseling: Master of Public Health; Master of Science degrees in Medical Laboratory Science and in Health Education; and a Doctor of Philosophy in Counselor Education and Counseling. The Dietetic Internship Certificate Program is offered at the postgraduate level. Each curriculum combines a core of liberal arts and professional subjects with clinical experience.

For the purpose of providing opportunities for students to obtain appropriate clinical experience, the Department of Counseling operates the Family Education and Counseling Center.

Outreach programming includes the Master of Counseling degrees in Mental Health Counseling and in Marital, Couple, and Family Counseling; Master of Public Health, and Master of Science in Medical Laboratory Science, all in Meridian.

Department of Counseling

Chair and Professor: 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 erspective 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:

- 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.
- Students will be knowledgeable and skillful in Counseling and Consultation processes.
- Students will be knowledgeable about group development, dynamics, counseling theory, group counseling methods, and group work approaches.
- Students will be knowledgeable and understand career development and related factors.
- Students will understand and be knowledgeable about individual and group approaches to assessment and evaluation.
- Students will be knowledgeable about various research methods and basic statistics.
- 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.
- Students in all majors (Marital, Couple, and Family Counseling, Mental Health 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

Dietetics Program

Director and Clinical Associate Professor: McKnight

Assistant Professors: Blanton, Weeden Clinical Associate Professor: Schneider Clinical Assistant Professor: Grim

Emerita: Dundas

The Dietetics Program offers a baccalaureate degree in dietetics and post-graduate dietetic internships.

The Didactic Program in Dietetics (DPD) is accredited by the 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.

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/orfulfillment 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.
- Program Goal Two: Provide didactic and field experiences for students by continuing cooperative relationships with community, clinical and food service management dietitians, other health care professionals and administrators in order to prepare graduates to work in the current health-care environment and in industry.

Outcome Measures

- a. Students will be assigned learning experiences in a minimum of two different experiential sites for both food service, community courses and one experiential site for medical nutrition therapy courses.
- b. 90% of responding graduates will indicate "satisfactory" or better that the DPD program prepared them for their supervised practice experience and career as a dietitian.
- c. 90% of graduates from this program will receive "satisfactory" ratings or better from their employer or DI director.
- d. 1/3 of DAC members will consist of external constituents and/or preceptors from facilities providing learning experiences to dietetic students
- e. 10% of graduates will achieve advanced level practice or have a leadership role in a professional organization within 5 years of graduation.
- 3. Program Goal Three: Provide recruitment and guidance counseling for high school and college students who are interested in the profession of dietetics, as well as retain and mentor excellent students who are in the program.

Outcome Measures

- a. 90% of students who enter the DPD will complete it within 4 semesters of being admitted to the DPD program.
- b. 75% of all dietetics majors will obtain advising once per year.

c. 90% of responding graduates will indicate "satisfactory" or better score with respect to encouragement, respect, motivation, advising and support provided by the program faculty and preceptors.

Admission Requirements:

- 1. Accumulative GPA of 3.0 or above on a 4.0 scale.
- 2. Completion of required courses listed under pre-dietetics with no course grade lower than a C in any of the following classes: CHEM 1101, 1102, 1103; BIOL 1101, 2221, 2221L, 3301, 3302; ENGL 1101, 1102: and NTD 1104, 2204, 2239.
- 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:

- 1. A completed DPD application form.
- 2. 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.
- 4. A non-refundable application of \$20 (make check payable to the Department of Health and Nutrition Sciences).

5. Put all materials together in one large envelope and send to the address below.

NOTE: Students accepted into the dietetics program must start the hepatitis B series shots and TB screening. This can be done by the Student Health Center, a private physician, or a clinic. Students under 35 must submit proof of updated and acceptable MMR vaccines (Mumps, Measles, and Rubella.)

Applications should be sent to:

Laura McKnight, MPH, RD, LD Director, Didactic Program in Dietetics Dept. of Health and Nutrition Sciences Idaho State University 921 S. 8th Ave. Stop 8117 Pocatello, ID 83209-8117

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 1108	Intermediate 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: Univer	sity General Education Requi	re-
ments Goals 6, 7 o	r 8, 9 or 10A or 10B	

Didactic Program in Dietetics Required Courses

	1	
ACCT 3303	Accounting Concepts	3 cr
ENGL 3307	Professional	
	and Technical Writing	3 cr
MGT 3312	Individual and Organizationa	1
	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 c1
NTD 4461	Nutritional Biochemistry I	3 c1
NTD 4470	Dietetics Senior Seminar	2 cı
NTD 4485	Nutritional Biochemistry II	3 c1

In addition:

Electives to total 120 credits. See advisor regarding class sequencing.

Dietetic Internship (DI) Program

The mission of the ISU Dietetic Internship Program is to provide a supervised postgraduate practical experience that exceeds the performance requirements of the 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 information and instructions can be obtained from the Dietetic Internship website at http://www.isu.edu/hns/dietetics/dietetic-internship-apply.shtml. A \$50 non-refundable fee will be charged for processing applications.

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 8117
Pocatello, ID 83209-8117

Send Meridian Application to:

Idaho State University - Meridian Ruth Schneider, MPH, RD, LD 1311 E Central Dr. Meridian, ID 83642

Required Courses*

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 3301LMedical Nutrition Therapy IILab 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 or BIOL 3302 or HO 1111. F, S

NTD 3360 Nutrition Through the Lifecycle 3 credits. Nutrition in pregnancy, lactation, infancy, childhood, adolescence, adulthood and senior adulthood. Physiological changes during the lifecycle and changing nutrient needs. PRE-REQ: "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. PRE-REQ: NTD 2239, CHEM 1101, CHEM 1102, and CHEM 1103 or higher levels of chemistry including inorganic, organic, and biochemistry. F

NTD 4470 Dietetics Senior Seminar 2 credits. Current issues in food and nutrition. Discussion of research and application to practice. PREREQ: Senior in Dietetics. 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

Program Director and Assistant Professor: Farnsworth

Adjunct Faculty: Axford, Bell, Heldwein, Swanson, Waldron, Wilker

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 Macroeconomic	s 3 cr
Goal 12		
ANTH 1100	General Anthropology OR	3 cr
PSYC 1101	Introduction to	
	General Psychology I	3 cr
	OR	
SOC 1101	Introduction to Sociology	3 cr
Other Required Courses		

ECON 2202 Principles of Microeconomics 3 cr ECON 3303 Health Economics 3 cr MATH 1143 College Algebra 3 cr HE 3383 Epidemiology 3 cr

Business Core	e 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 Managemen	t3 cr

Health Care Administration Core Requirements

Requirements	5	
HCA 1115	U S Health System	3 cr
HCA 2215	Healthcare Leadership	3 cr
HCA 3330	Health Information Systems	3 cr
HCA 3340	Healthcare Policy	3 cr
HCA 3384	Human Resource Managemen	nt
	in Health Care Organizations	3 cr
HCA 4453	Healthcare Finance	3 cr
HCA 4465	Ambulatory, Acute, and	
	Long Term Care Management	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

Elective courses

The student is required to select 47 semester hours of goal and elective courses. Elective courses should be selected according to the student's interests and career needs, in consultation 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: 120.

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:

	00415651	
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: 3	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 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 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

HCA3340 Healthcare Policy 3 credits. Investigate the formulation of healthcare priorities, the development of legislation, the implementation of legislative provisions through administrative action, and the modification of health policy within the context of the provision of services. Included is an examination of insurance and reimbursement practiced in today's healthcare industry, their history, current status, and their future. F

HCA 3350 Organizational Behavior in Healthcare 3 credits. Study of individual and group behavior in HCOs. Topics include social responsibility and ethics; decision making; motivation; leadership; communication; power, politics and stress; organizational culture, change and development. S

HCA3384 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 or their equivalents. S

HCA 4465 Ambulatory, Acute, and Long Term Care Management 3 credits. The application of managerial concepts and practices to various healthcare organizations. Includes governance, leadership, strategy, marketing, IT, business operations, HR in various healthcare settings of hospital, physician practice, clinic, and long term care management. S

HCA 4473 Marketing for Healthcare Organizations 3 credits. Introduction to basic marketing management issues as they pertain to healthcare. Current marketing trends in the

health care marketplace. Consumer orientation, health care marketing plans, and strategy development. Cross-listed as HE 4473. 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. An internship is required for successful completion of this program. HCA students typically complete the internship in the summer between the junior and senior year. During the internship experience, students work in a health or human services organization, performing various duties and being exposed to various aspects of managerial careers in health services management.* PREREQ: HCA major or graduate status. Su

*Some facilities may require a background check. When required, this check will be conducted at the student's expense.

Health Education Program

Director and Professor: McAleese Professor: Rankin

Assistant Professors: Batacan, Blanton,

Olsen

Director, Wellness Center: Salazar Emeriti: Kearns, Kritsky, Morris

There is little doubt in today's world that health promotion/disease prevention strategies are on nearly every national health care agenda. As a society, we have learned that a fuller measure of health, a better quality of life, is within the grasp of almost all people. The lifestyle choices a person makes today may influence that individual's health forever.

Bachelor of Arts or Bachelor of Science in Health Education

The undergraduate program in health education is designed to prepare students to teach preventive health strategies. More specifically, they learn to facilitate the voluntary adoption of actions which are conducive to the health of individuals, groups, or communities.

Graduates with a baccalaureate degree in health education are eligible to take the Certified Health Education Specialist (CHES) national certification offered through NCHEC. According to NCHEC, the benefits of the CHES designation include: establishes a national standard, attests to the individual's knowledge and skills, assist employers in identifying qualified health education practitioners, develops a sense of pride and accomplishment, and promotes continued professional development. The undergraduate school health emphasis is accredited by The National Council for Accreditation of Teachers (NCATE).

Students in the Health Education Program may choose from three emphasis or options: 1) school health emphasis. 2) community/worksite health emphasis, or 3) addiction studies option. Teaching and non-teaching minors are available. Graduate degrees are offered through a Master of Health Education (M.H.E.) and a Master of Public Health (M.P.H.).

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

- Access existing and collect healthrelated 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
 - 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
- 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.
- Completion of or concurrent enrollment in the following courses with a "C" grade or better:

BIOL 1101, 1101I	Biology I, and Lab	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

 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

 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 La	b3 cr
ENGL 3307	Professional	
	and Technical Writing	3 cr
NTD 1139	Consumer Nutrition	3 cr
	OR	
NTD 2239	Nutrition	3 cr

- 3. Completion of the Health Education Major Core Requirements (21 credits).
- 4. Completion of the courses from one of the two emphasis areas listed below. Students selecting the school health emphasis should complete coursework toward a teaching minor or second teaching major. In addition, students wishing to teach must also complete all College of Education course requirements.

5. Completion of elective courses. Elective courses should be selected according to the student's interests and career needs, in conjunction with a faculty advisor. The total number of elective credit hours may include course prerequisites for general education requirements and is dependent on the health education major emphasis area selected.

In Addition:

Credits earned in a health education course with a grade of lower than a "C" will not be counted toward graduation for a health education major. The student must present a current first aid and CPR card to her/his advisor.

Health Education Major Core Requirements (21 credits)

requirements	s (21 cicuits)	
HE 2200	Promoting Wellness	3 c
HE 2221	Introduction to Health	
	Education	3 c
HE 3340, 3340L	Fitness and Wellness	
	Programs, and Lab	3 c
HE 3342	Stress and Emotional Health	3 c
HE 4410	Behavior Change Theory	
	and Application	3 c
HE 4420	Health Program Planning	
	and Implementation	3 c
HE 4435	Health Program Evaluation	
	and Research	3 c

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	n3 cr
HE 4443	Substance Abuse	
	and Health Education	3 cr
HE 4473	Health Program Marketing	3 cr
HE 4490	Practicum—Health Education	n
	8, 12, or 1	l6 cr
HCA 3350	Organizational Behavior	
	in Healthcare	3 cr
	OR	
MGT 3312	Individual	
	and Organizational Behavior	3 cr
HCA 3384	Human Resource Manageme	nt
	in Healthcare Organizations	3 cr
4.7.6	c 1: 1 07777	

^{*}Must also complete 6 credit hours of HE 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 Healt	h3 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 Educatio	n
	8, 12, or	16 cr
HCA 3350	Organizational Behavior	
	and Health Care	3 cr
	OR	
MGT 3312	Individual	
	and Organizational Behavior	3 cr
HCA 3384	Human Resource Manageme	nt
	in Healthcare Organizations	3 cr
*Must also comple	ete 6 credit hours of HE cours	es

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:

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r
r

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 cm

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 Prog	rams,
	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:

1 11 0 01	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 2	21 cr

Health Education Nonteaching Minor (21 credits)

Required Courses

required Co	ui scs.	
HE 2200	Promoting Wellness	3 c
HE 2221	Introduction	
	to Health Education	3 c
HE 3340,3340L	Fitness and Wellness Program	ns,
	and Lab	3 c
HE 3342	Stress and Emotional Health	3 c
HE 4410	Behavior Change Theory	
	and Application	3 c
HE 4420	Health Program Planning	
	and Implementation	3 c
HE 4435	Health Program Evaluation	
	and Research	3 c

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	s3 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, D

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. D

HE 2232 Helping Theories 3 credits. Provides an introduction to the essential components and techniques of addiction counseling. Students will learn the basic facilitation model, group techniques, counseling theories, issues faced by beginning counselors, and characteristics of the effective counselor. D

HE 2233 Harmful and Illicit Substances 3 credits. This course is designed to introduce students to drug classification systems and specific drugs within each classification. The psychological and physical effects, signs and symptoms of use, abuse, dependency, overdose, and withdrawal. D

HE 2234 Blood Borne Illness 1 credit. Provides a basic understanding of blood borne pathogens/infectious diseases within an addictions framework. Promotes competency and ethical responsibility in assessing client needs in regard to blood borne pathogens/infectious diseases. D

HE 2235 Chemical Dependency and the Family 3 credits. Provides an overview of functional and dysfunctional families, the

impact of chemical dependency on individual and family systems; and treatment modalities and appropriate referral resources. D

HE 2270 Peer Education in Health 2 credits. Covers methods and techniques of presenting health information to college students. Interview required with instructor prior to enrolling. May be repeated to 4 credits. PREREQ: Approval of instructor. F, S

HE 2287 Healthful Cooking 2 credits. Nutritional components of food, food preparation techniques, and recipe selection and development, all from a health perspective. Emphasis on food products that are both healthful and flavorful. PREREQ: NTD 1139 or NTD 2239. S

HE 2290 Alcohol and Drug Awareness II 1 credit. Case studies of active drug users and recovering addicts; in-depth discussion of the family dynamics of drug/alcohol abusers; medical aspects of chemical dependency. 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 D

HE 3311 Case Management of Substance Abuse 3 credits. Provides a basic understanding of case management philosophy and basic case management skills within an addictions framework. Promotes competency and ethical responsibilities. D

HE 3312 Ethics for the Addictions Counselor 3 credits. Provides information regarding ethical and legal issues in the field of chemical dependency counseling. Topics include values and helping relationships, client's rights and counselor responsibilities. D

HE 3313 Practicum for the Chemical Dependency Counselor 3 credits. Practical experience in a field-based setting congruent with the core functions of a chemical dependency counselor including: assessment, counseling, groups, education, and professional responsibility. D

HE 3314 Group Skills for Addiction Counselors 3 credits. Introduces students to group theory and practice as a treatment modality in counseling clients with chemical dependency issues. D

HE 3340 Fitness and Wellness Programs 3 credits. A study of the theory, development, and application of components necessary for providing fitness and wellness programs in a variety of settings. PREREQ: Admission to Program. COREQ: HE 3340L. S, D

 $HE\ 3340L$ Fitness and Wellness Programs Laboratory 0 credits.

HE 3342 Stress and Emotional Health 3 credits. Stress response, causes of stress, and stress management techniques/strategies. Effect of the mind on the body relative to various disease states. Includes the connection between spirituality and health; and emotional health-related topics such as anger, depression and stress, and sleep deprivation. F

HE 3383 Epidemiology 3 credits. The study of the distribution, frequency and determinants of diseases and injuries in human populations with the overall goal of implementing prevention and control programs. PREREQ: MATH 1153 or MGT 2216. F

HE 4401 Issues in Health and Wellness 1-3 credits. Contemporary health and wellness issues emphasizing education interventions and application. Topics may include, but are not limited to, death and dying, computer technology in health, healthy aging, motivation, emergency preparedness, alternative and complementary medicine, international health. May be repeated for up to 6 credits with different content. F, S, Su

HE 4410 Health Behavior Change Theory and Application 3 credits. Provides a basic understanding of the social, emotional, and lifestyle factors related to health behavior. Strategies designed to identify barriers to behavior and to enhance the health of selected populations are examined. PREREQ: Admission to Program. F, D

HE 4420 Health Program Planning and 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 OR COREQ: HE 4410. F, D

HE 4425 Patient Education Skills 2 credits. Foundations and application of organizational and communication skills which promote a positive atmosphere for patient education in clinical and worksite settings. S, D

HE 4430 Curriculum and Methods in Health Education 3 credits. Curriculum planning, implementation, methodology, and evaluative procedures utilized in the school health education setting. Emphasis will be placed on the integration of content and practical experiences. PREREQ: Admission to Program. S

HE 4432 Community and Public Health 3 credits. Aspects of the community that relate to health; identification and analysis of community and public health programs; organizational pattern and functions of voluntary and governmental health agencies; organizing the community for health action; and coordination of community and public health programs. PREREQ OR COREQ: HE 4410. S, D

HE 4435 Health Program Evaluation and Research 3 credits. The application of research and evaluation models for decision-making 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. 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. F, D

HE 4445 Human Sexuality and Health Education 3 credits. Study of the multifaceted nature of human sexuality with an emphasis on school and community-level educational programs. S, D

HE 4473 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. Crosslisted as HCA 4473. S, D

HE 4485 Independent Problems in Health Education 1-3 credits. Individual work under staff guidance. Field and/or library research on specific health education problems of interest to majors and minors. PREREQ: Permission of instructor. May be repeated up to 6 credits. F, S, Su

HE 4490 Practicum - Health Education 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

Medical Laboratory Science Program

Director and Clinical Associate
Professor: Nehr-Kanet
Clinical Associate Professor: Galindo
Assistant Professor: Ma

The student majoring in Medical Laboratory Science (formerly called clinical laboratory science or medical technology) is provided with a broad base of theoretical and practical knowledge, which will qualify him or her either for an immediate career in medical laboratory science or biomedical research or for further education in graduate or professional school. Medical laboratory scientists are vital healthcare detectives, uncovering and providing key medical information from laboratory analyses that assist physicians in patient diagnosis, treatment, as well as in disease monitoring or prevention (maintenance of health). We use sophisticated biomedical

instrumentation and technology, computers, and methods requiring manual dexterity to perform laboratory testing on blood and body fluids. Laboratory testing encompasses such disciplines as clinical chemistry, hematology, immunology, transfusion medicine, microbiology, and molecular biology.

Description of the Program

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

Accreditation

The Idaho State University Medical Laboratory Science program is accredited by:

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

Degree Alternatives

The Medical Laboratory Science Program at Idaho State University offers two degree alternatives at the baccalaureate level:

- 1. B.S. in Medical Laboratory Science
- A second B.S. in Medical Laboratory Science for students who have completed degree requirements in related disciplines from accredited institutions, have all required prerequisites, and complete the Idaho State University program's 38-credit professional block of courses.

Admission Criteria

Admissions are competitive. The deadline for entrance to the Medical Laboratory Science professional block of 38 credits for a start of the fall semester is February 28. At that time, up to 20 students at each location (Meridian and Pocatello campuses) will be selected. The qualified alternates, along with any late applicants, will be evaluated on August 1 for inclusion in the class if additional seats become available. Progression in the program is dependent

upon successful academic progress as determined by Medical Laboratory Science faculty evaluation in December and May of the program year. Application materials, including criteria for selection and progression, are available from the Kasiska School of Health Professions and may be downloaded from the Medical Laboratory Science website (isu.edu/cls). A program of study to permit progression through the Medical Laboratory Science curriculum over two years or online may be arranged with permission of the Program Director.

Medical Laboratory Science Program Prerequisites

Minimum of *16 credits of chemistry* to include: CHEM 1111 General Chemistry, CHEM 1112 General Chemistry and additional credits such as Organic, Biochemistry, Analytical Chemistry, or Instrumental Analysis.

Minimum of *16 credits of biology* to include: Microbiology, Anatomy and Physiology, Immunology, Cell Biology, Genetics and Introduction to Pathobiology OR Human Pathophysiology.

Statistics highly recommended.

Certification as a Medical Laboratory Scientist (formerly Clinical Laboratory Scientist or Medical Technologist)

Certification by a national credentialing examination (Board of Certification) qualifies the graduate to practice as a medical laboratory scientist in hospitals and other practice venues where credentialing is required. Successful completion of the 32 academic credits and a minimum of 6 practicum credits of the Medical Laboratory Science professional block (total 38 credits) will permit the graduate to be eligible to sit for the national credentialing exam in Medical Laboratory Science.

The B.S. degree in Medical Laboratory Science may be awarded with the minimum number of credits in clinical laboratory practicum (1 credit hour) as long as the 120 total credit hour graduation requirement is satisfied. Such a degree could be of interest to students preparing for Medical Laboratory Science related careers but not for employment in hospitals as medical/clinical laboratory scientists (medical technologists) where certification credentials are required.

Students planning to attend other professional schools after completing the degree in Medical Laboratory Science are strongly advised to check the requirements of those professional schools, particularly regarding requirements in Physics, Organic Chemistry and specific course prerequisites. Other professional programs may require different courses or prerequisites than outlined for the B.S. in Medical Laboratory Science.

Professional Block

The Medical Laboratory Science professional block is offered in live lecture/lab classes and via Moodle (course electronic delivery) in both Pocatello and Meridian (with the exception of the Practicum). With permission of the program director, the Medical Laboratory Science professional block may be taken on-line. The clinical laboratory practicum experience is arranged by Idaho State University Medical Laboratory Science faculty through clinical affiliated hospitals and clinic sites throughout Idaho and adjacent states.

Admission to the Medical Laboratory Science courses that make up the professional block is by application to the program.

Bachelor of Science in Medical Laboratory Science

The B.S. in Medical Laboratory Science prepares students as medical/clinical laboratory scientists or medical technologists and for graduate level programs in medical laboratory science or related disciplines. Students develop a strong background in the broad areas of microbiology, molecular biology, chemistry, hematology, transfusion medicine, biotechnology, and their medical and/or clinical applications. Medical Laboratory Science students gain the ability to carry out standard microbiological, molecular, biological and clinical techniques in the laboratory and to participate in research development, planning, and implementation. The B.S. in Medical Laboratory Science prepares students to have a reasonable expectation of passing a national qualifying exam for the medical laboratory profession and

prepares students to be qualified to work at the professional experience level in a variety of settings. The General Education and Total University Credit Requirements must be met. See General Education Goals for a B.S. degree. A minimum of 120 credits are required for graduation; 36 of these must be upper division credits.

A student may be awarded a B.S. degree in Medical Laboratory Science by fulfilling the following requirements:

A minimum of 120 semester credit hours to include:

- 1. Completion of the University general education requirements (see Academic Information and Graduation Requirements). The following goal courses also satisfy specific program requirements:
 - Goal 3: MATH 1153 Introduction to Statistics
 - Goal 4: BIOL 1101,1101L Biology I, and Lab
 - Goal 5: CHEM 1111, 1111L, and CHEM 1112, 1112L plus additional chemistry courses to total a minimum of 16 credits and may include inorganic/organic/biochemistry/analytical chemistry
- 2. Completion of the following required courses:

MATH 1143	College Algebra	3 cr
BIOL 2206,2207	Cell Biology, and Lab	4 cr
BIOL 2235,2235L	General Microbiology,	
	and Lab	4 cr
BIOL 3301,3301L	, 3302 3302L	
	Anatomy and Physiology,	
	and Labs	8 cr
BIOL 3358	Genetics	3 cr
BIOL 4451	Immunology	3 cr
BIOL 4463	Pathophysiology	4 cr
	OR	
BIOL 3305	Introduction to Pathobiology	3 cr

- 3. Completion of the Medical Laboratory Science Professional degree Requirements (38 credits).
- 4. Completion of elective courses. Elective courses should be selected according to the student's interests and career needs, in conjunction with a faculty advisor. The total number of elective credit hours may include course prerequisites for general education requirements.
- 5. Credits earned in the required prerequisites or Medical Laboratory Science professional block with a grade of lower than a "C-" will not be counted towards the Medical Laboratory Science requirement, but will be calculated in the total credit calculation toward graduation.

A minimum of 120 credits is required for graduation. Students who have completed

the requirements for a B.S. degree in a related discipline at an accredited university, with preparation similar to that described above for the B.S. in Medical Laboratory Science degree may apply to the program and, if accepted, complete the Medical Laboratory Science Professional Block, which would result in the award of a second B.S. degree. Completion of the minimum of a B.S degree and the professional block will qualify the student to sit for national certification exams. Credit may be given for experience and coursework at the discretion of the Medical Laboratory Science program director. Students whose preparation does not include the required courses listed under the B.S. in Medical Laboratory Science may be required to take additional courses outside the professional block at the discretion of the Medical Laboratory Science program director. University policy requires a minimum of 32 additional credits earned beyond the first B.S. degree in order to award a second B.S. degree. Credits used to satisfy the requirements for the first degree may not be used toward the second degree's 32 credit requirement.

Required Courses:

CLS 4410	Phlebotomy Practicum	1 cr
CLS 4412	Urinalysis and Body Fluids	1 cr
CLS 4414	Hematology and Hemostasi	is 1 cr
CLS 4416	Medical Microbiology I	3 cr
CLS 4418	Medical Chemistry	
	and Instrumentation	3 cr
CLS 4420	Medical Immunology	2 cr
CLS 4422	Basic Concepts	
	Transfusion Medicine	2 cr
CLS 4424	Medical Laboratory	
	Fundamentals	1 cr
CLS 4431	Medical Microbiology II	3 cr
CLS 4433	CLS Management	
	and Education	2 cr
CLS 4435	Molecular Diagnostics	3 cr
CLS 4437	Critical Analysis	
	of Lab Information	3 cr
CLS 4439	Advanced Concepts	
	in Transfusion Medicine	2 cr
CLS 4441	CLS Research*	1-3 cr
CLS 4455	CLS Student	
	Laboratory Practices	2 cr
CLS 4490	CLS General Site Practicum	1-6 cr
CLS 4491	Microbiology Practicum	2 cr
CLS 4492	Hematology	
	and Urinalysis Practicum	2 cr
CLS 4493	Transfusion	
	(Blood Bank) Practicum	1 cr
CLS 4494	Chemistry and Automation	
	Practicum	1 cr
*This is a	1-credit course that may be taken	for up

*This is a 1-credit course that may be taken for up to 3 credits.

A total of 6 credits of Practicum experiences (minimum of 480 hours) is required to be eligible to take Board of Certification (BOC) national examinations. One (1) credit of Practicum experience (80 hours) is required for a B.S. in Medical Laboratory Science but the graduate will NOT be eligible for BOC national certification.

Medical Laboratory Science Courses

CLS 4410 Phlebotomy Practicum 1 credit. Introduction to the theory and procedures for the practice of phlebotomy and simple laboratory testing. Part of Medical Laboratory Science Core Curriculum, also suited for other health care providers. PREREQ: Acceptance into Medical Laboratory Science Program. F

CLS 4412 Urinalysis and Body Fluids 1 credit. Fundamental principles of urine and body fluid analysis with correlation of laboratory methods and practice. PREREQ: Acceptance into Medical Laboratory Science Program. F

CLS 4414 Hematology and Hemostasis 3 credits. Theoretical and applied aspects of medical hematology and hemostasis with emphasis on recognition and correlation of abnormal laboratory observations with pathological conditions. Graduate students will prepare, conduct, and evaluate case study sessions. PREREQ: Acceptance into Medical Laboratory Science Program. F

CLS 4416 Medical Microbiology I 3 credits. Study and identification of medically important bacteria, viruses, fungi, chlamydiae, rickettsiae, and parasites as applicable to laboratory and infection control settings. Graduate students will prepare, conduct, and evaluate case study sessions. PREREQ: Acceptance into Medical Laboratory Science Program. F

CLS 4418 Medical Chemistry and Instrumentation 3 credits. Theoretical and applied aspects of medical chemistry with emphasis on test development, validation, and use in diagnosis and management of pathological conditions. Graduate students will prepare, conduct and evaluate case study sessions. PREREQ: Acceptance into Medical Laboratory Science Program. F

CLS 4420 Medical Immunology 2 credits. Practical aspects of immunology with emphasis on pathological conditions and laboratory practice. Graduate students will prepare, conduct, and evaluate case study sessions. PREREQ: Acceptance into Medical Laboratory Science Program. F

CLS 4422 Basic Concepts in Transfusion Medicine 2 credits. Practical aspects and theoretical considerations of major blood groups with respect to transfusion therapy. Oral and written project presentation required for graduate credit. PREREQ: Acceptance into Medical Laboratory Science Program. F

CLS 4424 Medical Laboratory Fundamentals 1 credit. Theory and application of basic techniques and instruments used in all areas of medical laboratories. PREREQ: Acceptance into Medical Laboratory Science Program. F

CLS 4431 Medical Microbiology II 3 credits. Advanced topics in medical microbiology, including application of laboratory techniques to the identification and evaluation of medically important pathogens, and correlations with disease states. Graduate students will prepare, conduct and evaluate case study sessions. PRE-REQ: CLS 4416 and acceptance into Medical Laboratory Science Program. S

CLS 4433 Medical Laboratory Science Management and Education 2 credits. Advanced principles of current personnel, financial, regulatory issues, laboratory information systems, management, and education. Student presentations will be required. Students taking the course for graduate credit will prepare, conduct and evaluate a project. PREREQ: Acceptance into Medical Laboratory Science Program. S

CLS 4435 Molecular Diagnostics 3 credits. A comprehensive overview of the fundamental principles of medical molecular diagnostics and use of molecular techniques in the diagnosis of disease. Topics include: nucleic acid structure and function, genetics, DNA chemistry, introduction to nucleic acid isolation, identification and amplification techniques. Graduate students will prepare, conduct, and evaluate case study sessions. PREREQ: Acceptance into Medical Laboratory Science Program. S

CLS 4437 Critical Analysis of Lab Information 3 credits. Evaluation of clinical laboratory values with emphasis on advanced methods, specialized statistics, algorithm building, and clinical correlations. Graduate students will prepare, conduct and evaluate case study sessions. PREREQ: Acceptance into Medical Laboratory Science Program. S

CLS 4439 Advanced Concepts in Transfusion Medicine 3 credits. Advanced topics in Immunohematology. Application of laboratory techniques to the identification and evaluation of antibodies and antigens. Emphasis on transfusion therapy. Graduate students will prepare, conduct and evaluate case study sessions. PRE-REQ: CLS 4422 and acceptance into Medical Laboratory Science Program. S

CLS 4441 CLS Research 1 credit. Individual theory and application of related topics associated with the medical laboratory. PREREQ: Acceptance into Medical Laboratory Science Program. S

CLS 4455 CLS Student Laboratory Practices 2 credits. Directed practice in the advanced tests and techniques in common use in the medical laboratory (including molecular biology, microbiology, hematology, chemistry, blood bank). PREREQ: Acceptance into Medical Laboratory Science Program. S

CLS 4490 General Site Practicum 1-6 credits. Structured medical laboratory experiences as determined by Medical Laboratory Science faculty. PREREQ: Permission of Program Director. Graded S/U. F, S, Su

CLS 4491 Microbiology Practicum 2 credits. Structured medical laboratory experiences as determined by Medical Laboratory Science faculty. PREREQ: Permission of Program Director. Graded S/U. F, S, Su

CLS 4492 Hematology and Urinalysis Practicum 2 credits. Structured medical laboratory experiences as determined by Medical Laboratory Science faculty. PREREQ: Permission of Program Director. Graded S/U. F, S, Su

CLS 4493 Transfusion (Blood Bank) Practicum 1 credit. Structured medical laboratory experiences as determined by Medical Laboratory Science faculty. PREREQ: Permission of Program Director. Graded S/U. F, S, Su

CLS 4494 Chemistry and Automation Practicum 1 credit. Structured medical laboratory experiences as determined by Medical Laboratory Science faculty. PREREQ: Permission of Program Director. Graded S/U. F, S, Su

Department of Radiographic Science

Department Director and 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 pursing 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.
- Community—to help meet the needs of the community in the health care setting by providing competent, quali-

fied, 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 by **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)).
- 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.

Associate of Applied Science in Radiographic Science

The Associate of Applied Science degree program is awarded to students in the Baccalaureate program who have not completed all of the curriculum requirements. This allows the student to take the ARRT exam if the student has not completed all of the preprofessional curriculum, but has completed all of the professional curriculum. The student studies and practices the clinical applications of radiography at the University's energized laboratory and at affiliated hospitals.

The full curriculum is listed below for both the Bachelor and Associate degrees

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 certification administered by the ARRT.

The Radiographic Science program is designed to develop the technical skills and knowledge necessary for the student to satisfactorily function as a radiographer. Learning experiences enable the student to demonstrate competency in the technical aspect of the profession as well as human relations. The program further seeks to develop student interest in the professional societies 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.

PREPROFESSIONAL YEAR I

Associate of Applied Science and Bach-			
elor 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: 3	6 cr	

PREPROFESSIONAL YEAR II

Bachelor of S	cience	
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 Manageme	nt
	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, 1111LGeneral Chemistry I, and Lab 5 cr

ECON 2201*	Principles of Macroeconom	nics
	(Goal 11)	3 cr
ENGL 1102	Critical Reading and Writin	ıg
	(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	r 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

spring semes	iter	
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 c
Fall Semes	ster	
RS 3312	Radiographic Methods III	2 c
RS 3342	Laboratory Practicum III	1 c
RS 4420	Radiologic Facility	
	Organization	
	(B S degree only)	1 c
RS 4450	Alternate Imaging Modaliti	es
	and Radiation Therany	1 c

Introduction to Radiographic

TOTAL: 13 cr

Quality Assurance Applied Radiography IV

Spring Somostor

RS 4460

RS 4489

Spring Semes	ster	
BIOL 3307	Radiobiology	2 c
RS 4430	Radiographic Pathology	2 c
RS 4441	Advanced Radiographic	
	Methods I	1 c
RS 4470	Advanced Radiographic	
	Exposure	2 c
RS 4481	Independent Study (Optional	l) 2 c
RS 4490	Applied Radiography V	6 c
	TOTAL: 13 or	15 c

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 III2 credits. Continuation of 311 emphasizing theory and principles of radiographic examinations of the vertebral column, cranium, and the facial bones. F

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. 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. 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. S

RS 4441 Advanced Radiographic Methods I 1 credit. Advanced methodology, theory and principles of radiographic procedures. Designed to develop proficiency in performance of specialized radiographic examinations. PREREQ: RS 3312 and RS 3342. S

RS 4450 Alternate Imaging Modalities 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. S

RS 4481 Independent Problems in Radiography 1-2 credits. Study of topics in radiography selected by students and faculty. May be repeated to a maximum of 4 credits. D

RS 4488 Applied Radiography III 5 credits. Clinical application of radiographic examinations with emphasis on the 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

cator aimed at the development and improvement of educational skills. Various sections will have different subtitles. Graded S/U. D

School of Nursing

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, Ovitt, Pesnell, Punkoney,
Reiland, Renn
Clinical Instructor: Quiroz

Emeritae: Jacobson, McLaughlin,

McRoberts, Sato

The School of Nursing operates the Senior Health Mobile, and delivers outreach Bachelor of Science and Master of Science programs for registered nurses in Twin Falls and Idaho Falls. 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.

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 ma-

jor 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 requ	ired)

Plus all of the following:

BIOL 1101,	1101L	Biology I,	and Lab	4 cr
BIOL 2221,2	2221L	Introducto	ry Microbiology,	
		and Lab		3 cr
BIOL 3301,	3301L	Anatomy a	and Physiology,	
		and Lab		4 cr

BIOL 3302, 3302I	Anatomy and Physiology,	
	and Lab	4 cr
CHEM 1101	Introduction	
	to General Chemistry	3 cr
	OR	
CHEM 1111, 1111I	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 Prere	equisite Courses:	
BIOL 3305	Introduction to Pathobiology	3 cr
CHEM 1102	Introduction to Organic	
	and Biochemistry	3 cr
CHEM 1103	Introduction to General, Orga	anic,
	and Biochemistry Laboratory	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 alernate 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	
ANTH 2237	1	
	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 108 prerequisite)	3 cr
PSYC 1101	Introduction to General	
	Psychology	3 cr
*Note: ANTH 1100	and SOC 1101 fulfill Goal 12.	thus

*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	Pharmacologyfor Nursing	4 cr
PSYC 2225	Child Development	3 cr
Elective	· ·	2 cr

Required Nursing Courses for Traditional Students

riedaniem i (m. 2002)			
for Traditiona	al 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, 4418I	Leadership and Management,	
	and Lab	5 cr
NURS 4426, 4426I	Community Health Nursing,	
	and Lab	5 cr

Required Nursing Courses for LPNs and RNs Only

and Kins Oni	y
NURS 2203	Health Assessment Practicum3 cr
	(for LPNs only)
	Taken in place of NURS 2263
NURS 3375	Clinical Practicum 2 cr
	(for LPNs only)
	Taken in place of NURS 3371
NURS 4405	Socialization into
	Professional Nursing 1 cr
	(LPNs and returning RNs only)
	Taken in place of NURS 2220
NURS 4424	Leadership in Communities 2 cr
	for Registered Nurses
	(for returning RNs only)
	Taken in place of NURS 4422
NURS 4425	Leadership in Communities for
	Registered Nurses Practicum 3cr
	(Returning RNs only)
	Taken in place of NURS 4423
T	41

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)

rresnman (1a	n 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
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
Т	OTAL 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 1	6 cr

Sophomore (spring semester)

NURS 2200	Health Assessment	3 C1
NURS 2220	Introduction to	
	Professional Nursing	2 c1
NURS 2262	Fundamentals of Nursing	3 cı
NURS 2263	Fundamentals of Nursing Lab	3 c1
PSCI 3315	Pharmacology for Nursing	4 c1
	TOTAL SPRING SEMESTER 1	5 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

NII IDG 4410

Three options exist; please consult your advisor for the best option to fit your schedule.

NURS 4412	Nursing Care of Childbeari	ng
	Families and Women	3 cr
NURS 4413	Nursing Care of Childbeari	ng
	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, 4418	BL Leadership and Manage	ement,
	and Lab	5 cr
NURS 4426, 4426	6L Community Health Nu	arsing,
	and Lab	5 cr
GOAL 6, 7, or 8		
(Choose a differen	nt goal than chosen earlier)	3 cr
PHIL 2230	Bioethics	3 cr
	TOTAL FOR THE YEAR	29 cr
*Curriculum Pati	terns for B.S. Completion ar	nd Ac-

celerated 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. PRE-REQ: MATH 1153 and Junior year professional status or RN licensure. F, S, Su

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. PRE-REQ: 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. PRE-REQ: 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 III 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 4404 Professional Role Expansion 5 credits. A study of nursing theories and philosophy as well as an integration of community, leadership, management, and informatics principles to prepare the Associate Degree to Master of Science nurse to function in the changing health care environment. PREREQ: Admission to the AD-MS Program. S

NURS 4405 Socialization into Professional Nursing 1 credit. 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. F

NURS 4412 Childbearing Families and Women 3 credits. Explores health issues of and nursing care principles for childbearing families and women in the reproductive years. 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 III 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 III 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. D

NURS 4491 Independent Study in Nursing 1-3 credits. Independent study in a specific area of nursing of special interest. PREREQ: Permission of the School of Nursing. F, S

Office of Medical and Oral Health

Coordinator and Associate Professor: Phelps

Department of Dental Hygiene

Co-Chair and Professor: Hodges
Co-Chair and Associate Professor: Calley
Professors: Boyd, Christie, Paarmann
Associate Professor: 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;
- award baccalaureate degrees in the discipline with a vision toward granting graduate degrees;

- contribute to the science of dental hygiene and the advancement of related knowledge through applied qualitative and quantitative research;
- promote the health and well being of the public by providing clinical dental hygiene care and community service;
- participate as an integral, active, and contributing entity of the institution through University service.

Pursuant to the broad philosophy and mission statement above, the Department of Dental Hygiene seeks to positively impact the education of its students and the delivery of dental hygiene services to the public by fulfilling the following interrelated goals:

- Goal 1. To comprehensively prepare dental hygiene graduates who possess the knowledge, values, ethics, and skills to provide optimal dental hygiene care through demonstrated competence as defined by the "Department of Dental Hygiene Competency Document."
- Goal 2. To offer a baccalaureate dental hygiene program sufficient in scope and depth to prepare graduates with a broad general education and high quality professional education that fosters their ability to adapt to the future, provide leadership in dental hygiene, and enroll in graduate level education.
- Goal 3. To create knowledge through faculty research programs that are of sufficient depth to contribute to the art and science of dental hygiene, to dental hygiene practice and to the delivery of improved health care in Idaho and the nation.
- Goal 4. To foster professional behaviors consistent with legal and ethical expectations essential to the dental hygiene profession and the public through professional activities, continuing education programs, and community service.
- Goal 5. To remain responsive to program expansion according to the needs of Idaho and the western region of the United States, as well as to the future of the dental hygiene profession.
- **Goal 6.** To operate and maintain the on-campus clinical facility to provide quality oral health care while fulfilling the program's educational mission.

Program Description

The Department of Dental Hygiene awards a Bachelor of Science degree. Students

apply to the professional curriculum after completing prerequisite courses in science and general education. The professional program is two years in length. Prerequisites can be completed at the institution of the student's choice. The Department of Dental Hygiene has formal articulation agreements with every state college/university in Idaho.

The program is designed to foster student growth, promote development of critical and ethical judgment, and encourage lifelong learning. The curriculum includes didactic, laboratory and clinical instruction sufficient to graduate competent clinicians who are capable of practicing contemporary dental hygiene procedures. Students are educated to clinical competency in both traditional and advanced procedures, with emphasis placed on preventive, therapeutic, and nonsurgical services essential for providing total patient care to the public. As a result, graduates possess an increased understanding of dentistry and dental hygiene, expanded capabilities as members of the oral health team, and greater career mobility. Graduates of the Idaho State University dental hygiene program also are prepared to pursue graduate studies in dental hygiene or related areas. The dental hygiene program is fully accredited by the American Dental Association Commission on Dental Accreditation

Employment Opportunities

Upon completion of the dental hygiene curriculum, graduates are qualified to take the Dental Hygiene National Board Examination and licensure exams in every state, the District of Columbia, Puerto Rico, Canada and abroad. Graduates are eligible for positions in private dental offices, public health programs, school health programs, dental hygiene education and research. In addition, the dental hygiene program provides instruction and experience in advanced procedures to broaden capabilities for clinical practice.

Admission

Formal application for admission to the dental hygiene program must be submitted before January 15 of the year the student wishes to enter. Applicants must have completed prerequisite courses and completed specific requirements for consideration. Application materials must be forwarded to the Department of Dental Hygiene. Applications for the dental hygiene program and information regarding current admission criteria and procedures can be obtained

from the Dental Hygiene website at http:// www isu.edu/departments/dentalhy, or directly from the department. Admission to Idaho State University is a separate procedure and must be completed prior to application to the dental hygiene program. Students must provide verification of current CPR certificates and vaccinations prior to beginning the specified year.

Academic Standards

To enroll in upper division courses with a dental hygiene prefix, students must be accepted for admission to the dental hygiene program. Each student is responsible for completing the required course work in proper sequential order. To be eligible for graduation and progression in the dental hygiene program, the student must have a cumulative grade point average of 2.25. Course work for which the student receives a grade below "C-" (C minus) will not be accepted as fulfilling requirements for the Department of Dental Hygiene. Deviations from these standards must be approved by the department chairperson.

Dental Hygiene Services

Preventive and therapeutic oral health services are provided by licensed dental hygienists and dentists and experienced students in the dental hygiene clinic. Services for the public include oral prophylaxis, x-rays, nonsurgical treatment for periodontal (gum) disease, fluoride treatments, and patient education in the care of the mouth. Selected advanced services are available for full-time Idaho State University students, faculty and staff. Individuals desiring information should inquire about the availability of services with the dental hygiene clinic receptionist.

Master of Science in Dental Hygiene

The graduate program is designed for licensed dental hygienists with baccalaureate degrees. Graduates are prepared for more complex roles in the discipline such as dental hygiene educators, researchers and advanced rural and community oral health practitioners. The program provides an online graduate curriculum with minimal on-campus visitations required.

Graduation Requirements

Prerequisite courses	40-51	cr
(department requirements and general educa-	tion)	
Required dental hygiene courses	67	cr
Other courses (including general education)		

minimum of:	15 cr
Electives	6 cr
	TOTAL: 134 cr

Bachelor of **Science in Dental** Hygiene

Prerequisite Courses (Pre-Dental Hygiene)

BIOL 1101,1101L	Biology I, and Lab (satisfies Goal 4)	4 cr
BIOL 2221 22211	Introductory Microbiology,	
DIOL 2221,2221L	and Lah	4 cr
BIOL 3301 33011	Anatomy and Physiology,	1 01
DIOL 3301,3301L	and Lah	4 cr
BIOI 3302 3302I	Anatomy and Physiology,	7 (1
DIOL 3302,3302L	and Lah	4 cr
CHEM 1101	Introduction to	7 (1
CHEWI 1101	General Chemistry	3 cr
	AND	5 01
CHEM 1102 1103	Introduction to Organic	
CIIEWI 1102,1103	and Biochemistry, and Lab	4 cr
	(satisfies Goal 5)	7 (1
COMM 1101	Principles of Speech	
COMM TIOT	(satisfies Goal 2)	3 cr
DENT 2201	Principles of Dental Hygiene	
ENGL 1101	English Composition	3 cr
ENGL 1101	Critical Reading and Writing	
NTD 2239	Nutrition	3 cr
N1D 2239	OR	3 (1
NTD 3340	Nutrition	
N1D 3340	for Health Professionals	3 cr
MATH 1153	Introduction to Statistics	3 (1
MAIII 1133	(satisfies Goal 3)	3 cr
PSYC 1101	Introduction to General	3 CI
PS1C 1101		
	Psychology	3 cr
SOC 1101	(satisfies Goal 12)	3 CT
SOC 1101	Introduction to Sociology	2 00
IN ADDITION:	(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
DENTE 2200		3 CI
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	_	cr
DENT 4409	Communication and Behavio	r	
	Management in Dentistry	1	cr
DENT 4411	Expanded Functions I	_	cr
DENT 4411C	Expanded Functions I, Clinic	1	cr
DENT 4412	Dental Specialties	-	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		
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 cı

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 in-

terpreting 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. PRE-REQ: 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 nonsurgical 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. COREO: 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 IDEP Director and Adjunct Instructor: Ybarguen

Adjunct Faculty: Nielsen, Pedersen Affiliate Faculty: Bingham, Brady,

Bruce, Chapman, Comstock, DaBell, DiGrazia, Doyle, Duncan, Ellis, Eppich, Ferguson, Frandsen, Hanson, Hopkins, Jepsen, Johnson, Kempers, Leavitt, Matunas, McMinn, McMurray, Meadors, Morrison, Moultin, Nelson, Newton, Peterson, Polson, Porter, 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 Department of Dental Science cooperates with the Creighton University Boyne School of Dentistry and basic science departments at Idaho State University in offering the first year of dental education through the Dental Sciences Department. Students then spend their second, third,

and fourth years at Creighton University in Omaha, Nebraska. The school also administers the Medical Residency Program leading to a certificate in family practice and the Advanced General Dentistry Residency Program leading to a certificate.

The Idaho Dental Education Program is designed to provide residents of Idaho with access to a high quality dental education as if Idaho had its own dental school. The IDEP program is fully accredited as a Satellite Program of Creighton University School of Dentistry by the American Dental Association. The program involves a first year curriculum at Idaho State University in Pocatello, followed by completion of the second through fourth years at Creighton University in Omaha, Nebraska. Students completing the four year program receive the Doctor of Dental Surgery (D.D.S.) degree and are eligible to take the licensure examinations necessary to become practicing dentists. Students may also elect to pursue advanced training through residencies or specialty programs, eventually becoming board certified in one of the recognized dental specialties.

There are eight positions available for Idaho residents. Applicants to the program must have completed the necessary prerequisites in English, Biology, Inorganic Chemistry, Organic Chemistry, Physics and other requirements as outlined on the Department of Dental Sciences' web site (http://www.isu.edu/departments/dentsci/). In addition to fulfilling the minimal prerequisites most students accepted into the program will have a bachelor's degree at the time of entry into IDEP. Occasionally, some exceptional students who have completed the junior level (upper division) of college course work are admitted into the program.

Students are encouraged to work closely with their pre-dental academic advisor in making course selections which fulfill dental school and degree completion requirements.

Formal application for admission to the IDEP program follows the guidelines outlined in the Department of Dental Sciences' web site and 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 require-

ments 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	
2102 1100	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

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

IDEP4426 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

Family Medicine Residency Program

Emeritus Faculty: Rush

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 subspecialities.

For more information, please contact:
Family Medicine Residency Program
465 Memorial Drive
921 S 8th Ave Stop 8357
Pocatello, ID 83209-8357
(208) 282-4504

Internet: www fmed isu.edu E-mail: fammed@fmed isu.edu

Department of Physician Assistant Studies

Program Director and Associate Professor:
Phelps
Medical Director, Meridian: Patmas
Medical Director, Pocatello: D'Souza
Associate Professor: Schroeder
Assistant Professor: Whitaker
Clinical Assistant Professors: Bunnage,
Dickey, Hachey, Martin
Research Assistant Professor: Howlett
Clinical Instructors: Miles, Papa, Smith,
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

School of Rehabilitation and Communication Sciences

Director and Professor: J. Anthony Seikel, Ph.D.

Departments

The School of Rehabilitation and Communication Sciences (SRCS) is composed of 2 departments with 5 programs. The department of Communication Sciences and Disorders (CSD) consists of programs in Audiology, Educational Interpreting, and Speech-Language Pathology. The department of Physical and Occupational Therapy (DPOT) includes programs in Occupational Therapy and in Physical Therapy. The programs within the School reflect the organization found in many rehabilitation facilities, acknowledging the strong relationships found among these disciplines.

Baccalaureate Programs

The School of Rehabilitation and Communication Sciences is home to 2 baccalaureate degrees (BS in Communication Sciences & Disorders; BS in Educational Interpreting), one baccalaureate degree track (pre-professional Occupational

Therapy track through the Bachelor of University Studies degree program), and one Associate's degree (AS in Sign Language Studies).

Department of Communication Sciences and Disorders

Chair and Professor: Kangas Associate Chair and Associate Professor: Johnson

Professors: Seikel, Sorensen Associate Professors: Brockett, Flipsen Assistant Professors: Bargen, Sanford Clinical Professors: Loftin, Whitaker Clinical Associate Professors: Bishop, Guryan, Holst, Knudson, Turner, Wallber, Willer

Clinical Assistant Professors: Ament, Cummings, Humphreys, Melton, O'Donnell, Smith, Stone Clinical Instructor: Miller Visiting Clinical Instructor: Tucker Emeriti: Bain, Schow, Smedley, Weston

Degrees

The Department of Communication Sciences and Disorders offers an Associate of Science Degree in Sign Language Studies, a Bachelor of Science Degree in 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 emphases 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, Division of Health Sciences, Department of Communication Sciences and Disorders.

Admission to Junior Level Classes

Prospective students are expected to have a cumulative GPA of 3.0 or better after completing 40 semester hours before registering for CSED 3321 and/or CSED 3330. Interested students with GPAs above 2.75 may petition the department chair to enroll in junior level courses through a letter and supporting documentation.

Junior Transfer Programs

It is strongly recommended that students interested in the Meridian undergraduate program complete their general education requirements at Boise State University, ACI, or other accredited university before transferring to Idaho State University-Meridian. It is recommended that prospective transfer students complete CSED 2205 in the second semester of their sophomore year. Junior transfer students may complete the requirements for a Bachelor of Science Degree within two years at Idaho State University. January junior transfers may complete the program requirements in two and one half years. Students interested in the undergraduate program at Idaho State University-Meridian should call (208) 373-1706 for additional information.

Preprofessional Coursework

Students with undergraduate degrees in disciplines other than communication sciences and disorders must take a series of courses that are prerequisite to entering the Master's degree program. These courses are delivered in two formats. The traditional Preprofessional Program format involves 13 courses provided through on-campus classroom instruction over the course of two semesters and a summer. The Online Preprofessional Program (OPP) involves delivery of 11 courses via totally online format, designed to provide nontraditional students with a means of acquiring these courses. Note that the online courses require extra fees, and the program is available to individuals seeking degrees at other institutions. The course sequence and specific aspects of the programs may be found on the Communication Science & Disorders, and Education of the Deafhome page at http://www.isu.edu/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 reguirements for the major. All students must meet with their advisors each semester.

Practicum Standards

Students within the department may enroll in limited practicum activities as seniors. Specified departmental course requirements must be met before a student enrolls.

Clinical Services

The Idaho State University Speech-Language and Hearing Clinic on the Pocatello Campus and the Speech and Language Clinic at the ISU Meridian Health Sciences Center offer a variety of clinical training opportunities for students while providing valuable services to the community. Among our audiological services offered at the Pocatello campus are complete audiological and vestibular testing, hearing aid evaluation, auditory training, aural habilitation and rehabilitation, including services for individuals with cochlear implants. The Speech and Language Clinics in Pocatello and Meridian offer evaluation and treatment of speech, language, stuttering, voice, alternative and augmentative communication, and speechlanguage problems associated with cerebral palsy, traumatic brain injury, autism, cleft palate, and stroke. Specialized group therapy is offered for preschool children with communication needs, toddlers and children with cochlear implants, and adults with aphasia. Clients served in our clinics range in age from infancy to adulthood and all clinical services are provided by experienced students under the direction of ASHA certified clinical faculty.

Bachelor of Science in Communication Sciences and Disorders, with **Emphasis in Pre-Audiology or Pre-**Speech-Language **Pathology**

The following courses are required in addition to 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 Dep	oartmental Courses	
CSED 1126	Deaf Studies	1 cr
CSED 2205	Introduction to Communicati	on
	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, 3321I	Clinical Phonology	
	and Phonetics, and Lab	4 cr
CSED 3325	Speech Sound Development	
	and Disorders	3 cr
CSED 3330	Language Science	
	and Development	3 cr
CSED 3341	Audiometry	
	and Hearing Science	3 cr
CSED 4405	Neurological Bases of	
	Communication Disorders	3 cr

CSED 4417	Interdisciplinary	
	Evaluation Team	1 cr
CSED 4435, 443	5L Speech and Hearing S	ciences,
	and Lab	4 cr
CSED 4445	Aural Rehabilitation	3 cr
CSED 4460	Educational Audiology	3 cr
Students may sul	ostitute CSED 1151, 1152, 22	251,
and 2252 (12 cre	edits) for CSED 2227 and 22	28.

Other Required Courses

Other Kequii	cu Courses	
BIOL 1101,1101L	Biology I, and Lab	4 cı
BIOL 3301,3301L	Anatomy and Physiology,	
	and Lab	4 cı
BIOL 3302,3302L	Anatomy and Physiology,	
	and Lab	4 cı
ENGL 3307	Professional and	
	Technical Writing	3 cı
HCA 1110	Introduction to the Allied	
	Health Professions	2 cı
MATH 1153	Introduction to Statistics	3 cı
PSYC 1101	Introduction to	
	General Psychology	3 cı
PSYC 2225	Child Development	3 c1
	OR	
PSYC 3332	Psychology of Adolescence	3 cı
SOC 2248	Social Diversity	3 c1

Recommended Course

ANTH/ENGL 1107Nature of Language 3 ct 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

ricquire o	,	
CSED 2256	Deaf Culture and Comi	munity 3 cr
CSED 3340	Communication Disord	lers
	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 I	Language I,
ar	nd Laboratory	4 cr
CSED 1152, 1152LA	merican Sign Langu	age II,
ar	nd Laboratory	4 cr
CSED 2251, 2251L	American Sign La	anguage III,
ar	nd Laboratory	4 cr
CSED 2252, 2252L	American Sign L	anguage IV,
ar	nd 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, 4415I	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

Students choosing the Emphasis in Pre-Speech-Language Pathology must complete the degree requirements above and the Required Courses listed below.

Required Courses:

CSED 3321L	Clinical Phonetics	
	and Phonology Lab	1 cr
CSED 3325	Speech Sound Development	
	and Disorders	3 cr
CSED 3335	Language Disorders	3 cr
CSED 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 Communicati	on
	Differences and Disorders	3 cr
CSED 2250	Signing Seminar	3 cr
CSED 2250L	Signing Seminar Laboratory	1 cr

CSED 2251 CSED 2251L	American Sign Language III American	3 cr
	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
	OR	
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	e 30 credits listed in the Associ	ciate
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 CSED 4435	Deaf Culture and Community Speech and Hearing Sciences	
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

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, characteristics, 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. $\rm S$

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. PRE-REQ: 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 hearing impaired child. Designed for educational interpreters who plan to work in K-8 educational settings. PREREQ: Permission of instructor. S

CSED 4453 Transliterating I: Voice to Sign 4 credits. Theoretical and practical "handson" 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 4454LTransliterating 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. PRE-REQ: 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 Physical and Occupational Therapy

Chair and Associate Professor: Creelman OT Program Director and Assistant

Professor: Eakman Associate Professor: Devine Assistant Professor: Dye

Clinical Assistant Professors: Alexander, Gee, Jackman, Peterson, Ralphs,

Seiger, Thompson

Adjunct Faculty: Anderson, Meldrum, Rodnick, Owens, Urfer

The Department of Physical and Occupational Therapy offers the Doctor of Physical Therapy (DPT) and the Master of Occupational Therapy graduate degrees for those students wanting to enter the professions of occupational or physical therapy. The programs are three years in length and degrees are granted after successful completion of all academic and clinical requirements. Both graduate degree programs are accredited.

The Physical Therapy Graduate Program is accredited by the Commission on Accreditation of Physical Therapy Education. The Occupational Therapy Graduate Program is accredited by the Accreditation Council for Occupational Therapy Education.

A 3.0 overall GPA for all prerequisite course work and a 3.0 GPA in each 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.
- 3. Exercise Physiology, 2 or 3 credits. This course may be found in Physical Education departments.
- CHEMISTRY (2 courses)
- 1 & 2. Introductory Chemistry with laboratory, 2 semesters or 2-3 quarters. A more recently completed chemistry course at upper division or graduate level with laboratory may also meet this requirement. Must be courses for science majors.

- PHYSICS (2 courses)
- 1 & 2. Introductory Physics with laboratory, 2 semesters or 2-3 quarters. A more recently completed physics course at upper division or graduate level with laboratory may also meet this requirement. Must be courses for science majors.
- MATHEMATICS (1 course)
- 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)
- Introductory Psychology. More recent upper division psychology courses may be accepted.
- Sociology or Anthropology or Health Science or Psychology (1 course). This course must be relevant to health care, rural societies, cultural diversity, aging, health care administration, abnormal psychology or epidemiology. Marriage/ Family, religion or history courses will NOT meet this requirement.
- 3. Course in Human Development or Motor Development Learning (2-3 credits).
- MEDICAL TERMINOLOGY (1 semester)
- 1. One semester of medical terminology.

Computer Competence and Technical Writing

Applicants must be competent in working with computers and be able to use word processing and spreadsheet software prior to entry into the program. A course in technical writing is 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. Occupational therapists also provide services to groups or to populations in order to facilitate health and participation in society.

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 for fall semester entry into the Master of Occupational Therapy (MOT) program through the normal graduate school admissions procedure by satisfactorily completing the prescribed prerequisite courses and satisfying the other admission requirements as listed on the MOT program application form.

Students may also have the option of early pre-professional entry into the program through the established guidelines of the Bachelor of 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 BUS students develop a course of study that will meet their interests, university degree requirements, and Occupational Therapy Program admission requirements. The student may apply to the BUS program after they have 24 earned credit hours. They complete the pre-professional year for occupational therapy during their senior year. With successful completion of the pre-professional year in the OT program, each student will receive a Bachelor of Uni-

versity Studies degree and continue (after acceptance by the Graduate School) directly into the second and third year curriculum for the MOT degree.

The combination of the 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)

Anatomy and Physiology, each with laboratory (vertebrate or human); 2 semesters or 2-3 quarters. This course must have been completed within the last 7 years. Courses on human anatomy and physiology MUST be listed in Biology, Zoology, Anatomy or Physiology Departments for fulfillment of this requirement.

• CHEMISTRY (1 course, 4 credits)

Introductory Chemistry with laboratory, 1 semester. A more advanced chemistry course at upper division or graduate level with laboratory may also meet this requirement. Must be a course for science majors.

MATHEMATICS (1 course)

Statistics - 3 or more units. Courses about research methods or tests and measurements will NOT meet this requirement.

• ENGLISH/COMMUNICATION (2 courses)

Composition - 3 credits

Speech Communication - 2 or 3 credits

Technical Writing (not required, but highly recommended) - 3 credits

• OTHER REQUIRED COURSES

At least 5 courses from this category are required, 3 credits each, chosen from:

- · economics
- history
- education
- humanities

- ethics
- literaturephilosophy
- fine artsforeign language
- Toreign language

• 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	Human Systemic Physiology	5 cr
PTOT 4412	Professional	
	Communication	2 cr
PTOT 4413	Occupational Therapy	
	Profession	3 cr
US 4490	Capstone Project	1 cr

Spring Semester

PTOT 4401	Kinesiology and Biomechanic	s4 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 2209 Introduction to Occupational Therapy 1 credit. Exploration of the diversity of occupational therapy and how occupation or "activity" can be used as an intervention for promoting health and independence in persons with physical, emotional and developmental disabilities. S

PTOT 4401 Clinical Kinesiology and Biomechanics 4 credits. Analysis of normal and pathological human movement in joints, posture, gait, and the vertebral column. Application of movements to therapeutic interventions is emphasized. PREREQ: "B-" or better in BIOL 4474. S

PTOT 4402 Clinical Neuroscience 5 credits.

Study of structure and function of the human nervous system or the cellular and systemic levels. Specific application to clinical management of neurological problems and pathology. PREREQ: "B-" or better in BIOL 4474 and BIOL 4486. S

PTOT 4412 Professional Communication 2 credits. Introduction to standard forms of professional communication in physical and occupational therapy and among other health care professions. Medical record-keeping and interdisciplinary communication are emphasized. F

PTOT 4413 Occupational Therapy Profession 3 credits. Historical overview of occupational therapy in health care, education and psychosocial settings. Occupational therapy process, rural human service delivery system, professionalism, ethics, and legal issues will be examined. F

PTOT 4421 Self-Exploration in Occupation 3 credits. Focus on self-exploration in occupation and purposeful activity. Self-evaluation in occupational performance areas, components, and context. The student will complete a self-development plan in occupation. Su

PTOT 4422 Occupational Performance 3 credits. Person/occupation/environment interactions are examined from the perspective of multiple theories and models that analyze typical occupations and address performance dysfunctions. PREREQ: "B" or better in PTOT 4413 and PTOT 4421. COREQ: PTOT 4442. S

PTOT 4442 Occupational Performance Laboratory 1 credit. Introduction to and practice using occupation-focused evaluation tools and methodologies used in analyzing, evaluating, and categorizing occupational performance. COREQ: PTOT 4422. S

of Science and Engineering

College of Science and Engineering

Founding Dean: George R. Imel, Ph.D. **Associate Dean**: David W. Rodgers, Ph.D.

Department of Biological Sciences

Chair: (Vacant)

Assistant Chair for Undergraduate Programs and Professor: Scalarone Assistant Chair for Graduate Programs and Professor: Rose

Professors: Bowyer, Finney, 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, Cretekos, 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, Inouye, 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:
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 persuing 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 Letters. 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.

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 1	Biology I, and Lab	4 cr
	BIOL 1102,1102L 1	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 di	vision course work	
	in Biological Science	ces,	28 cr
which must include at least 6 credits in Botany			
	(BIOL 4404, 4405,	4406, 4408, 4409, or 4412)	
	and at least 6 credits	s in Zoology	
	(BIOL 3310, 3314,	3324, 4419, 4420,	
	4423, 4426, 4427, 4	1429, 4431, 4435,	
	4438, 4440, 4441, 4	1443, 4449, 4456,	
	4459, 4470, 4486, c	or 4495)	
	CHEM 1111,1111L	General Chemistry I, and La	b 5 cr
CHEM 1112,1112LGeneral Chemistry II, and Lab 4 cr			
	MATH 1160	Applied Calculus (see note	5)3 cr

Notes:

1. Students pursuing a Bachelor of Arts degree must satisfy all of the General Education goals.

TOTAL: 64 cr

- 2. 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.
- 3. Students should consult with their advisors and with the current departmental list of course rotations to determine which semesters and years biology electives will be offered.

- 4. Students may select courses in the College of Education to meet the requirements for teacher certification while completing a degree in the College of Arts and Letters. 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.
- 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.
- 6. Up to 8 credits of Organic Chemistry may be counted towards required upper division credits in Biological Sciences.
- 7. A maximum of 8 credits of BIOL 4481/4482, Independent Problems, may be applied to this degree program.

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 cı
BIOL 1102, 1102L	Biology II, and Lab	4 cr
	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 cı
BIOL/CHEM 4445	Biochemistry I	3 cı
BIOL/CHEM 4447	Biochemistry II	3 cı
BIOL/CHEM 4498	Seminar in Biochemistry	1 cı
CHEM 1111, 1111L	General Chemistry I, and Lab	5 cr
CHEM 1112, 1112I	General Chemistry II, and Lab	4 cr
CHEM 2232, 2234	Quantitative Analysis, and Lab	4 ci
CHEM 3301, 3303	Organic Chemistry I, and Lab	4 cr
CHEM 3302, 3304	Organic Chemistry II, and Lab	4 ci
CHEM 3341**	Topics in Physical Chemistry I	i 3 cı
CHEM 3342**	Topics in Physical Chemistry II	(3 cr
MATH 1170	Calculus I	4 cr
MATH 1175	Calculus II	4 cı
PHYS 1111, 1113***	General Physics I, and Lab	4 cr
PHYS 1112, 1114***	General Physics II, and Lab	4 cı
	Subtotal: 7	73 cı
General Education	Requirements	24 cı
	TOTAL: 9	97 cr
*C. 1 .	1.7	7

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

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

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

Concentration Requirements

Students must satisfy the requirements for one of the biochemistry concentrations listed below. All graduates will earn a B.S. in Biochemistry, irrespective of which concentration is selected.

Concentration 1: Biological Chemistry

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

	and Lab	4 cr
CHEM 4492	Seminar	1 cr
PSCI 3301	Introduction to Pharmacolo	gy 3 cr
BIOL 4492	Seminar	1 cr

Concentration 2: Biochemistry and Molecular Biology

BIOL 3302 and 3302L; 3303 and 3303L; 4404 and 4404L; or 4433 and 4433L

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

Concentration 3: Physiological Biochemistry

BIOL 3302 and 3302L; or 3303 and 3303L Human or Animal Physiology, and Lab 4 cr PSCI 3301 Introduction to Pharmacology 3 cr BIOL 4492 Seminar 1 cr

Electives

Students must take a minimum of 9 elective credits from the list below, with at least 3 credits in Biological Sciences (BIOL), 3 credits in Chemistry (CHEM), and 3 credits in Biomedical and Pharmaceutical Sciences (PSCI). Advanced or experimental courses are acceptable. These courses satisfy the electives requirement only if they are not required for a chosen Biochemistry concentration.

Courses in Bio	ological Sciences	
BIOL 3301, 3301I	Anatomy and Physiology,	
	and Lab	4 cr
BIOL 3302, 3302I	Anatomy and Physiology	
	and Lab	4 cr
BIOL 3303, 3303I	Principles of Animal	
	Physiology, and Lab	4 cr
BIOL 3324, 3324I	Developmental Biology	
, ,	and Lab	4 cr
BIOL 4404	Plant Physiology	4 cr
BIOL 4415, 4415L	Human Neurobiology, and La	b5 cr
BIOL 4417	Organic Evolution	3 cr
BIOL 4433, 4433I	Microbial Physiology, and La	b4cr
	Microbial Diversity, and Lab	
BIOL 4443	Endocrinology	3 cr
BIOL 4449, 4449I	R / PHAR 9949, 9949R	
,	Human Physiology,	
	and Recitation	4 cr
BIOL 4451, 4451I	Immunology, and Lab	4 cr
BIOL 4456, 4456I	R / PHAR 9956, 9956R	
	Human Physiology II,	
	and Recitation	4 cr
BIOL 4461	Advanced Genetics	3 cr
BIOL 4463, 4463I	Human Pathophysiology,	
	and Lab	4 cr
BIOL 4473, 4473I	Applied and Environmental	
	Microbiology, and Lab	4 cr
BIOL 4475	General Virology	3 cr
BIOL 4477 or 4478	Bacterial or Animal	
	Virology Laboratory	1 cr
BIOL 4481 and/or	4482 Independent Problems	
	(max 2 credits)	2 cr
BIOL 4488	Advanced Radiobiology	3 cr
Courses in Ch	emistry and Mathema	tics

CHEM 2211, 2213 Inorganic Chemistry, and Lab 4 cr

CHEM 3311 and/o	r 3312 Introduction to Research	:h
	(max)) 2 cr
CHEM 3331, 3334	Instrumental Analysis, and La	o4 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/o	or 4482 Independent Problem	S
	(max 2 credits)	2 cr
MATH 2240	Linear Algebra	3 cr
MATH 2275	Calculus III	4 cr
MATH 3360	Differential Equations	3 cr

Courses in Biomedical and Pharmaceutical Sciences

PSCI 2205	Drugs in Society	2 cr
PSCI 3301	Introduction to Pharmacology	3 cr
PSCI 3308	Drug Discovery	3 cr
PSCI 3353	Introduction to Methods in	
	Pharmaceutical Sciences	2 cr
PSCI 3368	Introduction to Toxicology	3 cr
PSCI 4402	Immunopharmacology	2 cr
PSCI 4403	Infectious Diseases	
	and Natural Products	3 cr
PSCI 4407	Pharmacogenomics	2 cr
PSCI 4408	Medicinal Chemistry	3 cr
PSCI 4431	Cancer Biology	3 cr
PSCI 4434	Pharmacokinetics	3 cr
PSCI 4440	Fundamentals of Nanoscience	3 cr
*Prerequisites incli	ude CHEM 2211, 2211L, 3351,	and
3352.		
***	1 1 (1117) (222 (225) 122	

^{**}Prerequisites include CHEM 3334, 3351, and 3352.

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 d	ivision courses	
in Biological Scien	ices,	21 cr
which must include	e at least 6 credits in Botany:	
(BIOL 4404, 4405	, 4406, 4408, 4409, or 4412)	
and at least 6 credi	ts in Zoology:	
(BIOL 3310, 3314	, 3324, 4419, 4420, 4423, 44	26,
4427, 4429, 4431,	4435, 4438, 4440, 4441, 444	3,
4449, 4456, 4459,	4470, 4486, or 4495)	
CHEM 1111,1111L	General Chemistry I, and La	b 5 cr
CHEM 1112,1112I	General Chemistry II, and La	b 4 cr
CHEM 3301,3303	Organic Chemistry I, and La	b 4 cr
MATH 1160	Applied Calculus (see note 5) 3 cr
MATH 3350	Statistical Methods (see note 5	3) 3 cr
BIOL 3316	Biometry Laboratory	1 cr
PHYS 1111,1113	General Physics I, and Lab	4 cr
	TOTAL:	73 cr
M-4		

1. Students pursuing a Bachelor of Science degree must satisfy goals 1, 2, 3, 4, and 5, two of goals 6, 7, and 8, and three of goals 9, 10, 11, and 12. Goal 10 may be satisfied by either 10A or 10B.

2. Students who plan to apply to graduate or professional programs in the biological or medical sciences are strongly advised to take a full year of Organic Chemistry (add CHEM 3302, 3304) and a full year of Physics (add PHYS 1112, 1114). These classes are $required \, by \, many \, graduate \, and \, professional \, programs.$ ${\it 3. Biology electives must include upper division course}$ 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. 4. Students may select courses in the College of Education to meet the requirements for teacher certification while completing a degree in the College of Arts and Letters. 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

	0	
BIOL 1101,1101L	Biology I and Lab	4 cı
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	y,
	and Lab	4 cr
BIOL 4406,4406L	Plant Diversity and Evolution	n,
	and Lab	4 cr
BIOL 4408,4408L	Plant Ecology, and Lab	3 cı
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 follow	ing

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

Plants and Human Prospect	s 3 cı
Plant Form and Function,	
and Lab	3 c1
Population and Community	
Ecology, and Lab	3 c1
Plant/Animal Interactions,	
and Lab	3 c1
Field Ecology	3 c1
Independent Problems	1-6 cı
Senior Thesis	1-4 cı
	Plant Form and Function, and Lab Population and Community Ecology, and Lab Plant/Animal Interactions, and Lab Field Ecology Independent Problems

2. Courses in Mathematics and Statistics*

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

3. Courses in Chemistry and Physics**

CHEM 1111,1111LGeneral Chemistry I, and Lab 5 cr CHEM 1112,1112LGeneral 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.

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 L and Lah

BIOL HUI,HUIL	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 E	cology 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	e 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. Organisma	l Biology (Take two o	of
41 6 11 .		

3. Organismal Biolog	gy (Take two of	
the following courses	s)†	
BIOL 3303,3303L Principle	es of	
Animal	Physiology, and Lab 4 c	r
BIOL 3310,3310L Inverteb	rate Zoology,	
and Lab	4 c	r
BIOL 4404,4404L Plant Ph	ysiology, and Lab 4 c	r
BIOL 4405,4405L Plant Fo	rm and Function,	
and Lab	3 c	r
BIOL 4406,4406L Plant Di	versity and Evolution,	
and Lab	4 c	r
BIOL 4412,4412L Systema	tic Botany, and Lab 4 c	r
BIOL 4426,4426L Herpetol	logy, and Lab 3 c	r
BIOL 4427,4427L Ichthyol	ogy, and Lab 3 c	r
BIOL 4431,4431L General	Entomology,	
and Lab	3 c	r
BIOL 4435 Vertebra	te Paleontology 4 c	r

BIOL 4438	Ornithology	3 cr
BIOL 4441,4441L	Mammalogy, and Lab	3 cr
BIOL 4495	Ethology	3 cr

4. Required Quantitative Skills Courses †

0041505		
BIOL 3316	Biometry Laboratory	1 c
MATH 3350	Statistical Methods	3 c
PHYS 1111,1113	General Physics I, and Lab	4 c

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**,***,8

			,	70	
(CHEM	[1111,	1111L	General Chemistry I, and Lab	5 cr
(CHEM	[1112,	1112L	General Chemistry II, and Lab	4 cr
(CHEM	1 3301	,3303	Organic Chemistry I, and Lab	4 cr
Ν	MATE	I 1160		Applied Calculus	3 cr
				OR	
N	MATE	I 1170		Calculus I	4 cr

Plus one of the following courses:

BIOL 4432	Biochemistry	
	(1 semester class)	3 c1
BIOL 4445	Biochemistry I	3 c1
BIOL 4447	Biochemistry II	3 c1
CHEM 3302,3304	Organic Chemistry II, and Lab	4 cı
GEOL 1101,1101L	Physical Geology, and Lab	4 cı
GEOL 4402	Geomorphology	4 cı
GEOL 4406	Environmental Geology	3 c1
GEOL 4409	Remote Sensing	3 c1
GEOL 4415	Quaternary Geology	3 c1
GEOL 4420	Principles of Geochemistry	3 c1
GEOL 4421	Structural Geology	4 cı
GEOL 4430	Principles of Hydrogeology	3 c1
GEOL 4445	Principles of Geophysics	4 cı
GEOL 4452	Sedimentation-Stratigraphy	3 c1
MATH 1175	Calculus II	4 cı
MATH 2240	Linear Algebra	3 cı
MATH 2287	Foundations of Mathematics	3 c1
PHYS 1112	General Physics II	3 c1
PHYS 4412	Environmental	
	Health Physics	3 c1
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 II 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

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

Bachelor of Science in **Microbiology**

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 concentrations, and 6 credits of elective courses in Microbiology. All graduates of this program will earn a B.S. in Microbiology, irrespective of which concentration 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	
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	I 4438	
	Experimental Biochemistry	1 cr
TATOR ALLE ALLEY	0 11 11 1 1 1 1 1 1	

BIOL 4444,4444L	Experimental Biochemistry Cell and Molecular Biology,	1 cr
	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 CONCENTRA-TION 1: Molecular Microbiology and Microbial Biochemistry, for students interested in:

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

4 cr

BIOL/CHEM 4447†Biochemistry II†	
BIOL:4461 Advanced Genetics	3 cr
BIOL 4473, 4473L Applied and Environmental	
Microbiology, and Lab	4 cr
Elective courses (from list below)	

MICROBIOLOGY CONCENTRA-TION 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 L	ab 1 cr
Elective courses (from	n list below)	6 cr

Elective Courses:

In addition to the core courses and the courses in either Concentration 1 or Concentration 2, students must choose elective credits from the following course list. Courses taken to satisfy the concentration requirements will not count toward the electives requirement.

BIOL 4454	Advanced Immunology	3 cr
BIOL 4455, 4455L	Pathogenic Microbiology,	
	and Lab	5 cr
BIOL:4461	Advanced Genetics	3 cr
BIOL 4466	Medical Mycology	3 cr
BIOL 4469	Special Topics in Microbiology	1-4 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 La	b 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 Concentration 1 must take BIOL/CHEM 4445 (Biochemistry I) and BIOL/CHEM 4447 (Biochemistry II) instead of BIOL 4432. Students will not receive credit for both BIOL4432 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*,**

riequirea coa	,	
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
	General Chemistry II, and Lab	4 cr
	Organic Chemistry I, and Lab	
	Organic Chemistry II, and Lab	
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
	General Physics II, and Lab	4 cr
Electives (upper-di		6 cr
("11"	TOTAL: 7	78 cr
Notes:		

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.

Minor in Biology

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

BIOL 1101,1101L	Biology I, and Lab	4 c
BIOL 1102,1102L	Biology II, and Lab	4 cı
BIOL 2221,2221L	Introductory Microbiology,	
•	and Lab	4 c
BIOL 2206,2207	Cell Biology, and Lab	4 c
BIOL 2209,2209L	General Ecology, and Lab	4 c
BIOL 3358	Genetics	3 c
BIOL 4417	Organic Evolution	3 c
Upper division Bio	logy courses*	3-4 c
	TOTAL: 29	9-30 c
*DIOI 4401 4402	DIOI 4401 4402 1 DIOI	1 110

*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 Bo	any courses*	7-8 cr
	TOTAL: 28	3-30 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 La	b 4 cr
BIOL 1192 Ecology Seminar	1 cr
BIOL 2209,2209L General Ecology a	nd Lab 4 cr

Any combination of the following courses to total 12 credits:

courses to tota	ai 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
(BIOL 4481-4482	and BIOL 4491-4492 may no	ot be
used without prior of	approval of the departmental c	hair
or assistant chair.)		

Minor in Microbiology

BIOL 2235,2235L General Microbiology and Lab

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	I 4438		
	Experimental Biochemistry	1	cr
BIOL 4444,4444L	Molecular Biology, and Lab	4	cr
BIOL 4451,4451L	Immunology, 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 Laboratory 1 cr
BIOL 4477 Bacterial Virology Laboratory 1 cr
BIOL 4478 Animal Virology Laboratory 1 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 Zoology

BIOL 1101,1101L	Biology I, and Lab	4 c1
BIOL 1102,1102L	Biology II ,and Lab	4 c1
BIOL 2206,2207	Cell Biology, and Lab	4 c1
BIOL 2209,2209L	General Ecology, and Lab	4 c1
BIOL 3358	Genetics	3 c1
BIOL 4417	Organic Evolution	3 c1
Upper division Zoo	ology courses*	7-8 cı
	TOTAL: 29	9-30 ci

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

Biological Sciences Courses

BIOL 1100 Concepts Biology: Human Concerns 4 credits. Considers biological issues related to human environment, population, 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 Careers in Ecology and Conservation Biology 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. PRE-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. PRE-or-COREQ: BIOL 2206. F, S

BIOL 2209 General Ecology 4 credits. Organisms in relation to their environment. Lectures, Laboratories, Field trips. PREREQ: BIOL 1101 and BIOL 1102. COREQ: BIOL 2209L. F, S

 ${\bf BIOL2209LGeneral\,Ecology\,Lab\,0\,credit.} F, S$

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. PRE-or-COREQ: BIOL 2221. F, S

BIOL 2230 Bioethics 3 credits. Examination of recent advances in biology and medicine in relation to basic ethical theories and traditional value systems. Focuses on human reproduction, genetic engineering, medical care, humans as experimental subjects, environmental issues, and death and dying. D

BIOL 2235 General Microbiology 4 credits. Comparative taxonomy, cytology, physiology, genetics, immunology, and ecology of microorganisms, and a survey of important applications. Lectures, laboratories. PREREQ: BIOL 1101 and CHEM 1112. COREQ: BIOL 2235L. F, S

BIOL 2235L General Microbiology Lab 0 credit. F, S

BIOL 3301 Anatomy and Physiology 4 credits. Structures and functions of integumentary, skeletal, muscular, and nervous systems. Lectures, laboratories. PREREQ: BIOL 1101. COREQ: BIOL 3301L. F

BIOL3302 Anatomy and Physiology 4 credits. Structures and functions of circulatory, respiratory, urinary, digestive, endocrine, and reproductive systems. Lectures, laboratories. PREREQ: BIOL 1101. COREQ: BIOL 3302L. S

BIOL 3301 Anatomy and Physiology Lab

BIOL 3303 Principles of Animal Physiology 4 credits. Compares homeostatic processes including ionic and osmotic regulation, nerve and muscle physiology, circulation, and respiration. Lecture and Laboratory. PREREQ: BIOL 1101 and 1102, and one year of college chemistry. COREQ: BIOL 3303L. S

BIOL 3303 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, and one of the following: PHYS 1100, PHYS 1111, or PHYS 2211. S

BIOL 3310 Invertebrate Zoology 4 credits. General study of invertebrate animals with laboratory work on representatives of the in-

vertebrate phyla. Field trips. PREREQ: BIOL 1101 and BIOL 1102. COREQ: BIOL 3310L. S

BIOL3310 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. Lectures, laboratories. PREREQ: BIOL 1101 and BIOL 1102. COREQ: BIOL 3314L. F

BIOL 3314 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. Lectures, laboratories. PREREQ: BIOL 1101 and BIOL 1102. COREQ: BIOL 3315L. F, S

BIOL 3316 Biometry Laboratory 1 credit. Statistical analysis and presentation of data for the biological sciences. This course, which complements MATH 3350, focuses on manipulation, presentation, and analysis of data sets. COREQ: MATH 3350. F, AS

BIOL 3324 Developmental Biology 4 credits. Fundamental principles and concepts of embryological development. Selected model systems will be studied to illustrate basic concepts in development. Lectures, laboratories. BIOL 1101 and BIOL 1102. COREQ: BIOL 3324L. S

BIOL 3324L Developmental Biology Lab 0 credit. ${\bf S}$

BIOL 3337 Conservation Biology 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

BIOL 3358 Genetics 3 credits. Basic principles of heredity, variation, and gene expression among eukaryotes, prokaryotes, and viruses. PREREQ: BIOL 2206 or BIOL 2235. F, S

BIOL 4400 Oral Histology and Embryology 3 credits. The microanatomy and formative processes of the teeth and their surrounding structures. Lectures, laboratories. COREQ: BIOL 4400L. S

BIOL 4400L Oral Histology and Embryology Lab 0 credit. S

BIOL 4404 Plant Physiology 3 credits. Study of plant physiological processes with emphasis on plant-environment interactions. Topics include physiological ecology, water relations, mineral nutrition, photosynthesis, respiration, translocation of photosynthate, secondary compounds and phytohormones. PREREQ: BIOL 1101, BIOL 1102 and one year of college chemistry. AS

BIOL4404L 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 1 credit. AF

BIOL 4406 Plant Diversity and Evolution 4 credits. Study of the reproduction, structure, development, evolution, and classification of the fungi, algae, bryophytes, and vascular plants. Lectures, laboratories. PREREQ: BIOL 1101 AND 1102. COREQ: BIOL 4406L. AF

BIOL 4406L Plant Diversity and Evolution Lab 0 credit. AF

BIOL 4408 Plant Ecology 3 credits. Major factors limiting plant growth and distribution with emphasis on adaptation and response at the individual, population, and community levels. Lectures, laboratories. PREREQ: BIOL 1101 and BIOL 1102. COREQ: BIOL 4408L. AF

BIOL 4408L Plant Ecology Lab 0 credit. AF

BIOL4412 Systematic Botany 4 credits. Study of classification and evolution of flowering plants; techniques of phylogeny reconstruction based on molecular and morphological characters. Lectures/Laboratories. Collection/identification of local flora. Field trips. PRE-REQ: BIOL 1101 and BIOL 1102. COREQ: BIOL 4412L. S

BIOL4412LSystematic 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 Ecology 4 credits. Introduces quantitative analysis of populations, emphasizing demography, distribution, abundance, spatial and temporal dynamics, biodiversity, coexistence, and applications to conservation and land use decision-making. Includes data collection and analysis. PREREQ: BIOL 2209. COREQ: BIOL 4416L. AF

BIOL 4416L Population Ecology Lab 1 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

BIOL4418 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. Lectures, laboratories. 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 1 credit. AS

BIOL4427 Ichthyology 3 credits. The biology of fishes: lecture topics include evolutionary history, functional morphology, physiological ecology, and biogeography. Laboratory and weekend field trips cover identification, natural history and collecting techniques. Emphasis on Idaho species. PREREQ: BIOL 2209. COREQ: BIOL 4427L. AF

BIOL 4427L Ichthyology Lab 1 credit. 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 Lab 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. Lectures, laboratories. PREREQ: BIOL 2301, BIOL 2302. COREQ: BIOL 4429L. F

BIOL4429LRegional 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. Lectures, laboratories, Field trips. PREREQ: BIOL 1101 and BIOL 1102. COREQ: BIOL 4431L. AF

BIOL 4431L General Entomology Lab 1 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

BIOL4433 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, and completion of 90 credits. PRE-or-COREQ: BIOL 4433L. 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.
Enrichment, cultivation, and isolation of prokaryotes from various metabolic groups

and environments. Microorganisms will be identified using classical microbial techniques and modern molecular methodologies. May be repeated upon completion of BIOL 4434L. PREREQ: BIOL 2235, BIOL 2235L, and completion of 90 credits. PRE-or-COREQ: BIOL 4434L. 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. PRE-or-COREQ: BIOL 4432 or BIOL/CHEM 4445. F, S

BIOL 4438 Ornithology 4 credits. Study of the origin, evolution, structure, habits, adaptations, distribution, and classification of birds. Field trips. PREREQ: BIOL 1101 and BIOL 1102. S

BIOL4439 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. PRE-REQ: permission of instructor. AS

BIOL4440 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. Lecture and laboratory. COREQ: BIOL 4440L. 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. Lectures, laboratories, field trips. PREREQ: BIOL 2209. COREQ: BIOL 4441L. AF

BIOL 4441L Mammalogy Lab 1 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 4 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. PRE-or-COREQ: BIOL 4444L. 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 I3 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

BIOL4450 Head and NeckAnatomy 3 credits. Comprehensive presentation of the anatomy of the head and neck as it applies to the practice of dentistry. Lecture and laboratory. COREQ: BIOL 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. PRE-or-COREQ: BIOL 4451. Open to non-majors by special permission. F

BIOL4454 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: BIOL4451 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

BIOL4455L 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. PRE-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. COREQ: BIOL 4459L. AF

BIOL 4459L Fish Ecology Laboratory 1 credit. 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. Lectures, Laboratories, Field trips. PREREQ: BIOL 2209. COREQ: BIOL 4462L. AF

BIOL 4462L Freshwater Ecology Lab 1 credit. AF

BIOL 4463 Human Pathophysiology 4 credits. The study of basic process underlying diseases, with an emphasis on correlating anatomical, functional, and b/iochemical alterations with clinical manifestations. Laboratory required. PREREQ: BIOL 3301 and BIOL 3302, or permission of instructor. COREQ: BIOL 4463L, F. W

BIOL 4463L Human Pathophysiology Lab 0 credit. $F,\,\mathrm{W}$

BIOL 4464 Lectures in Human Physiology 4 credits. Physiology of the nervous, muscular, circulatory, respiratory, and excretory systems. PREREQ: BIOL 3301, BIOL 3302, and one year of college chemistry. F

BIOL 4466 Medical Mycology 3 credits. Lecture/laboratory course addressing medically important fungi. Taxonomy, clinical disease, pathogenesis, immunological diagnosis and laboratory identification of contaminants, opportunists, superficial, cutaneous, subcutaneous and systemic mycoses. PREREQ: BIOL 2221 OR BIOL 2235. S

BIOL4469 Special Topics in Microbiology 1-4 credits. Study of selected topics in microbiology. Course contents will vary with topics selected. May be repeated with departmental approval for nonrepetitive course content. PREREQ: Permission of instructor. F, S

BIOL 4470 Cross-Sectional Anatomy 2 credits. Applied regional anatomy as viewed in sectional planes, emphasizing topographic relationships of organs and surface anatomy, with interpretation of correlated CT and MRI imaging. PREREQ: BIOL 3301 and BIOL 3302. S

BIOL 4471 Fundamentals of Biological Imaging 3 credits. Introduction to optical microscopy with an emphasis on optical image formation, documentation, interpretation and digital image analysis relevant to experimental applications in the biological sciences. Lecture and laboratory with independent research component. AS(E)

BIOL 4472 Clinical Physiology 2 credits. A survey of selected organ systems with clinical correlations of pathophysiologic states. PRE-REQ: BIOL4 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. PRE-or-COREQ: BIOL 4473L. AS

BIOL 4473L Applied Environmental Microbiology Lab 1 credit. Laboratory exercises in applied and environmental microbiology. COREQ: BIOL 4473. AS

BIOL 4474 Human Anatomy (Occupational Therapy/Physical Therapy) 5 credits. Applied regional anatomy emphasizing the development, histology and gross anatomy of the musculoskeletal, peripheral nervous, and cardiopulmonary systems. Includes laboratory with cadaver dissection. PREREQ: Permission of instructor. COREQ: BIOL 4474L. F

BIOL 4474L Human Anatomy (OT/PT) Lab 0 credit. F

BIOL 4475 General Virology 3 credits. Introduction to the general principles of virology through consideration of structure, genetics, replication and biochemistry of animal and bacterial viruses. PREREQ: completion of 90 credits. F

BIOL 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 4476 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. PRE-or-COREQ: BIOL 4475. S

BIOL 4478 Animal Virology Laboratory 1 credit. Introduces tissue culture methods and other techniques employed in the study of animal viruses. PRE-or-COREQ: BIOL 4475. 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

BIOL 4486L Human Systemic Physiology Lab 0 credit. F

BIOL4488 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. Crosslisted as HPHY 4488. PREREQ: permission of instructor. AF

BIOL 4489 Field Ecology 4 credits. An intensive field study of at least one biogeographical region to increase student's knowledge of, and skill with, field sampling techniques, field-study design, data collection and analysis, and report preparation. Lectures, laboratories. PREREQ: BIOL 2209 and a course in statistics. S

BIOL4491 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

BIOL4492 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

BIOL4494 Seminar in Microbiology 1 credit. Presentation of written and oral review of library research in microbiology and molecular biology by students for discussion with faculty and fellow students. May be repeated for up to 2 credits. F, S, Su

BIOL 4495 Animal Behavior 4 credits. Behavior of animals and the evolutionary mechanisms which dictate behavioral patterns. PREREQ: Upper division or graduate status. AF

BIOL 4496 Ecology Senior Seminar 1 credit. Review of current research in ecology and related areas. Attendance at departmental seminars and written summaries of the seminars required. PREREQ: Senior status and Ecology major or permission of department. F, S

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

BIOL4498 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: De Jesus (Organic)

Professors: Castle (Organic), Holman (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

A suggested sequence for the science requirements is listed below. Variations from the suggested sequence should be checked to ensure that all course prerequisites are met.

First	Year
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CHEM 1111, 11111	LGeneral Chemistry I, and Lab	5 cr
CHEM 1112, 11121	LGeneral 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
PHYS 1111,1112, 1	113, 1114 General Physics I and	III
	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

Fourth Vear

CHEM 3391 Seminar 1 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
	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: 7	73 cr
General Education	Requirements 2	24 cr
	TOTAL: 9	97 cr
*Students must pa	ss core courses with a grad	le of
C- or better.		

**May elect to take CHEM 3351and 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 c
CHEM 4491	Seminar	1 c

Track 2: Biochemistry and Molecular Biology (8 cr)

· <i>)</i>	
3L; 4404, 4404L; or 4433, 4	1433L
Animal, or Plant, or Mici	robial
Physiology, and Lab	4 cı
Advanced Genetics	3 c1
Seminar	1 cr
	Animal, or Plant, or Mica Animal, or Plant, or Mica Physiology, and Lab Advanced Genetics

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.

5		
BIOL 3301, 3301L	Anatomy and Physiology,	
	and Lab	4 cr
BIOL 3302, 3302L	Anatomy and Physiology	
DIOI 2202 22021	and Lab	4 cr
BIOL 3303, 3303L	Principles of Animal	
DIOI 2224 2224I	Physiology, and Lab	4 cr
BIOL 3324, 3324L	Developmental Biology and Lab	4 cr
DIOI 4404 4404I	Plant Physiology, and Lab	
BIOL 4404, 4404L BIOL 4411K	Molecular Biology	4 cr
DIOL 4411K	Laboratory Methods	3 cr
DIOI 4415 4415I	Human Neurobiology, and Lab	
	Organic Evolution	3 cr
	Microbial Physiology, and Lab	
	Microbial Diversity, and Lab	
	Endocrinology	3 cr
	/ PHAR 9949, 9949R	5 01
BIOL 1110, 11101	Human Physiology,	
	and Recitation	4 cr
BIOL 4451, 4451L	Immunology, and Lab	4 cr
	. / PHAR 9956, 9956R	
	Human Physiology II,	
	and Recitation	4 cr
BIOL 4461	Advanced Genetics	3 cr
BIOL 4463, 4463L	Human Pathophysiology,	
, in the second	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
	Inorganic Chemistry, and Lab	
CHEM 3311 and/or	r 3312 Introduction to Research	
	(max)	
	Instrumental Analysis, and Lab	
	Synthetic Methods, and Lab	
	Inorganic Chemistry II	2 cr
CHEM 4433, 4437	Environmental Chemistry,	_
CTTT	and Lab	3 cr
CHEM 4453**	Modern Experimental	_
GTTT1	Physical Chemistry**	3 cr
CHEM 4481 and/o	r 4482 Independent Problems	
3.6.4771.00.40	(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

Drug Discovery

PSCI 3308

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 Nanoscienc	e 3 cr
*Prerequisites incl	ude CHEM 2211, 2213, 3351, a	ınd
3352.		
WWT	1 1 (1117) (222 (225) 12	252

^{**}Prereauisites 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, 1111I	General Chemistry I, and Lab	5 cr
CHEM 1112, 1112I	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:

(CHE	M 11	11, 11	111L	General Chemistry I, and Lab	5 cr
(CHE	M 11	12, 1	112L	General Chemistry II, and Lab	4 cr
(CHE	EM 22	211		Inorganic Chemistry I	3 cr
(CHE	EM 22	213		Inorganic Chemistry I Lab	1 cr
(CHE	EM 22	232		Quantitative Analysis	2 cr
(CHE	EM 22	234		Quantitative Analysis	
					Laboratory	2 cr
(CHE	EM 33	301-3	302	Organic Chemistry I and II	6 cr
(CHE	EM 33	303-3	304	Organic Chemistry	
					Laboratory I and II	2 cr
N	MA	ΓH 11	70		Calculus I	4 cr
N	MA	ΓH 11	75		Calculus II	4 cr
I	PHY	S 22	12-21	2	Engineering Physics	8 cr
I	PHY	S 22	13-22	214	Engineering Physics	
					Laboratory	2 cr
		4.				

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 0TAL: 24 cr
* Must be comp	leted by the end of the jun	
Summer		
CHEM 4485	Senior Research	6 cı
SecondYear	(Senior year)	
Fall/Spring		
BIOL 4432	Biochemistry	3 cı
CHEM 3365	Synthetic Methods	2 cı
CHEM 3366	Synthetic Methods La	b 2 cı
CHEM 4407	Inorganic Chemistry I	I 2 cı
CHEM 4453	Modern Experimental	
	Physical Chemistry	2 ci
CHEM 4485	Senior Research	2 ci
CHEM 4491	Seminar	1 c
CHEM 6609	Advanced Inorganic	
	Chemistry	3 c
CHEM 6655	Advanced Physical Ch	emistry 3 c
	Electives	8 c
	TO	TAL: 28 cı
Summer		
CHEM 6635	Master's Research	6 cı
Third Year	(Graduate standing	g)
Fall/Spring		
CHEM 6630	Advanced Analytical	

Teaching Major in Chemistry

Students wishing to pursue a Teaching Major in Chemistry should make an appointment to meet with the Department Chair.

Master's Research

Advanced Organic Chemistry 3 cr

4 cr

13 cr

TOTAL: 25 cr

Chemistry

Electives

Minor in Chemistry

Required courses:

CHEM 6671

CHEM 6601

CHEM 6635

CHEM 1111, 1111L	General Chemistry I, and Lab	5 cr
CHEM 1112, 1112I	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-di	ivision electives in chemistry	
(excluding CHEM	4400, CHEM 4481-4482, and	ł
CHEM 4491)		4 cr
	TOTAL: 2	29 cr

Chemistry Courses

All Chemistry courses require a grade of at least C- in all prerequisite chemistry courses.

CHEM 1100 Architecture of Matter 4 credits. How scientific thought has produced chemical models of the structure of the material world. and the ethical and social consequences of its applications. Recommended for students not majoring in the natural sciences. 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. PRE-or-COREQ: CHEM 1111. F, S

CHEM 1112 General Chemistry II 3 credits. Introduction to kinetics, equilibrium, electrochemistry, and nuclear chemistry. May be repeated upon completion of CHEM 1112L. 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. PRE-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

CHEM 3342 Topics in Physical Chemistry 3 credits. Topics in physical chemistry with application to biological systems are covered. Molecular structure, thermodynamics of gases and solutions, reaction rates and mechanisms, basic quantum mechanics, and spectroscopic principles are covered in this two semester sequence. PREREQ: CHEM 3341, or permission of instructor. S

CHEM 3351 Physical Chemistry 3 credits. The fundamental principles of physical chemistry; thermodynamics, reaction kinetics, molecular structure, quantum theory, spectroscopy, and solution chemistry. PREREQ: CHEM 1112, CHEM 1112L, MATH 1175, and PHYS 2212, or permission of instructor. F

CHEM 3352 Physical Chemistry 3 credits. The fundamental principles of physical chemistry; thermodynamics, reaction kinetics, molecular structure, quantum theory, spectroscopy, and solution chemistry. PREREQ: CHEM 3351. S

CHEM 3365 Synthetic Methods 2 credits. Practical aspects of chemical synthesis: preparation, purification, and spectral interpretation for organic and inorganic molecules. PREREQ: CHEM 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 II2 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. PRE-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

School of Engineering

D. Subbaram Naidu, Ph.D., P.E., Director

Mission

The mission of the School 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 School 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 Bachelor of Science (B.S.) programs in Civil Engineering, Electrical Engineering, Nuclear Engineering and Mechanical Engineering are accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org.

The Bachelor of Science (B.S.) program in Computer Science is accredited by the Computing Accreditation Commission of ABET, http://www.abet.org.

Fundamentals of Engineering (FE) Exam

Engineering students are encouraged to take the Fundamentals of Engineering (FE) exam (administered nationally, twice a year) during their senior year, while the breadth of the engineering material covered on the examination is still fresh in their minds. This exam is considered the first step in professional licensure for engineers. Those who successfully pass the FE exam while enrolled at Idaho State University will have that fact noted on their transcript.

Student Information

Idaho State University engineering and computer science graduates are successfully employed in many areas, and many have chosen to continue advanced studies in a wide variety of specialized engineering disciplines.

Each student entering an engineering or computer science program is assigned a faculty advisor to guarantee an appropriate plan of study and to 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 School 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.

School of Engineering Academic Rules

- 1. A student who fails the same engineering or computer science course (any course offered by the School of Engineering) two or more times may be dismissed from the School contingent upon review by the appropriate School committee.
- Students who have been dismissed from the School 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 School articulation and/or transfer credit review criteria. The School recommends that students who intend to transfer a course to Idaho State University obtain prior approval for the transfer. Any transfer course must be completed within a single academic term. Evaluation of transfer credits must be completed before a student can matriculate or rematriculate into the School.
- 5. Any prerequisite in a sequence of courses is an effective prerequisite for any subsequent course in the sequence. For example, if course A is a prerequisite for course B, and course B is a prerequisite for course C; then course A is an implied prerequisite for course C.
- 6. Every School of Engineering student must meet with a College faculty member from her/his discipline for academic advising prior to registration each semester. Students will not be permitted to register for engineering/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 School of Engineering administers programs leading to the Master of Science in Engineering and the Ph.D. The M.S. program comprises majors in Civil Engineering, Environmental Engineering, Environmental Science and Management, Measurement and Control Engineering, Mechanical Engineering, and Nuclear Science and Engineering. The Ph.D. is available in Engineering and Applied Science and in Nuclear Science and Engineering. For more information, see the Graduate Catalog. Additional graduate programs are available through interdisciplinary majors with mathematics and the physical sciences.

General Education Requirements (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 Readin	g
	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	5 cr
	PHYS 2211, 2212	
	Engineering Physics	8 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

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. Cross-listed as CE 1105. 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. Cross-listed as CE/ME 1120. 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. Cross-listed as ME 1165. PRE-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. Cross-listed as ME 1166.PREREQ: MATH 1170.PRE-or-COREQ: ENGR/ME 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. PRE-or-COREQ: ENGR/ME1165. S

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. Cross-listed as CE/ME 2210. PRE-or-COREQ: CE/ENGR 1105 or ME 1105; CE/ENGR/ME 1120 or NE 1120; PHYS 2211, and MATH 1175. F, S

ENGR 2223 Materials and Measurements 3 credits. Structure of materials. Mechanical, electrical and thermal behavior of metals, ceramics, polymers and composite materials. Laboratory measurement of material properties. Three lectures and one lab per week. Cross-listed as ME 2223. PREREQ: CHEM 1111, CHEM 1111L, and ENGL 1102. F, S

ENGR 2224 Materials and Measurements Laboratory 1 credit. Laboratory measurement of material properties. Cross-listed as ME 2224. COREQ: ENGR 2223. F, S

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. Cross-listed as CE/ME 3350. PREREQ: CE/ENGR/ME 2210, ENGR/ME 2223, and ENGR/ME 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. Cross-listed as CE 3361. 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/ME 1165 or CS 1181; MATH 2240, MATH 2275, and MATH 3360. F

ENGR 3392 Cooperative Education 1-3 credits. Academic work done in conjunction with approved engineering work experience. Written report required. Consult with faculty advisor

regarding availability and specific requirements. Graded S/U. PREREQ: Junior standing and permission of instructor. F, S, Su

ENGR 4400 Essentials of Engineering 2 credits. Preparation for Fundamentals of Engineering Exam. May not be used as a technical elective. May be repeated once for a total of 4 credits. PREREQ: Senior standing in Engineering. Graded S/U. F, S

ENGR 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. Cross-listed as ME 4415. PRE-REQ: CE/ME 3341 and CE/ENGR/ME 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. Cross-listed as CE/EE 4481 and CS 4482. PREREQ: Permission of instructor D

ENGR 4492 Human Factors in Engineering 3 credits. Overview of the discipline of human factors engineering, including design of information displays, controls, workspace, and human performance. Relationship of engineering to corporate issues such as R&D, maintenance, training, operations, safety. D

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 CE, CS, EE, and ME 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. Crosslisted as CE, CS, EE, and ME 4496B. PREREQ: ENGR 4496A. S

of Science and

Department of Civil and Environmental Engineering

Chair and Professor: Ebrahimpour Associate Chair and Professor: Sato

Professor: Leung

Assistant Professors: Savage, Sorensen

Senior Lecturer: Mahar Visiting Assistant Professor: Gale Adjunct Faculty: Arneson, Forbord,

Gossett, Merrill, Vahsholtz Affiliate Faculty: O'Brien

Accreditation

The Bachelor of Science (BS) program in Civil Engineering (CE), is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org

Educational Objectives

The following Educational Objectives have been established:

- Graduates will apply technical knowledge in complex engineering projects and obtain professional licensure.
- Graduates will be professionally competent, evidenced by leadership, teamwork, management, and communication skills.
- Graduates will engage in professional development, life-long learning, and service to their profession and society.

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, 1111I	General Chemistry I, and Lab	5 cr
PHYS 2211	Engineering Physics	4 cr
CE/ENGR 1105	Engineering Graphics	2 cr
CE/ENGR/ME 1120	Introduction to Engineering	2 cr
ENGR/ME 1165	Structured Programming	2 cr
CE/ENGR/ME 2210	Engineering Statics	3 cr
ENGR/ME 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 127 or 132 credits as follows:

Mathematics and Engineering Core Courses (38 credits)

CE/ENGR 1105	Engineering Graphics	2 cr
CE/ENGR 1120	Introduction to Engineering	2 cr
CE/ENGR/ME 2210	Engineering Statics	3 cr
CE/ENGR 3361	Engineering Economics	
	and Management	3 cr
EE 2240	Introduction to	
	Electrical Circuits	3 cr
OR		
ENGR/ME 3307	Thermodynamics	3 cr
MATH 1175	Calculus II	4 cr
MATH 2240	Linear Algebra	3 cr
MATH 3360	Differential Equations	3 cr
ENGR/ME 1165	Structured Programming	2 cr
ENGR/ME 2220	Engineering Dynamics	3 cr
ENGR/ME 2223	Materials and Measurements	3 cr
ENGR/ME 2224	Materials and Measurements	
	Lab	1 cr
CE 4496A	Project Design I	3 cr
CE 4496B	Project Design II	3 cr

Other Engineering and Mathematics Courses (36 credits)

MATH 3352	Introduction to Probability	3 cr
CE 3301	Surveying	3 cr
CE 3332	Basic Geotechnics	3 cr
CE/ME 3341	Fluid Mechanics	3 cr
CE/ENGR/ME 33	50	
	Mechanics of Materials	3 cr
CE 3351	Engineering Hydrology	3 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
OR		
CE 4464	Design of Concrete	
	Structures	3 cr
CE 4467	Structural Engineering	
	Laboratory	1 cr

Additional Requirements (15 credits)

ENVE 4408	Water and Wastewater Qualit	y3 cr
ENVE 4410	Introduction to	-
	Environmental Engineering	3 cr
CE electives*		9 cr

* 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 44	483Earthquake Engineering	3 cr

Civil Engineering Courses

CE 1105 Engineering Graphics 2 credits. Engineering drawing emphasizing projections, sketching and 3-D visualization. Introduction to CAD with civil, electrical and mechanical engineering applications. Cross-listed as ENGR 1105. PREREQ: MATH 1147 or equivalent. F, S

CE 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. Cross-listed as ENGR/ME 1120. F, S

CE 2210 Engineering Statics 3 credits. Concepts of force vectors and equilibrium with emphasis on free body diagrams. Trusses, beams, frames, centroids, fluid statics, and friction. Cross-listed as ENGR/ME 2210. PRE-or-COREQ: CE/ENGR 1105 or ME 1105; CE/ENGR/ME 1120 or NE 1120; PHYS 2211, and MATH 1175. F, S

CE 3301 Surveying 3 credits. Fundamental principles of surveying. Electronic and conventional angle and distance measurement, leveling, traversing, GPS, surveying computations, mapping. Application to engineering, geology and architecture. PREREQ: MATH 1147 or equivalent. F, D

CE 3332 Basic Geotechnics 3 credits. Classification, analysis and evaluation of soils as engineering material. Water movement through soils. Soil mechanics applied to analysis of foundations, earth slopes and other structures. PREREQ: ENGR/ME 2224. S

CE 3341 Fluid Mechanics 3 credits. Fluid statics, incompressible fluid flow, open channel flow, compressible fluid flow, pipe flow, flow measurements, pumps, valves, other devices. Cross-listed as ME 3341. PREREQ: ENGR/ME 2220 and MATH 3360. S

CE 3350 Mechanics of Materials 3 credits. Theories of stresses and strains for ties, shafts, beams, columns and connections. Determination of deflections and the investigation of indeterminate members. An introduction to design. Cross-listed as ENGR/ME 3350. PREREQ: CE 2210, or ME 2210, ENGR/ME 2223, and ENGR/ME 2224. F, S

CE 3351 Engineering Hydrology 3 credits. Quantitative descriptions of hydrologic processes and dynamics for the understanding and prediction of precipitation, storm water runoff,

- groundwater flow, flood routing, water quality, and ground water and detention and retention systems. COREQ CE/ME 3341. S
- CE 3360 Engineering Economics 2 credits. Economic analysis and comparison of engineering alternatives by annual cost, present and future worth, and rate of return methods. Study of cost factors upon which management decisions are based. Cross-listed as ENGR 3360. PREREQ: Junior standing in Engineering. F, S
- CE 3361 Engineering Economics and Management 3 credits. Economic analysis and comparison of engineering alternatives by annual cost, present and future worth, and rate of return methods. Study of cost factors upon which management decisions are based. Introduction to design/construction processes, cost estimating and scheduling with applications to civil engineering projects. Cross-listed as ENGR 3361. PREREQ: Junior standing in Engineering. F, S
- CE 3362 Structural Analysis 4 credits. Analysis of statically determinate and indeterminate trusses, beams, and frames; effects of moving loads; matrix stiffness method; computer applications. Four lectures and one 1-hr problem session a week. PREREQ: CE/ENGR/ME 3350 and MATH 2240. F
- CE 4431 Advanced Mechanics of Solids 3 credits. An introduction to elasticity, plasticity, and energy foundations, stability, plates. PRE-REQ: CE/ENGR/ME 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: CE/ENGR/ME 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: CE/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/ME 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. PRE-REO: CE/ENGR/ME 3350 and MATH 2240. D
- CE 4475 Essentials of Geomechanics 3 credits. Essentials of rock fracture relevant to geological engineering including stress and strain, properties and classification of rock masses, rock fracture mechanisms. Cross-listed as GEOL 4475. PREREQ: GEOL 4421 or CE/ENGR/ME 3350 D
- CE 4476 Engineering Geology Project 1 credit. Team projects studying actual problems in engineering geology. Cross-listed as GEOL 4476. PREREQ: GEOL 4454 or 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
- CE 4481 Independent Problems 1-3 credits. Students are assigned to, or request assignment to, independent problems on the basis of interest and preparation. May be repeated for a maximum of 6 credits. Cross-listed as ENGR/EE 4481 and CS 4482. PREREQ: Permission of instructor. D
- CE 4496A Project Design I3 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/EE/ENGR/ME 4496A. PREREQ: Approval of application for admission to course. F
- CE 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, EE/ENGR/ME 4496B. PREREQ: CE 4496A. S

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 Assistant

Professor: Chiu

Professors: Beard, Bosworth, Naidu,

Schou, Stuffle

Associate Professors: Ellis, Kantabutra

Associate Lecturer: Hart

Adjunct Faculty: Hunter, Jensen, Lefevre, Pan, Renlund

Pan, Renlund Affiliate Faculty: Suri

3 cr

3 cr

Semester Total 16 cr

Bachelor of Science in **Electrical Engineering**

Accreditation

The undergraduate program in Electrical Engineering (EE) is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org.

Educational Objectives for Degree Program in **Electrical Engineering**

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 System	s,
	and Lab	4 cr
CHEM 1111, 1111I	General Chemistry I, and Lab	5 cr
CS 1181	Computer Science	
	and Programming I	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	Computer Science and	
	Programming I	3 cr
CS 1182	Computer Science and	
	Programming II	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
CE/CS/EE/ENGR	/ME 4496A	
	Project Design I	3 cr
CE/CS/EE/ENGR	/ME 4496B	
	Project Design II	3 cr

College of Engineering Required

Courses (47 c	eredits):	
EE 2274	Introduction to Digital System	s3 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	y1 cr
CS 4475	Computer Architecture	
	and Organization	3 cr
IN ADDITION		
EE Electives*		6 cr
	chnical Elective or EE elective	
*List of approved c	courses is available from the Co	llege
of Engineering off	fice.	

Recommended Schedule

Fall Semester Freshman Year

CHEM 1111, 1111I	General Chemistry I, and Lab	5 cı
CS 1181	Computer Science and	
	Programming I	3 c1
MATH 1170	Calculus I	4 cı
Social Science and Humanities Course		3 c1
	Semester Total	15 cı

	237
Spring Semes	ter Freshman Year
CS 1182	Computer Science and
	Programming II 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
Eall Compater	Conhamana Vagu
	Sophomore Year
COMM 1101	Principles of Speech 3 cr
EE 2274, 2275	Introduction to Digital
EE 2240	Systems, and Lab 4 cr Introduction to
EE 2240	
MATH 2240	Electrical Circuits 3 cr
MATH 2240 PHYS 2212	Linear Algebra 3 cr Engineering Physics 4 cr
PHYS 2212	8
	Semester Total 17 cr
Spring Semes	ter Sophomore Year
	d 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
00 1170	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
Coming Comes	ton Innian Vocan
	ter Junior Year
EE 3329	Introduction to Electronics 3 cr
EE 4427, 4427L	Embedded Systems Engineering,
EE 4472	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 or Technical Elective

CE/CS/EE/ENGR/ME 4496A

EE 4410	Applied Engineering Methods	<i>3</i> CI
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 E	lective	3 cr

Project Design I Social Science or Humanities Course Semester Total 16 cr

Spring Sem	ester Senior year	
EE 4418	Communication Systems	3 c1
EE 4475	Digital Signal Processing	3 c1
EE 4484	Signal Processing Laborato	ry 1 cı
EE or Technical	Elective	3 c1
CE/CS/EE/ENC	GR/ME 4496B	
	Project Design II	3 c1
Social Science	and Humanities Course	3 01

Bachelor of Science in **Computer Science**

Accreditation

The Bachelor of Science (B.S.) program in Computer Science (CS) is accredited by the Computing Accreditation Commission of ABET, http://www.abet.org.

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.

Kev Courses

1103 00011			
Mathematics	:		(
MATH 1170	Calculus I	4 cr	(
MATH 1175	Calculus II	4 cr	
MATH 2240	Linear Algebra	3 cr	(
Chemistry:			,
CHEM 1111,1111	L, and CHEM 1112, 1112L		(
	General Chemistry I, II, and Labs	9 cr	(
	OR	9 (1	
			(
Physics:			
PHYS 2211, 2213	, 2212, and 2214		(
	Engineering Physics I, II	10 cr	(
Computer Science:		(
CS 1181	Computer Science and		`
	Programming I	3 cr	(

CS 1181	Computer Science and	
	Programming I	3 cr
CS 1182	Computer Science and	
	Programming II	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:

ENGL 1102, Critical Reading

	and Writing		3 cr
Goal 2	COMM 1101, Prin	ciples	
	of Speech		3 cr
Goal 3	MATH 1170, Calc	ulus I	4 cr
Goals 4 and 5	re met by taking EITI	HER of the	;
following seque	nces plus 2 additional	courses in	the
physical and bio	ological sciences	15 or	16 cr
	CHEM 1111, 1111	L and 1112	2,
	1112L General Che	mistry I an	d II,
	and Labs (9 cr)		
	OR		
	PHYS 2211-2214	Engineerir	ıg
	Physics I, II, and I	abs (10 cr	•)
	Two additional cor	ırses*	
	in the Physical and	l Biologica	ıl
	sciences (6 cr)		
Any two of Goa	ls 6, 7, and 8		6 cr
	1 0 10 (A D) 11	1.10	

Any three of Goals 9, 10 (A or B), 11, and 12 *Please consult with a CS advisor for a list of ap-

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 1182 Computer Science and Programming II 3 cr CS/MATH 1187 Applied Discrete Structures 3 cr CS 2263 Advanced Object-oriented	CS 1181	Computer Science and	
Programming II 3 cr CS/MATH 1187 Applied Discrete Structures 3 cr CS 2263 Advanced Object-oriented		Programming I	3 cr
CS/MATH 1187 Applied Discrete Structures 3 cr CS 2263 Advanced Object-oriented	CS 1182	Computer Science and	
CS 2263 Advanced Object-oriented		Programming II	3 cr
	CS/MATH 1187	Applied Discrete Structures	3 cr
Programming 3 cr	CS 2263	Advanced Object-oriented	
.88		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
CE/CS/EE/ENGR	ME 4496A	
	Project Design I	3cr
CE/CS/EE/ENGR	/ME 4496B	
	Project Design II	3cr
EE 2274	Introduction to Digital System	s3 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	
CIC 4405	Assurance***	3 cı
CIS 4485	Network and Communication	
CIS 4487	Systems***	3 cı
C15 4467	Software Systems Study of the Software Implementation	
	Process***	3 сі
CIS 4491	Seminar in Computer	3 CI
C13 4491	Information Systems**,***	3 сі
CS 3331	Web Programming	3 cı
CS 3342	Computer Graphics	3 ci
CS 3343	Neural Networks	3 ci
CS 3344	Artificial Intelligence	3 ci
CS 4420	Cryptography and Security	3 ci
CS 4442	Graphical User Interfaces	3 ci
CS 4444		3 cr
CS 4445	Data Compression	3 ci
CS 4470	Parallel Processing	3 ci
CS 4480	Theory of Computation	3 cr
CS 4481	Compilers and	J 0.
CD 1101	Lexical Analysis	3 cı
CS 4487	Topics in Computer Science	3 ci
EE 3345	Signals and Systems	3 cr
EE 4413	Techniques of	J (1
22	Computer-Aided Circuit	
	Analysis and Design	3 cı
EE 4417	Probabilistic Signals and	J 0.
LL III,	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 cı
MATH 4441	Introduction to Numerical	
	Analysis I	3 cr
MATH 4442	Introduction to Numerical	
	Analysis II	3 cr
MATH 4465	Partial Differential Equations	
*Other choices ma	y be approved by Computer Scie	
advisors on an ind		
** With prior advi.	sor approval.	
•		

***No more than 6 credits of business/CIS courses from this list may be applied toward degree requirements.

Additional Electives (14-15 credits)

- Students must take enough additional elective courses to total at least 130 credits.
- Aminimum of 64 non-computing credits must be taken in meeting graduation requirements.
- 3. 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:

Computer Science and	
Programming I	3 cr
Computer Science and	
Programming II	3 cr
Applied Discrete Structures	3 cr
Advanced	
Object-oriented Programming	3 cr
Advanced	
Computer Programming	3 cr
Calculus I	4 cr
Calculus II	4 cr
	Programming I Computer Science and Programming II Applied Discrete Structures Advanced Object-oriented Programming Advanced Computer Programming Calculus I

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/MATH1187. 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 4429LAdvanced 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, heterojunctions, power and microwave semiconductor devices. PREREQ: EE 4478 or equivalent. D
- **EE 4481 Independent Problems 1-3 credits.** Students are assigned to, or request assignment to, independent problems on the basis of interest and preparation. May be repeated for a maximum of 6 credits. Cross-listed as CE/ENGR 4481 and CS 4482. PREREQ: Permission of instructor. 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
- **EE 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 CE/CS/ENGR/ME 4496A. PREREQ: Approval of application for admission to course. F
- EE 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 CE/CS/ENGR/ME 4496B. PREREQ: EE 4496A. S

Computer Science Courses

- CS 1181 Computer Science and Programming I 3 credits. Problem solving methods and algorithm development with an emphasis on programming style. Lecture and laboratory. PRE-or-COREQ: MATH 1143 or MATH 1147. F, S
- CS 1182 Computer Science and Programming II 3 credits. Continuation of CS 1181, including such topics as data structures, sorts, searches, recursion, and object-oriented programming concepts. PREREQ: CS 1181. PRE-or-COREQ: MATH 1170. 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. PREREO: 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 PRE-or-COREQ: CS 3386. R2
- CS 4482 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. Cross-listed as CE/ENGR/EE 4481. PREREO: Permission of instructor. D
- 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 I3 credits. Semester one of a two semester sequence dealing with the conceptual design of multi-disciplinary projects requiring multi-disciplinary teams. Cross-listed as CE/EE/ENGR/ME 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 CE/EE/ENGR/ME 4496B. PREREQ: CS 4496A. S

Department of Mechanical **Engineering**

Chair and Professor: Schoen

Associate Professors: Wabrek, Williams

Assistant Professor: Perez Associate Lecturer: Hofle

Accreditation

The Bachelor of Science (B.S.) program in Mechanical Engineering (ME) is accredited by the Engineering Acreditation Commission of ABET, http://www.abet.org.

Educational Objectives for Degree Program in **Mechanical Engineering**

Five years after they graduate, our Mechanical Engineering graduates should:

- · Professional and Social Responsibility demonstrate professionalism and ownership of their work, and be an active and positive influence in their community.
- Professional Leadership balance the relationship between business and engineering and interface with multidisciplinary teams to achieve the combined objective.
- Career Development and Professional **Growth** - pursue life-long learning, professional affiliations, and increasing responsibility in the workplace.

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

- (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, 11111	General Chemistry I, and Lab	5 cr
CE/ENGR/ME 1120	Introduction to Engineering	2 cr
ENGR/ME 1165	Structured Programming	2 cr
CE/ENGR/ME 2210	Engineering Statics	3 cr
MATH 1170	Calculus I	4 cr
MATH 1175	Calculus II	4 cr
ENGR/ME 1105	Solid Modeling	2 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):

3.6.4 mir 11.55	0.1.1.17	
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):

CE/ENGR/ME 1120	Introduction to Engineering	2 cr	
ENGR/ME 1165	Structured Programming	2 cr	
ENGR/ME 1166	Symbolic Programming	1 cr	
CE/ENGR/ME 2210	Engineering Statics*	3 cr	
ENGR/ME 2223,2224	4Materials and Measurements	,	
	and Lab*	4 cr	
EE 2240	Introduction to		
	Electrical Circuits	3 cr	
EE 3340, 3342	Fundamentals of Electrical		
	Devices, and Lab	4 cr	
CE/ENGR/ME 33:	50		
	Mechanics of Materials*	3 cr	
ENGR 3360	Engineering Economics	2 cr	
ENGR/ME 1105	Solid Modeling	2 cr	
ENGR/ME 2220	Engineering Dynamics*	3 cr	
ME 3307	Thermodynamics*	3 cr	
CE/ME 3341	Fluid Mechanics*	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 4416	Thermal Power Cycles	3 cr	
ME 4440	Mechanical Vibrations	3 cr	
ME 4465	Thermal Fluid Systems Design	3 cr	
ME 4443	Thermal Fluids Laboratory	1 cr	
ME 4476	Heat Transfer	3 cr	
CE/CS/EE/ENGR/ME 4496A			
	Project Design I	3 cr	

* Course may involve evening examinations.

CE/CS/EE/ENGR/ME 4496B

ME electives***

Free Electives

*** Students are to consult with their advisors and choose courses which will complement their engineer-

Project Design II

3 cr

9 cr

3 cr

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 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

Mechanical **Engineering Courses**

Note: Courses marked with an asterisk (*) following the number may involve evening examinations.

ME 1105 Solid Modeling 2 credits. Introduction to the fundamentals of Solid Modeling. Sketching, features, modeling, assemblies and drawings. PREREQ: MATH 1147. F, S

ME 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. Cross-listed as CE/ENGR 1120. F, S

ME 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. Cross-listed as ENGR 1165. PRE-or-COREQ: MATH 1147. F, S

ME 1166 Symbolic Programming 1 credit. Introduces a symbolic programming language, with emphasis on algebraic, calculus, and linear algebraic manipulations and visualization, with engineering applications. Cross-listed as ENGR 1166. PREREO: MATH 1170. PRE-or-COREO: ENGR/ME 1165. F

ME 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. Cross-listed as ENGR/CE 2210. PREor-COREQ: CE/ENGR 1105 or ME 1105; CE/ ENGR/ME 1120 or NE 1120; PHYS 2211, and MATH 1175. F, S

ME 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 impulsemomentum to solution of problems of force systems acting on moving particles and rigid bodies. PREREQ: CE/ENGR/ME 2210. F, S

ME 2223* Materials and Measurements 3 credits. Structure of materials. Mechanical, electrical and thermal behavior of metals, ceramics, polymers and composite materials. Laboratory measurement of material properties. Three lectures and one lab per week. Cross-listed as ENGR 2223. PREREQ: CHEM 1111, CHEM 1111L, and ENGL 1102. F, S

ME 2224* Materials and Measurements Laboratory 1 credit. Laboratory measurement of material properties. Cross-listed as ENGR 2224. COREQ: ENGR/ME 2223. F, S

ME 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/ME 2220. F

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/ME 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: CE/ENGR/ME 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. Cross-listed as CE 3341. PREREQ: ENGR/ME 2220 and MATH 3360. S

ME 3350* Mechanics of Materials 3 credits. Theories of stresses and strains for ties, shafts, beams, columns and connections. Determination of deflections and the investigation of indeterminate members. An introduction to design. Cross-listed as CE/ENGR 3350. PREREQ: CE 2210 or ME 2210, ME 2223, and ME 2224. F, S

ME 3353 Manufacturing Processes 3 credits. Production techniques and equipment. Casting, molding, pressure forming, metal removal, joining and assembly, automation and materials handling. Fieldtrips. PREREQ: ENGR/ME 2223 and ENGR/ME 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/ME 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 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. Cross-listed as ENGR 4415. PREREQ: CE/ME 3341 and CE/ENGR/ME 3350. D

ME 4416 Thermal Power Cycles 3 credits. Application of thermodynamics to design of systems for conversion of thermal energy to power by various power cycles. PREREQ: ME 3307. 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. PRE-or-COREQ: ME 3323. S

ME 4443 Thermal Fluids Laboratory 1 credit. Measurement of thermal and fluid properties, experiments on fluid flow and heat transfer systems. PREREQ: ME 4476. 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 3307 and 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

ME 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 CE/CS/EE/ENGR 4496A. PREREQ: Approval of application for admission to course. F

ME 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 CE/CS/EE/ENGR 4496B. PREREQ: ME 4496A. S

*Courses marked with an asterisk may involve evening examinations.

Department of Nuclear Engineering

Interim Chair and Professor: Kunze Professors: Brey, Gesell, Imel Research Professor and Director of Institute of Nuclear Science and Engineering: Lineberry Research Assistant Professors: Dunzik-Gougar, Harris Assistant Lecturer: Gansauge Emeritus Faculty: Wilson

Accreditation

The Bachelor of Science (BS) program in Civil Engineering (CE), is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org

The Bachelor of Science (BS) program in Health Physics is accredited by the Applied Sciences Accreditation Commission of ABET, http://www.abet.org

Educational Objectives for Degree Program in Nuclear Engineering

The following Program Educational Objectives have been established:

- Application of Core Knowledge and Technical Competency --- Our graduates will make significant contributions in the nuclear enterprise. either in industry, research, or educational careers as measured by peer recognition, visible leadership roles, and other evidence of professional accomplishments. 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/ME 1165/1167 and ENGR/ME 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, 1111I	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/ME 1165,1167	Structured Programming,	
	and Engineering and	
	Scientific Programming	3 cr
ENGR 2210	Engineering Statics	3 cr
ENGR 2223, 2224	Materials and Measurements	,
	and Laboratory	4 cr
EE 2240	Introduction to	
	Electrical Circuits	3 cr
ENGR/ME 2220	Engineering Dynamics	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 126 credits (minimum) as follows:

First Year

Fall Semester

I was someone.		
CE 1105	Engineering Graphics	2 cr
NE 1120	Introduction to	
	Nuclear Engineering	1 cr
CHEM 1111,1111L	General Chemistry I, and Lab	5 cr
ENGL 1102	Critical Reading and Writing	3 cr
MATH 1170	Calculus I	4 cr
Goal 6, 7, or 8	Humanities Goal Course	3 cr
	1	8 cr

Spring Semester

7		
CS/NE 1181	Structured Programming	2 cr
NE 1181L	Math Problem Solving	1 cr
COMM 1101	Principles of Speech	3 cr
MATH 1175	Calculus II	4 cr
MATH 2240	Linear Algebra	3 cr
PHYS 2211	Engineering Physics I	4 cr
		17 cr

Second Year

Fall Semester

MATH 2275	Calculus III	4 cr
ME 2223, 2224	Materials and Measureme	ents,
	and Lab	4 cr
PHYS 2212	Engineering Physics II	4 cr
Free Elective		3 cr
		18 cr
Spring Semes	ster	
EE 2240	Introduction to	
	Electrical Circuits	3 cr
		_

3 cr

CE/ENGR/ME 2210 Engineering Statics

	Electrical Circuits	3 c
ENGR/ME 2220	Engineering Dynamics	3 c
CE/ENGR/ME 33	550	
	Mechanics of Materials	3 c
NE 3301	Nuclear Engineering I	3 c
MATH 3360	Differential Equations	3 c
	-	15 c

Third Year

Fall Semester

CE 3361	Engineering E	conomics	
	and Manageme	ent	3 cr
ENGR 4421	Advanced Eng	ineering	
	Mathematics I		3 cr
ME 3307	Thermodynam	ics	3 cr
NE 3302	Nuclear Engin	eering II	3 cr
Goals 9-12	Social Science		
	Goal Course	(minimum) 3 cr
		(minimum)	15 cr

Spring Semester

Spring Semes	iter	
EE 4416	Applied	
	Engineering Methods	3 cr
CE/ME 3341	Fluid Mechanics	3 cr
HPHY 4416	Introduction to	
	Nuclear Measurements	3 cr
NE 4446	Analysis and Design of	
	Nuclear Fuel Cycle Systems	3 cr
ENGR Elective		3 cr
		15 cr

Fourth Year

Fall Semester

ME 4476	Heat Transfer	3 cr
NE 4445	Reactor Physics	3 cr
NE 4496A	Project Design I	1 cr
NE or other Engin	eering Elective	3 cr
Goals 9-12	Social Science Goal Course	3 cr
		13 cr

Spring Semester

ME 4443	Thermal Fluids Laboratory	1 cr
NE 4419	Energy Systems	
	and Nuclear Power	3 cr
NE 4447	Nuclear Systems Laboratory	1 cr
NE 4451	Nuclear Seminar	1 cr
NE 4496B	Project Design II	3 cr
Goal 6 or 7	Humanities Goal Course	3 cr
Goals 9-12	Social Science Goal Course	3 cr
		15 cr

Educational Objectives for Degree Program in Health Physics

The Department of Nuclear Engineering offers the A.S. and B.S. options in Health Physics. Health Physics, an applied science, is concerned with the protection of humans and their environment from the possible harmful effects of radiation while providing for its beneficial uses. Health Physics is a multi-disciplined profession that incorporates aspects of both the physical and biological sciences. The B.S. option in Health Physics will prepare the student for work in government, university, medical or industrial settings dealing with such areas as operational radiation safety, regulatory issues and environmental quality. Successful B.S. students receive a Bachelor of Science in Physics and the student's official transcript indicates an emphasis in Health Physics.

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

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.

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, 1112I	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
HPHY 4416	Radiation Detection	
	and Measurement	3 cr
HPHY 4431	Radiation Physics I	3 cr
HPHY 4432	Radiation Physics II	3 cr
HPHY 4433	External Dosimetry	3 cr
HPHY 4434	Internal Dosimetry	3 cr
HPHY 4455	Topics in Health Physics I	2 cr
HPHY 4456	Topics in Health Physics II	2 cr
HPHY 4480	Health Physics Capstone	3 cr
HPHY 4488	Advanced Radiobiology	3 cr
HPHY 4492	Colloquium	2 cr

Bioscience Track

BIOL 2209	General Ecology	3 cr
BIOL 3315	Introduction to Biometry	3 cr
MATH 1160	Applied Calculus	3 cr
PHYS 1111	General Physics I	3 cr
PHYS 1112	General Physics II	3 cr
PHYS 1113,1114	General Physics Laboratory	2 cr

Applied Science Track

MATH 3350	Statistical Methods	3 cr
MATH 1170	Calculus I	4 cr
MATH 1175	Calculus II	4 cr
MATH 2275	Calculus III	4 cr
PHYS 2211,2212	Engineering Physics	8 cr
PHYS 2213,2214	Engineering Physics	
	Laboratory	2 cr

Associate of **Science in Physics** (Health Physics **Emphasis**)

The objective of the Idaho State University program that awards an Associate of Science in Physics 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

HPHY 2217 RCT Internship I (Optional) 3 cr

Fall 1st Year

I un ist icui			
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	
HPHY 2218	Fundamentals of Radiation		
	Protection Physics	3 cr	
PSYC 1101	Introduction to General		
	Psychology	3 cr	
Spring 1st Year			

Spring 1st 1ea	ur		
COMM 1101	Principles of Speech	3 (21
ECON 1100	Economic Issues	3 (:
ENGL 1102	Critical Reading and Writing	3 ()
MATH 1153	Instroduction to Statistics	3 ()
HPHY 2226	Radiation Protection I	3 (:
HPHY 3300	Medical Electronics	2 (:
GOAL 9 or 10A		3 ()

Summer following 1st Year

~ <i>j</i>		
HPHY 2219	RCT Inter	nship II

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
HPHY 2225	Radiation Protection	
	Instrumentation	3 cr
HPHY 2227	Radiation Protection II	3 cr

Spring 2nd Year

PF	IYS	1112	General Physics II	3 cr
PF	IYS	1114	General Physics II Laboratory	1 cr
CF	IEM	[1112, 1112I	General Chemistry II, and Lab	4 cr
HI	PHY	2228	Health Physics Regulations	3 cr
PF	HL 1	1101	Introduction to Philosophy	3 cr
ΒI	OL:	3307	Radiobiology	2 cr
Go	oal 6	or 7		3 cr

Total: 76 or 79 cr

3 cr

Health Physics Courses

HPHY 2217 RCT Internship I 3 credits. Structured Internship. An optional experience taken as a class the summer prior to the start of the program. PREREQ: Acceptance into the program and permission of the program director. Su

HPHY 2218 Fundamentals of Radiation Protection Physics 3 credits. Atomic structure, nuclear structure, fission and fusion, radioactive decay, types of radiation, decay schemes, decay kinetics, interaction of radiation with matter, inverse square, attenuation, shielding, sources of radiation, reactors; accelerators, X-ray machines, units and terminology. F

HPHY 2219 RCT Internship II 3 credits. Structured Internship. A required class taken the summer between the first and second years of the program. PREREQ: Acceptance into the program and permission of the program director. Su

HPHY 2225 Radiation Protection Instrumentation 3 credits. Gas-filled detectors: theory of operation, field applications, calibration and maintenance. Standard laboratory radiation detection instrumentation including solid state detectors, liquid scintillation detectors, scintillators, TLD and film dosimetry, and spectroscopy techniques. PREREQ: HPHY 2218. F

HPHY 2226 Radiation Protection I 3 credits.

Principles of radiation protection; evaluating internal and external exposures and controls, survey, sampling and inspections, analytical techniques and emergency preparedness. PRE-REQ: HPHY 2218. S

HPHY 2227 Radiation Protection II 3 credits.

Personnel dosimetry, prescribed dosimetry and radiation equipment, radiation protection dosimetry, procedures and programs (ALARA), industrial ventilation, PPE, contamination control, shielding, hazard evaluation primer on internal dosimetry and bioassay techniques. PREREQ: HPHY 2218. F

HPHY 2228 Health Physics Regulations 3 credits. Reviewing 10 CFR 19, 20, 30, 35, 835 and portions of 49 CFR dealing with shipment of Radioactive Materials and acquainting students with NCRP, NUREG, REG Guides, ICRP, etc. PREREQ: HPHY 2218. S

HPHY 3300 Medical Electronics 2 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: HPHY 3321. S

HPHY 3321 Radiologic Physics 2 credits.

Basic physics of x-ray production and the interaction of x-rays with matter. Includes topics in medical imaging. Available to juniors in Radiographic Science. PREREQ: PHYS 1100. S

HPHY 4411 Accelerator Health Physics 3 credits. Fundamentals of particle accelerator design and operation. Examination of the potential radiation environment associated with accelerators and health and safety issues of their operation. PREREQ: Senior standing in health physics or permission of instructor. D

HPHY 4412 Environmental Health Physics 3 credits. State-of-the-art applied mathematical techniques for estimating the release, transport, and fate of contaminants in multi-media environmental pathways (air, ground water, terrestrial). Both radiological and non-radiological contaminants will be addressed, with emphasis on radiological contaminants. PREREQ: Permission of instructor. Se

HPHY 4413 Fundamentals of Industrial Hygiene 3 credits. Overview on the recognition, evaluation, and control of hazards arising from physical agents in the occupational environment. The exposure consequences associated with agents of major occupational health concerns are considered. PREREQ: Permission of instructor. Se

HPHY 4416 Introduction to Nuclear Measurements 3 credits. Lecture/laboratory course emphasizing practical measurement techniques in nuclear physics. PREREQ: CHEM 1112, and PHYS 1111 and PHYS 1113 or PHYS 2211 and PHYS 2213. S

HPHY 4417 Industrial Ventilation and Aerosol Physics 3 credits. This course focuses on two distinct subject areas: an elaboration on the details of the ACGIH method of local exhaust-system design, and a study of applied aerosol physics based upon trajectory analysis. PREREQ: Permission of instructor. Se

HPHY 4418 Nonionizing Radiation Protection 3 credits. Occupational safety and health issues of human exposure to non-ionizing radiation. Topics include health concerns and safety strategies developed for extremely low frequency, microwave, radio-frequency, ultraviolet, infrared, laser radiation, and soundwaves. PREREQ: Permission of instructor. Se

HPHY 4419 Radiological Emergency Planning 3 credits. Radiological emergency planning for facilities ranging from reactors and other major nuclear facilities to transportation accidents and smaller-scale nuclear accidents. Topics include planning, co-ordination, "exercises", exposure pathways, modeling, measurement, control, decontamination, and recovery. PREREQ: Permission of instructor. Se

HPHY 4420 Reactor Health Physics 3 credits. Introduction to reactor physics; nuances peculiar to reactor health physics; reactor designs. Critiques of exposure pathways, accidents, decommissioning, contamination control, and emergency planning examine radiation safety approaches within the nuclear fuel cycle. PRE-REQ: Permission of instructor. Se

HPHY 4431 Radiation Physics I 3 credits. Atomic and nuclear structure, series and differential-equation descriptions of radioactive decay, physical theory of the interaction of radiation with matter suitable for the discipline of Health Physics. PREREQ: Permission of instructor. F

HPHY 4432 Radiation Physics II 3 credits. Continuation of HPHY 4431 considering dosimetric quantities/units, theory and technology of radiation detection and measurement, and radiobiology important to an advanced understanding of radiation protection. PREREQ:HPHY 4431 and permission of instructor. S

HPHY 4433 External Dosimetry 3 credits. Lecture course emphasizing external radiation protection including study of point kernel techniques, monte carlo modeling, and NCRP-49 methods. Also discussed are external dosimetry

niques, monte carlo modeling, and NCRP-49 methods. Also discussed are external dosimetry measurement techniques. PREREQ: HPHY 4432 or permission of instructor. F

HPHY 4434 Internal Dosimetry 3 credits. A lecture course emphasizing internal radiation protection including studies of ICRP-2, ICRP26&30, ICRP-60&66, and MIRD methods of internal dosimetry. PREREQ: HPHY 4433 or permission of instructor. S

HPHY 4455 Topics in Health Physics I 2 credits. A lecture/seminar course covering special topics in Health Physics such as state and federal regulations, waste disposal methodology, and emergency procedures. PREREQ: HPHY 4432 or permission of instructor. F

HPHY 4456 Topics in Health Physics II 2 credits. Acontinuation of HPHY 4455. A lecture/seminar course covering special topics in Health Physics such as state and federal regulations, waste disposal methodology, and emergency procedures. PREREQ: HPHY 4432 or permission of instructor. S

HPHY 4480 Health Physics Capstone Course 3 credits. Senior project involving development of an abstract, report, poster and oral presentation with synthesis of the many aspects of the undergraduate Health Physics education into a unified focused end point. PREREQ: Permission of instructor. F, S

HPHY 4488 Advanced Radiobiology 3 credits. An advanced-level class covering aspects of

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. Crosslisted as BIOL 4488. PREREQ: Permission of instructor. AF

HPHY 4490 ABHP Review 3 credits. A course for practicing professionals aimed at the development and improvement of skills. May not be applied to undergraduate or graduate degrees. May be repeated. May be graded S/U. S

Nuclear Engineering Courses

NE 1120 Introduction to Nuclear Engineering 1credit. Introduction to the engineering profession, and to nuclear engineering in particular. F, S

NE 1181 Structured Programming 2 credits. Problem solving methods and algorithm development with an emphasis on programming style. Lecture. Cross-listed as CS 1181. PREREQ: MATH 1147 or equivalent. F, S

NE 1181L Math Problem Solving 1 credit. Instruction in use of mathematical problem solving computer code, such as MATLAB. Lab. PREREQ: MATH 1147 or equivalent. F, S

NE 3301 Nuclear Engineering I 3 credits. Energy sources, distribution and use. Environmental effects. Basics of nuclear energy, understanding table of isotopes, basics of controlled chain reactions and the design of nuclear power reactors. Type of reactors, present and future. PREREQ: MATH 1170. COREQ: PHYS 2212. S

NE 3302 Nuclear Engineering II 3 credits. Nuclear stability and quantifying radioactive decay; types and energies of nuclear reactions; interactions of radiation with matter, including cross sections, attenuation, and scattering. Fission reactor theory, including neutron moderation, criticality, neutron life cycle and neutron diffusion. PREREQ: NE 3301. PRE-or-COREQMATH 3360. F

NE 4419 Energy Systems and Nuclear Power 3 credits. Fundamentals of conventional and renewable energy systems. Electrical supply, transportation, and HVAC. Nuclear power plant "balance of plant" design. PREREQ: ME 3307. COREQ: MATH 3360. 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 Reactor Physics 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. F

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. S

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. S

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

NE 4496A Project Design I 1 credit. Semester one of two semester senior design course sequence. Planning project for second semester. Special topics on professionalism, ethics, and licensing. PREREQ: Approval of application for admission to course. F

Engineering

NE 4496B Project Design II 3 credits. Continuation of design sequence dealing with the design, analysis, implementation, and consequences of senior design project. PREREQ: NE 4496A. S

Department of Geosciences

Chair and Professor: Thackray
Professors: Link, McCurry
Associate Professor: Ames
Research Associate Professor: Glenn
Assistant Professors: Crosby,
Mannel, Leif Tapanila
Research Assistant Professor: Sankey
Assistant Lecturer: Lori Tapanila
Affiliate Faculty: Aly, Cecil, Dehler,
Kuntz, Mahar, Plummer, Sherwin,
Smith, Stephens, Thomas, Van Kirk,

Welhan, Winterfeld GIS TReC 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.
- Graduates will have specific skills for careers in geoscience and related industries, licensure, or to continue in graduate study.
- Graduates will attain employment in geology or related fields or gain admission to graduate programs.

Program-Specific Goals and Objectives

I. Goals

- Graduates will know geoscience materials, principles, and their applications to scientific inquiry and to societal concerns.
- Graduates will understand geologic processes and their expression in the history of the Earth.

II. Objectives

- Provide undergraduate students with coursework, laboratory experiences, field exercises and hands-on opportunities in order to achieve all goals set forth above.
- 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:

required Courses.				
CHEM 1111, 11111	LGeneral Chemistry I	5 cr		
MATH 1147	Precalculus	5 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 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	2 cr		
	OR			
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:

D1 6.41		
GEOL 4452	Sedimentation-Stratigraphy	4 cr
GEOL 4450**	Field Geology	6 cr
	of Life	4 cr
GEOL 4431	Geobiology and the History	
	OR	
GEOL 4430	Principles of Hydrogeology	3 cr
GEOL 4421	Structural Geology	4 cr
	of the Earth's Surface	4 cr
GEOL 3315	Evolution	
GEOL 4420	Principles of Geochemistry	3 cr
GEOL 3314	OR	J (1
GEOL 3313	Earth Materials II	3 cr
GEOL 3313	Earth Materials I	3 cr
GEOL 2210	Earth in Space and Time	3 cr
GEOL III0	Scientists Laboratory	1 cr
GEOL 1110	Physical Geology for	<i>J</i> (1
GEOL 1101	(recommended)	3 cr
GEOL 1101	Physical Geology	
GEOL 1100	OR	3 CI
GEOL 1100	The Dynamic Earth	3 cr
11113 2211, 2212	(recommended)	8 cr
DHVS 2211 *2212	* Engineering Physics	
rn 13 1111, 11112	OR	o ci
	LGeneral Chemistry II, and Lab General Physics I and II	4 cr 6 cr
	General Chemistry I, and Lab	
	Calculus II	
MATH 1170 MATH 1175	Calculus I	4 cr 4 cr
MATH 1147	Precalculus	5 cr

Plus one of the following three courses:

GEOL 4403 4403L Principles of Geographic

	Information Systems, a	ınd Lab3 cr
GEOL 4407	GPS Applications in R	esearch 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

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)

9		,
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,

Plus (3 cr)		
MATH 1170	Calculus I (BS)	4 c
MATH 1160	Applied Calculus (B S)	3 c
MATH 1147	Pre-Calculus (B A)	5 c

MATH 1153 Introduction to Statistics or another approved statistics course

One of the following 5 courses (2 or

HIST 4430	Environmental History	3 CI
POLS 4455	Environmental	
	Politics and Policy	3 c1
SOC 3335	Population and Environment	3 c1
GEOL/PHYS 4410	Science in American Society	2 cr
GEOL/HIST/POLS	S 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. GEOL4415. 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, 1100I	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	

^{**}GEOL 4450 is a 5-week summer field course, usually taken between the junior and senior years.

Geotechnologies core courses— Choose at least 2 courses from this list

GEOL 4405,4405L Principles of Geographic		
	Information Systems, and La	b3 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 10 credits in ago		

technologies, 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)

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 Application	ons	
	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	3 cr	
	OR		
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: 2000through 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: 2000through 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

3 cr
3 cr
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/POL	S 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 laboratoryrelated 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)

Electives		
BIOL 4432	Biochemistry	3 cr
	Environmental Engineering	3 cr
ENVE 4410	Introduction to	
CHEM 3301,3303	Organic Chemistry I, and Lab	4 cr
CHEM 2211	Inorganic Chemistry I	3 cr
CHEM 1112, 1112L	General Chemistry II, and Lab	4 cr
GEOL 4420	Principles of Geochemistry	3 cr

BIOL 2221, 2221L	Introductory Microbiology	
	and Lab	4 cr
CHEM 2232, 2234	Quantitative Analysis and Lab	o4 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
*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)

. 1		
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/POL	S 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 Macroeconomic	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

Minor in Geology

	0	v
GEOL 1100	The Dynamic Earth	3 cr
	OR	
GEOL 1101	Physical Geology	
	(recommended)	3 cr
GEOL 1110	Physical Geology for Scient	ntists
	Laboratory	1 cr
GEOL 2202	Historical Geology	3 cr
GEOL 2210	Earth in Space and Time	3 cr
IN ADDITION:		
Upper Division G	eology electives	
approved by the I	Department	12 cr
	TOTAL: 22 Geosciences	credits

Minor in GeoTechnology

Core Courses:

GEOL 4403,4403I	Principles of Geographic	
	Information Systems, and Lab3 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):

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			

Geology Courses

GEOL 1100 The Dynamic Earth 3 credits. Understanding the Earth as a dynamic system. Explores the interaction between four major earth components: the solid earth, the atmosphere, the ocean and biological communities, including humans. Specific focus on climate change, natural hazards, and Earth resources. 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. PRE-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. PRE-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. PRE-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. PRE-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. PRE-or-COREQ: CHEM 1111 and CHEM 11111. 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, volcaniclastic, and carbonate rocks will be studied. PRE-or-COREQ: GEOL 4411. AF
- GEOL 4415 Quaternary Global Change 3 credits. Use and interpretation of landforms, sediments, and fossil life in the reconstruction of Quaternary events, environment, and climates. PREREQ: Permission of instructor. AS
- GEOL 4416 Global Environmental Change 3 credits. Analysis of the causes and effects of both natural and human-induced environmental change. Integrates knowledge from other Earth Systems Science courses, and examines and analyzes relevant problems in global environmental change using scientific methods. PREREQ: GEOL 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
- **GEOL4421LStructural 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
- GEOL 4439 Principles of Taphonomy 3 credits. Effects of processes which modify organisms between death and the time the usually fossilized remains are studied. Emphasis on vertebrates. Cross-listed as ANTH 4439, BIOL 4439. PREREQ: Permission of instructor. AS
- GEOL 4440 Ore Deposits 3 credits. Nature, mode of occurrence, origin of ores with each type related to a given rock association and as the product of a particular environment. PREREQ: One of: GEOL 3314, GEOL 4452 (recommended), or GEOL 4421. AF
- GEOL 4445 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. Fiveweek summer field camp, applying standard geologic field instruments and geologic concepts to a series of field problems. PREREQ: GEOL 3314 (recommended) or GEOL 4420; GEOL 4421 and GEOL 4452. Su

GEOL 4451 Field Methods in Environmental Sciences 3 credits. Practical application of field methods with an Earth systems focus. Analysis of topographic and vegetational data, hydrologic methods, riverine processes and habitat, and soil characteristics, emphasizing use of GIS, GPS, remote sensing and other geotechnologies. Two-week summer course at Lost River Field Station. PREREQ: GEOL 4403, either GEOL 4415 or GEOL 4416, and BIOL 2209. Su

GEOL 4452 Sedimentation-Stratigraphy 4 credits. Principles of sedimentation from source to diagenesis. The basis of stratigraphic nomenclature, classification, and correlation of rock units. Laboratory covers unconsolidated sediment, hand specimens, and field techniques. PREREQ: GEOL 2210 and ENGL 1102 or permission of instructor. PRE-or-COREQ: CHEM 1111 and CHEM 1111L. COREQ: GEOL 4452L. F

GEOL 4452L Sedimentation-Stratigraphy Laboratory 0 credits. Assignments to apply principles in GEOL 4452. COREQ: GEOL 4452. F

GEOL 4454 Basic Engineering Geology 3 credits. Geology applied to civil engineering projects; rock engineering classification systems and geotechnical parameters such as joint set orientation, ground behavior and underground construction. Preparation of baseline geotechnical reports. 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

GEOL 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 and discussion sections. Cross-listed as HIST 4471 and POLS 4471. AS

GEOL 4475 Essentials of Geomechanics 3 credits. Essentials of rock fracture relevant to geological engineering including stress and strain, properties and classification of rock masses, rock fracture mechanisms. Cross-listed as CE 4475. PREREQ: GEOL 4421 or CE/ENGR/ME 3350. D

GEOL 4476 Engineering Geology Project 1 credit. Team projects studying actual problems in engineering geology. Cross-listed as CE 4476. PREREQ: GEOL 4454 or CE 4454. D

GEOL 4480 Special Topics in GIS 1-3 credits. Visual Basic programming for GIS. PREREQ: GEOL 4403 and GEOL 4403L and permission of instructor. F, S

GEOL 4481 GeoTechnology Internship 1-3 credits. Choose a project with either Natural Resource or municipal GIS emphasis and work with real-world data at the Internship's off-campus location. Projects focus on using/creating geotechnical data. PREREQ: GEOL 4403 and GEOL 4403L or permission of instructor. F, S

GEOL 482 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

GEOL 4493 Senior Thesis 1-4 credits. This is a course supervised by a committee of at least two faculty members, approved by the chairperson(s) of the department(s) involved. The thesis topic may be interdisciplinary, with credits conferred by one or more departments. PREREQ: 90 credits and invitation by (or permission of) department chairperson(s). F, S

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

Department of Mathematics

Chair and Professor: Fisher
Assistant Chair and Professor: Laquer
Professors: 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 mathematics, develop a sense for exploring mathematics, and learn to read, write, and present mathematics.
- 6. Mathematics majors become acquainted with the major branches of the discipline; learn to read and write mathematics; and develop the mathematical skills and general knowledge necessary for employment or for graduate work in mathematics or other fields.

Mathematics Core

All bachelor's degrees offered in the Department of Mathematics have a common core consisting of the following six courses (21 credits):

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, El	NGR/ME 1165 Structured I	Program-

The two courses, ENGR/ME 1165 Structured Programming and CS/ME 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	s 3 cr

Plus one of the following courses:

	me romo ming courses.	
MATH 3327	Vector Analysis	3 cr
MATH 3343	Modern Geometry I	3 cr
MATH 3352	Introduction to Probability	3 cr
MATH 3362	Introduction to Complex	
	Variables	3 cr

Plus 12 more credits of 4000-level mathematics coursework, which includes completing two of the following sequences:

MATH 4407,4408 Modern Algebra I, II	6 cr
MATH 4423,4424 Introduction to	
Real Analysis I, II	6 cr
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	3 cr	
MATH 4424	Introduction to Real Analysis II	1 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	s3 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	V
* The number of credits required for t	the General
Education requirements varies depend	ding on the stu-
dent's performance on proficiency or	placement tests
in English, foreign languages, and mo	athematics.

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 CH	REDITS: 17-2	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.

-			-
I٢	a	:k	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 CH	REDITS: 2	21 cr
Electives to bring	total to 64 cr vari	iable
· ·	TOTAL: 0	54 cı

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	3 (1
	to Numerical Analysis	3 cr
MATH 4465	Partial Differential Equation	s 3 cr

Minor in Mathematics

Required Courses:

Mathematics Core (See above) 21 cr

Additional courses (6 credits)

Choose six credits (two courses) from the following list:

MATH 3327	Vector Analysis	3 cr
MATH 3343	Modern Geometry	3 cr
MATH 3352	Introduction to Probability	3 cr
MATH 3360	Differential Equations	3 cr
MATH 3362	Introduction to	
	Complex Variables	3 cr
MATH 4407	Modern Algebra I	3 cr
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)		
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 credi	t course, repeated for up to 3 cre	edits

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: S in MATH 0015, a Math ACT score of 16 or higher, an SAT score of 390 or higher, or 46 or higher on the Pre-algebra section (MAPL 1). F, S, Su

MATH 1108 Intermediate Algebra 3 Credits. Topics in algebra, with an emphasis on solving equations and inequalities. Systems of linear equations; quadratic equations and the quadratic formula; polynomial, absolute value, rational, and radical equations and inequalities. Radical and rational exponents. Parabolas, distance formula and circles. PREREQ: S in MATH 0025, a Math ACT score of 19 or higher, an SAT score of 460 or higher, or 45 or higher on the Algebra section (MAPL 2). F, S, Su

MATH 1123 Mathematics in Modern Society 3 credits. Survey of applications of mathematics to real-world problems. Topics from graph theory, management science, political science, statistics, geometry, and computer science. PREREQ: MATH 0025. Satisfies 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 170, 175, 275. 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. S

MATH 3355 Operations Research 3 credits. Deterministic problems in operations research oriented towards business. Includes linear programming, transportation problems, network analysis, PERT, dynamic programming, and elementary game theory. PREREQ: MATH 1130 or MATH 2240, or permission of instructor. AF

MATH 3356 Operations Research II 3 credits. Probabilistic models oriented towards business are treated. Selections from stochastic processes, Markov chains, queuing theory, inventory theory, reliability, decision analysis and simulation. PREREQ: MATH 3355. AS

MATH 3360 Differential Equations 3 credits. Theory and applications of ordinary differential equations. PREREQ: MATH 1175; MATH 2275 recommended. F, S

MATH 3362 Introduction to Complex Variables 3 credits. Introduction to the study of functions of a complex variable including the algebra and geometry of complex numbers, analytic functions, power series, integral theorems, and applications. PREREQ: MATH 2275. D

MATH 4403 Survey of Combinatorics and Graph Theory 3 credits. Enumeration techniques, including generating functions. Applications. Introductory graph theory. PREREQ: MATH 1175 and MATH 2240.

MATH 4404 Topics in Combinatorics and Graph Theory 3 credits. Continuation of MATH 4403. Application of algebraic, analytic, and/or probabilistic methods to combinatorial, graph-theoretic, and algorithmic problems. PRE-REQ: MATH 4403 or permission of instructor. D

MATH 4406 Advanced Linear Algebra 3 credits. Advanced linear algebra with a strong emphasis on proof. Real and complex vector spaces, linear transformations, polynomials associated to matrices, determinants, canonical forms, inner product spaces. PREREQ: MATH 2240. S

MATH 4407 Modern Algebra I 3 credits. Rings, fields, groups, algebras, and selected topics in abstract algebra. PREREQ: MATH 2240 and MATH 2287. F

MATH 4408 Modern Algebra II 3 credits. Rings, fields, groups, algebras, and selected topics in abstract algebra. PREREQ: MATH 4407. S

MATH 4421 Advanced Engineering Mathematics I 3 credits. Analysis of complex linear and nonlinear engineering systems using advanced techniques, including Laplace transforms, Fourier series and classical partial differential equations. 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. $\,\mathrm{S}$

MATH 4435 Elementary Number Theory 3 credits. Diophantine equations, prime number theorems, residue systems, theorems of Fermat and Wilson, and continued fractions. PREREQ: MATH 4407. D

MATH 4441 Introduction to Numerical Analysis I 3 credits. Introduction to numerical techniques for solving problems dealing with nonlinear equations, systems of linear equations, differential equations, interpolation, numerical integration, and differentiation. PREREQ: MATH 2240, MATH 3326, and MATH 3360 or permission of instructor. F

MATH 4442 Introduction to Numerical Analysis II 3 credits. Extension of MATH 4441 for students who wish to pursue more advanced techniques with emphasis on analysis. Typical topics covered include numerical methods applied to partial differential equations, integral equations, and in-depth treatment of topics covered in MATH 4441. PREREQ: MATH 4441. S

MATH 4444 Modern Geometry II 3 credits. Transformation groups. Topics from hyperbolic, projective, and other geometries. S

MATH 4450 Mathematical Statistics 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

Department of Physics

Interim Chair and Professor: Shropshire Professors: Dale, Wells

Associate Professors: Cole, Keeter, Tatar Research Associate Professors:

Chouffani, Dimitrov, Forest, Hunt Visiting Assistant Professor: Calderón 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, Neischmnidt,
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 handson 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,
- 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

MATH 1170

The following courses are required in addition to the General Education Requirements for the B.A. degree:

MAIH II/U	Calculus I	4 C1
MATH 1175	Calculus II	4 cı
MATH 2275	Calculus III	4 cı
MATH 3360	Differential Equations	3 cı
At least 24 cre	dits of Physics, inc	luding:
PHYS 2211-2212	Engineering Physics	8 cı
	OR	

6 cr

PHYS 1111-1112 General Physics

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, 1111I	General Chemistry I, and Lab	5 cr
	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	
	Physis 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 4	000-level PHYS credits	

Physics Minor

MATH 1170	Calculus I	4 c
MATH 1175	Calculus II	4 c
MATH 2275	Calculus III	4 c
MATH 3360	Differential Equations	3 c
PHYS 2211,2212	Engineering Physics	8 c
PHYS 3301	Modern Physics	3 c
PHYS 4403	Advanced Modern Physics	3 c
IN ADDITION:	Physics electives approved	
	by the department	4 c

of Science and Engineering

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, 1112I	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

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. PRE-REQ: 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

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 3301 Modern Physics 3 credits. A onesemester 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 3325 Introduction to Weather and Climate 3 credits. Introduces the principles that govern weather and climate, including movements of air masses, genesis of storms, creation of frontal systems. Provides insight into forecasting techniques and the effects of weather and climate on people and societies. PREREQ: CHEM 1112, CHEM 1112L, PHYS 1112 or permission of instructor. F, S, Su,W

PHYS 4400 Practicum in Physical Science 2 credits. Emphasizes design, set-up, equipment, operation, and administration of physics teaching laboratories, demonstrations and activities. Introduces pre-designed experiments plus the design and maintenance of lab equipment. Ideal for Education majors. PREREQ: permission of instructor. S

PHYS 4403 Advanced Modern Physics I 3 credits. Study of the elementary principles of quantum mechanics and an introduction to atomic, solid state and nuclear physics. Quantum mechanics will be used as much as possible. PREREQ: MATH 3360 or equivalent, and PHYS 3301. S

PHYS 4404 Advanced Modern Physics II 3 credits. Study of the elementary principles of quantum mechanics and an introduction to atomic, solid state and nuclear physics. Quantum mechanics will be used as much as possible. PREREQ: PHYS 4403. F

PHYS 4405 Advanced Physics Laboratory I2 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. Acourse in Nuclear Physics with emphasis upon structural models, radioactivity, nuclear reactions, fission and fusion. PREREQ: Knowledge of elementary quantum mechanics and differential equations or permission of instructor. AF

^{*} 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 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

PHYS4462 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

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 Skills USA.

Admission to the College of **Technology**

Prospective students are admitted to College of Technology programs based on their interests, aptitudes, and potential to succeed in specific programs of instruction. The College of Technology is an open enrollment college and allows anyone who needs education services entrance at some level (Idaho State Board of Education, III. Q, 9a). Some programs have specific entry requirements in addition to the general requirements. Part-time enrollment in some regular preparatory programs is possible. Counselors are available to assist students in choosing programs and completing applications. For additional information, contact the College of Technology's Student Services Office at (208) 282-2622.

Admission Steps

1. Complete an application for admission at apply isu.edu and pay fees online. Be sure to click on the Professional Technical Application and select your program choice. If you are applying for the Associate Degree Registered Nurse program, the Respiratory Therapy pro-

- gram 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-
- 6. Apply for financial aid if needed.

Admission Requirements

Because some programs fill several months in advance, all necessary documentation should be completed and returned to respective offices as early as possible. If applications are late, processing may be delayed. Students may appeal admission decisions through a petition process.

Upon completion of fourteen (14) College of Technology credits with a 2.0 GPA or better, students are eligible for transfer to an academic major.

The following professional/technical standards were established by the Idaho State Board of Education and implemented in April 2003:

Professional-Technical Admission Standards

Standards for high school graduates of 1997 and after must meet the following conditions for Regular Admission:

1. Graduate from high school with a 2.0 GPA.

- 2. Complete a placement examination (ACT, SAT, COMPASS). Scores will be used to determine placement eligibility for specific programs.
- 3. Complete specific high school coursework as defined in the table below.

Subject, and Required Courses	High School Credits
Mathematics Algrbra 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 con- nected 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.

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/studentservices/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 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 Cou	rses:		
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: 7	75	cr

Associate of Applied Science Degree: Airframe and **Powerplant**

(5½ Semesters)

Required Cour	ses.	
AIRM 0101	Mathematics	3 cr
AIRM 0102	Aircraft Drawing	1 cr
AIRM 0102	Truss Structures	3 cr
AIRM 0103	Materials and Processes	7 cr
AIRM 0105	Sheetmetal Structure	6 cr
AIRM 0103	Forms and Regulations	3 cr
AIRM 0107	- C	
	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
	4 D 4	

General Education Requirements:

ENGL 1101	English Composition	on 3 cr
Goal 2		3 cr
Goal 3		3 cr
Goals 6, 7, 9, 10	A, 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

Theory and lab practice covering aircraft; ground operation; assembly and rigging; hardware; care, properties, and uses of various materials; aircraft finishes and the various methods of finish application. F

AIRM 0105 Sheetmetal Structures 6 credits. Theory and lab practice in maintenance and repair of metal aircraft. S

AIRM 0107 Forms and Regulations 3 credits. Theory and lab practice in interpretation and use of the various forms and regulations pertaining to aircraft maintenance. F

AIRM 0108 Basic Electricity 3 credits. Theory and lab practice in principles and uses of electricity in the various circuits and controls of the aircraft. S

AIRM 0109 Fluid Systems 5 credits. The students will learn how to identify the different fluids that are used in the hydraulic systems and the care and precautions that are necessary for the safe handling of these fluids. The students will be instructed in the operation of systems and be able to troubleshoot the systems. S

AIRM 0110 Landing Gear Systems 4 credits. Theory and lab practice in operation, maintenance, and repair of landing gear systems of the aircraft. S

AIRM 0111 Utility Systems 3 credits. Theory and lab practice in operation, maintenance, and repair of utility systems such as position and warning, aircraft instruments, climate controls, communication and navigation, ice and fire protection, and miscellaneous systems. Su

AIRM 0112 Electrical Systems 5 credits. Theory and lab practice in operation, maintenance, and repair of electrical systems in aircraft. Su

AIRM 0120 Structural Welding 2 credits. Theory and lab practice in gas welding of aircraft structural components. F

AIRM 0221 Basic Reciprocating Engines 3 credits. Design, construction, and operation of radial, opposed, and in-line engines; disassembly, assembly, and run-up of various types of engines. F

AIRM 0222 Advanced Reciprocating Engines 2 credits. Repair and overhaul of reciprocating engines, installation and test. F

AIRM 0223 Basic Turbine Engines 3 credits. Design, construction, and operation of gas turbine and turbo-prop engines. S

AIRM 0224 Advanced Turbine Engines 2 credits. Repair and overhaul of turbine engines. S

AIRM 0225 Engine Lubrication Systems 2 credits. Design and operation of oil system; its repair and installation. S

AIRM 0226 Induction and Exhaust Systems 2 credits. Design and operation of air intake, exhaust on reciprocating and jet engines. F

AIRM 0227 Engine Fuel Systems 3 credits. Design and operation of carburetor, fuel injection, and hydromechanical fuel systems on reciprocating and jet engines. F

AIRM 0228 Ignition and Cooling Systems 5 credits. Design, operation, and overhaul of magneto ignition and capacitor discharge ignition, and cooling systems. F

AIRM 0229 Engine Electrical and Instrument Systems 4 credits. Design, operation, and overhaul of the various electrical components and system indicators used on aircraft engines. S

AIRM 0230 Engine Propellers 4 credits. Design, operation, overhaul, and installation of propellers and components. S

AIRM 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 lettergraded. PREREQ: Permission of instructor. D

Associate Degree Registered Nurse Program

Director 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:

- a. All students must first be admitted to the University. For information on university admission, contact the College of Technology Student Services office at (208) 282-2622.
- b. Completion of the following prerequisite courses, or equivalents, with a grade of "C" or better: ENGL 1101 and 1102; PSYC 1101; NTD 2239 or 3340 (NTD 3340 preferred); BIOL 2221 and 2221L or equivalent, 3 credits from 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.
- A cumulative grade point average (GPA) of at least 2.5 for all post-secondary education, is required.
- d. Active, unrestricted licensure to practice as an LPN in the State of Idaho.
- e. Current CPR certification (AHA or American Red Cross only).
- f. Proof of successful completion of IV Therapy course.
- g. Proof of current immunization and verfiied good health status per program policy, upon conditional acceptance into the program.
- h. Background check and drug screening per department policy, upon conditional acceptance into the program.

Students are admitted to the ADRN program once per year using a competitive application process. Upon completion or near-completion of the above criteria, submit a program application and application fee to Student Services, College of Technology (208) 282-2622. Once application is submitted and complete, and eligibility verified, the student will take a nationally-normed program entrance examination. This exam score is combined with cumulative post-secondary GPA, years of LPN experience, and documented adherence to nursing standards (reference) to rank-order applicants for each admission class.

For a Program Information Packet showing course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to http://www.isu.edu/ctech/registerednurse.shtml.

This program requires students to achieve certain grades in order to advance each semester. Specific information is available in the program's student handbook.

Associate of Science Degree: Nursing

41/2 Semester Program, including prerequisite courses

This is an academic Associate of Science degree program that provides classroom, laboratory, and clinical practicum instruction which prepares graduates to write the NCLEX-RN examination. Successfully passing this examination is a prerequisite for registered nurse licensure. Graduates from this program may articulate into programs offering B.S. and/or M.S. degrees in Nursing.

The courses listed below are specific to Idaho State University. Equivalent courses from other institutions will be individually evaluated and transferred in as appropriate.

General Education and Prerequisite Courses

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	3 cr
	(Goal 1)	
NTD 2239	Nutrition	3 cr
	OR	
NTD 3340	Nutrition for Health Professio	nals
	(preferred)	3 cr
PSYC 1101	Introduction to General	
	Psychology (Goal 12)	3 cr
Goal 3 (MATH 11:	53 preferred)	3 cr
Two of Goals 6, 7,	8	6 cr
One of Goals 9, 10	A or 10B (minimum)	3 cr
Goal 11		3 cr

Program-Specific Courses

rrogram of	octific Courses	
ADRN 2210	Nursing Transition	2 cr
ADRN 2211	Mental Health Nursing	3 cr
ADRN 2212	Clinical Foundations	
	of Nursing III	2 cr
ADRN 2220,222	20LHealth 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
MINI	MUM 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 (S	pring)	
ADRN 1105	Nursing Applications	1 cr
BIOL 3302,3302L	Anatomy and Physiology,	
	and Lab	4 cr
ENGL 1102	Critical Reading and Writing	3 cr
NTD 2239	Nutrition	3 cr
	OR	
NTD 3340	Nutrition	
	For Health Professionals	
	(preferred)	3 cr
Goal 3 (MATH 11:	53 preferred)	3 cr
One of Goals 9, 10	A, or 10B* (minimum)	3 cr
*(if 10B is comple	ted, 8 cr will be required)	
•	Total for Spring Semester: 1	7 cr

After acceptance into program:

Semester 3 (Summer)

ADRN 2210	Nursing Transition	2 cr
ADRN 2211	Mental Health Nursing	3 cr
ADRN 2212	Clinical Foundations	
	of Nursing III	2 cr
	Total for Summer Semester:	7 cr

Semester 4 (Fall)

ADRN 2220,2220I	Health Assessment, and Lab	3 cr
ADRN 2230	Medical and Surgical Nursing	III3 cr
ADRN 2231	Clinical Foundations	
	of Nursing IV	4 cr
Two of Goals 6, 7,	8	6 cr
	Total for Fall Semester:	16 cr

Semester 5 (Spring)

ADRN 2232	Family Nursing	3 cr
ADRN 2233	Medical and Surgical	
	Nursing IV	3 cr
ADRN 2245	Clinical Foundations	
	of Nursing V	4 cr
Goal 11		3 cr
	Total for Spring Semest	er: 13 cr

ADRN Courses

ADRN 1105 Nursing Applications 1 credit. Hands-on experience in nursing-related applica-

tions that prepare candidates for distance-based nursing education. PREREQ: Conditional admission (or alternate) to program. S

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 evidencebased decision-making are stressed. PREREQ: ADRN 1105 and admission to program. Su

ADRN 2211 Mental Health Nursing 3 credits.

Nursing assessment and care of the patient and family experiencing psycho-social and mental health disorders within acute, chronic, and community settings. PREREQ: Admission to program. Su

ADRN 2212 Clinical Foundations of Nursing

III 2 credits. Clinical experiences for nursing care within a variety of acute and communitybased settings guide the development of the problem solving process in nursing. The focus of this course is on skilled nursing and mental health nursing care, including therapeutic use of self. COREQ: ADRN 2210 and ADRN 2211. Su

ADRN 2220 Health Assessment 2 credits. Health assessment of all ages, interpretation of data, extended development of critical thinking skills; developing patient care based on clinical findings. PREREQ: ADRN 2210. COREQ: ADRN 2220L and ADRN 2230. F

ADRN 2220L Health Assessment Lab 1 credit. Practical experience in health assessment of all ages; interpretation of clinical data in simulated situations; planning and prioritizing care based

on clinical findings. PREREQ: ADRN 2210. COREQ: ADRN 2220 and ADRN 2231. F

ADRN 2230 Medical and Surgical Nursing III 3 credits. Professional nursing care of individuals and groups with acute and chronic health events requiring nursing assessment and intervention within institutional and community care facilities. PREREQ: ADRN 2212. COREQ: ADRN 2231. F

ADRN 2231 Clinical Foundations of Nursing IV4 credits. Clinical experiences for nursing care within a variety of acute and community-based settings guide the development of knowledge and skills. PREREQ: ADRN 2212. COREQ: ADRN 2230. F

ADRN 2232 Family Nursing 3 credits. Study of conditions or complications of women's health, pregnancy, peri-partum, plus newborn, child, and family assessment; nursing care and prioritization of interventions for the child-bearing, childrearing family are addressed. PREREQ: ADRN 2230. COREQ: ADRN 2245. S

ADRN 2233 Medical and Surgical Nursing IV 3 credits. The three roles of the nurse are established within the framework of legal and ethical professional nursing practice. Nursing assessments and interventions in the high-acuity patient are addressed. PREREQ: ADRN 2230. COREQ: ADRN 2245. S

ADRN 2245 Clinical Foundations of Nursing V 4 credits. Clinical practicum for the professional nursing care of high-acuity patients and their families. Nursing leadership is implemented along with critical thinking and evidence-based decision-making for persons and groups of persons experiencing health events. PREREQ: ADRN 2231. COREQ: ADRN 2233. S

ADRN 2296 Independent Study 1-8 credits.

Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U or may be letter graded. PREREQ: Permission of instructor. D

Automotive Collision Repair and Refinishing

(2½ to 4 Semesters)

Program Coordinator and 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

(21/2 Semesters)

Required Courses:

ACRR 0146	Introduction to Automo	tive
	Collision Repair	
	and Refinishing	8 cr
ACRR 0147	Minor Collision Repair	and
	Refinishing	8 cr
ACRR 0210	Advanced Collision Rep	pair I 8 cr
ACRR 0211	Advanced Collision Rep	pair II8 cr
ACRR 0212	Advanced Collision	
	Repair III	8 cr
	TOT	AL: 40 cr

Technical Certificate: Automotive Refinishing

(2½ Semesters)

Required Courses:

required	Courses.	
ACRR 0146	Introduction to Collision	
	and Refinishing	8 cr
ACRR 0147	Minor Collision Repair and	
	Dofinishing	9 ar

ACRR 0160	Advanced Refinishing I	8 c
ACRR 0161	Advanced Refinishing II	8 c
ACRR 0162	Advanced Refinishing III	8 c
	TOTAL:	40 c

Advanced Technical Certificate: Automotive Repair and Refinishing

(4 Semesters)

Required Courses:

Introduction to Automotive
Collision Repair
and Refinishing 8 cr
Minor Collision Repair and
Refinishing 8 cr
Advanced Refinishing I 8 cr
Advanced Refinishing II 8 cr
Advanced Refinishing III 8 cr
OR
Cooperative Work Experience 8 cr
Advanced Collision Repair I 8 cr
Advanced Collision Repair II8 cr
Advanced Collision Repair III 8 cr
OR
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 Automotive Collision Repair	
	and Refinishing	8 cr
ACRR 0147	Minor Collision Repair and	
	Refinishing	8 cr
ACRR 0160	Advanced Refinishing I	8 cr
ACRR 0161	Advanced Refinishing II	8 cr
ACRR 0162	Advanced Refinishing III	8 cr
	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	on 3 cr
Goal 2		3 cr
Goal 3		3 c1
Goals 6, 7, 9, 10	A, 11 or 12	3 c1
Goal 2-12		4 cr
		$TOTAI \cdot 80 ct$

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 Repair and Refinishing 8 credits. Theory and practice to use and care for body tools, fasteners; operation of oxyacetylene and M.I.G. welding equipment including brazing and cutting. Also, the fundamentals of basic metal finishing including the use of plastic filler. Safety rules and procedures will be emphasized. "Right to know" laws, OSHA, and hazardous material are stressed. PREREQ: Must have tools

required or ordered within one week of beginning

of class. F, S, Su

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 lettergraded. 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	s 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	s 8 cr

General Education Requirements:

ENGL 1101	English Com	position	3 cr
Goal 2	_	-	3 cr
Goal 3			3 cr
Goal 6, 7, 9, 10A	A, 11 or 12		3 cr
Goals 3-12		(mininur	n) 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 conditioning 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 cred-

its. 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

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 lettergraded. 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/ctech/buildingconstruction.shtml.

This program requires students to achieve certain grades in order to advance each semester. Specific information is available in the program's student handbook.

Advanced Technical Certificate: Building Construction

(4 Semesters)

R	equired	Courses:	

Required Courses:			
BCT 0110	Hand Tools, Power Hand Too	ols,	
	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
	TOTAI	: 64 cr

Associate of Applied Science Degree: Building

Construction
(4 Semesters)

Required Courses:

BCT 0110	Hand Tools, Power Hand Too	ols,
	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 Educ	ation Requirements.	

General Education Requirements

Other ar Edu	cation requirem	ciits.
ENGL 1101	English Composition	3 cı
Goal 2		3 cı
Goal 3		3 c
Goals 6, 7, 9, 10A	A, 11 or 12	3 c
Goals 2-12		4 cı
		Total: 80 c

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 woodworking 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. PREREO: 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

BCT 0210 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

BCT 0212 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 lettergraded. PREREQ: Permission of instructor. D.

Business Information

2 to 5 Semester Program Options

Coordinator and Assistant Professor:

Enos

Assistant Professor: Spinner Master Instructor: Larson Advanced Instructor: Warren

Four Certificate options, an Advanced Technical Certificate, three Associate of Applied Science Degrees and a Bachelor of Applied Technology Degree are

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.

Administrative professionals manage and maintain all aspects of an office environment. Extensive software skills in Microsoft Word, Excel, Access, and PowerPoint are required, as well as Internet research abilities and strong communication skills. Administrative office assistants need flexibility, excellent interpersonal skills, project coordination skills, and the ability to work well with all levels of internal management and staff, as well as outside clients and vendors. Accounting technicians perform a combination of calculating, posting, and verifying duties involving financial data using spreadsheets, database, and accounting software. They handle accounting for sole proprietorships, partnerships, and corporations by electronically processing accounting transactions, using j9ournals and ledgers; preparing financial statements; and processing payroll. Administrative and accounting support professionals are in demand. According to the Idaho Occupational Employment and Wage Survey 2010, salaries for Office and Administrative Support Occupations in Bannock and Power counties averaged \$13.40/hour; the salary for Administrative Assistants averaged \$16.09/hour.

Medical office personnel in a medical office environment may schedule appointments, greet patients, process insurance claims, transcribe medical reports, plan medical meetings and operate business equipment. Work opportunites 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 repsonsibilities 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

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:

1109411104	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: 3	36 cr

Technical Certificate: Administrative Technology

3 Semesters

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	g3 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: 4	12 cr

Post-secondary 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: 2	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: 3	9 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 Edu	cation 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: 7	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	l 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
BI 0173	Spreadsheets	3 cr
BI 0174	Records and Database	
	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	(minimu	m) 4 cr
	TOTAL	: 60 cr

Associate of Applied Science Degree: Legal Office Technology

(4 to 5 Semesters)

Required Courses

Required Cou	irses:	
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	ı3 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: 65-6	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 onsite work experience modalities. Graded S/U. PREREQ: Permission of instructor. F, S, Su

BI 0118 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

BI 0141 Keyboarding 1 credit. This is a tutorial class covering the keyboard and basic typing skills. Develops the student's ability to type at a minimum rate of 25 nwpm. Graded S/U. F, S, Su

BI 0144 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

BI 0153 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

BI 0172 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: BI0170 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

Civil Engineering Technology

(4 Semesters)

Program Coordinator and Master Instructor: Merrill Instructor: Vahsholtz

One Advanced Technical Certificate, one Associate of Applied Science Degree, 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.

 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:

required Co	11 303.	
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 Technolog	y
	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		
	Land Surveying Practices	4 cr

General Education Requirements:

ENGL 1101	English Composition	3 cr
COMM 1101	Principles of Speech	3 cr
	TOTA	L: 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 0115	Materials Testing and		
	Specifications I	2 cr	
CET 0120	Applied Mathematics II	4 cr	
CET 0121/GEMT	1121		
	Civil Engineering Technolog	y	
	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			
	Route Survey and Design	6 cr	
CET 0217/GEMT			
	State Plane Coordinates	4 cr	
CET 0220	Engineering Mechanics	3 cr	
CET 0225	Materials Testing and		
	Specifications IV	3 cr	
CET 0226/GEMT			
	Land and		
	Construction Surveys	6 cr	
CET 0227/GEMT			
	Land Surveying Practices	4 cr	

General Education Requirements:

General Eu	acanon requiremen	
ENGL 1101	English Composition	3 cr
Goal 2		3 cr
Goal 3		3 cr
Goals 6, 7, 9, 10	A, 11 or 12	3 cr
PHYS 1101, 101	L Elements of Physics, an	d Lab4 cr
	TOT	AI - 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), leveling (differential and profile), theodolites and total stations. Field projects include alignment stakeout, profile leveling, closed traverse, and an introduction to survey coordinate geometry applications. Cross-listed as GEMT 1112. F

CET 0115 Materials Testing and Specifications I 2 credits. Use of materials testing equipment to conduct test procedures and to verify specifications for soils and aggregates used in construction. Prepares student for WAQTC aggregate qualifications examination. F

CET 0120 Applied Mathematics II 4 credits.

A continuation of CET 0110 Applied Mathematics I, studying oblique triangle trigonometry and vectors; radians, arc length, and rotations; exponents and radicals; quadratic equations; systems of linear equations; ratio, proportion, and variation, with emphasis on areas relating to Civil Engineering Technology. PREREQ: CET 0110. S

CET 0121 Civil Engineering Technology Drafting 3 credits. Civil Engineering Tech-

Drating 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 WAOTC 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 WAOTC embankment and base in-place density qualification examinations. PREREQ: CET0125. COREQ: CET0216 and CET0217.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

CET 0217 State Plane Coordinates 4 credits. Study of Idaho state plane coordinate system, resections, and radial surveying. Understanding USGS quad maps, magnetic declination, and map projections as they relate to the state plane coordinate system; basic GPS theory and operation in surveying practices. PREREQ: CET 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. PREREO: 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. 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 lettergraded. PREREQ: Permission of instructor. D

Computer Aided Design Drafting Technology

(9 sessions)

Coordinator and Senior 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 computeraided-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 I	I 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 II	
CADD 0132	Drafting Technology	0.
	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	2 01
	Technology Laboratory	3 cr
CADD 0215	Drafting Applied Science II	2 cr
CADD 0221	Electrical Drafting	
	Technology Theory	2 cr
CADD 0222	Electrical Drafting	2 01
0.155 0222	Technology Laboratory	5 cr
CADD 0232	Mechanical Design Technolo	
0.155 0202	Laboratory	3 cr
CADD 0235	Mechanical Design Technolog	
TGE 0158	Employment Strategies	2 cr
		_ 01
General Edu	cation Requirements:	

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 Cou	irses:	
CADD 0101	Drafting Technology Theory I	2 cr
CADD 0102	Drafting Technology	
	Laboratory I	3 cr
CADD 0111	Drafting Technology Theory I	I 2 cr
CADD 0112	Drafting Technology	
	Laboratory II	3 cr
CADD 0121	Mechanical Drafting Technol	logy
	Theory I	2 cr
CADD 0122	Mechanical Drafting Technology	
	Laboratory I	3 cr
CADD 0123	Drafting Applied Geometry	
	and Trigonometry	2 cr

ENGL 1101	English Composi	tion	3 cr
COMM 1101	Principles of Spec	ech	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 II3 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. COREO: 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 0212. 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 lettergraded. 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:

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 Language4 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 E	ducation Requirements:

CSDT Courses

Goals 6, 7, 9, 10A, 11 and 12

ENGL 1101

Goal 2

Goal 3

Based on keyboarding skills, students may be required to take a 1 credit Keyboarding class in order to meet the competencies of the program.

English Composition

3 cr

3 cr

3 cr

TOTAL: 84 cr

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

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

CSDT 0220 Internet Programming 5 credits.

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. F

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. Onthe-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 lettergraded. 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 II2 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 0261	CNC Introduction To Theory	2 cr
MACH 0265	Introduction	
	to CNC Machining Practice	6 cr
COMM 1101	Principles of Speech	3 cr
ENGL 1101	English Composition	3 cr
TGE 0158	Employment Strategies	2 cr
	TOTAL: 7	'2 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	y
	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 0261	CNC Introduction To Theory	2 cr
MACH 0265	Introduction	
	to CNC Machining Practice	6 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
	TOTA	I · 80 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	y
	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 0261	CNC Introduction To Theory	2 cr
MACH 0265	Introduction to	
	CNC Machining Practice	6 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	on 3 cr
Goal 2		3 cr
Goal 3		3 cr
Goal 5		4 cr
Goals 6, 7, 9, 10	A, 11 or 12	3 cr
		TOTAL: 90 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

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. COREO: 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 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 0265 Introduction To CNC Machine Practice 6 credits. A hands-on introductory course in the operation of Computer Numerical Control (CNC) vertical milling centers. Includes the safety practices, maintenance, setup and operation of CNC Mills. PREREQ: MACH 0250. F, S

MACH 0270 CNC Machining Practice I 4 credits. An introductory course in basic computer skills, programming, set-up and operations of computer numerically controlled machine tools. PREREO: 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 MACH0271.PREREQ: MACH0271.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

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 lettergraded. PREREQ: Permission of instructor. D

Cosmetology

(3½ Semesters and/or ½ Session) Coordinator and Advanced Instructor:

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.

Introduction Principles and	
Practice of Cosmetology	8 cr
Beginning Principles and	
Practice of Cosmetology	8 cr
Fundamental Principles and	
Practice of Cosmetology I	8 cr
Fundamental Principles and	
Practice of Cosmetology II	8 cr
Fundamental Principles and	
Practice of Cosmetology III	2 cr
Fundamental Principles and	
Practice of Cosmetology IV	6 cr
Advanced Principles and	
Practice of Cosmetology I	8 cr
Advanced Principles and	
Practice of Cosmetology II	8 cr
TOTAL:	56 cr
	Practice of Cosmetology Beginning Principles and Practice of Cosmetology Fundamental Principles and Practice of Cosmetology I Fundamental Principles and Practice of Cosmetology II Fundamental Principles and Practice of Cosmetology III Fundamental Principles and Practice of Cosmetology IV Advanced Principles and Practice of Cosmetology I Advanced Principles and Practice of Cosmetology I Advanced Principles and Practice of Cosmetology II

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 238 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 lettergraded. PREREQ: Permission of instructor. D

Culinary Arts Technology

 $(2\frac{1}{2}$ and $4\frac{1}{2}$ 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:

- 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.
- 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:

Required Cot	irses:	
CUAR 0110	Culinary Foundations I	3 cr
CUAR 0111	Culinary Skill Development	I7 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 l	I7 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 0222	Purchasing Controls	3 cr
CUAR 0224	Food Service Operations	3 cr
ENGL 1101	English Composition	3 cr
	TOTAL:	43 cr

(4 1/2 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 I	I7 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 Garde Manger	
	and Appetizers	3 cr
CUAR 0221	Culinary Management	3 cr
CUAR 0222	Purchasing Controls	3 cr
CUAR 0223	Advanced Baking and Dessert	s3 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
2 114 6	. a c. n	

3 credits from the following courses to fulfill the course requirements in computers:

	Computers	3 cr
CIS 1101	Introduction to Computer Systems	3 cr
General Ed	lucation Requirements:	
ENGL 1101	English Composition	3 cr

Introduction to

ENGL 1101	English Composition	3 cr
Goal 2		3 cr
Goal 3		3 cr
Goal 12		3 cr
Goal 2 - 11		4 cr
	TO	OTAL: 79 cr

CUAR Courses

BI 0170

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 2 credits. A study of sanitary regulation practices for the proper preparation and service of food. Students learn how to maintain compliance with the FDA Food Code and Unicodes through the use of the Hazard Analysis Critical Control Point (HACCP) approach. F

CUAR 0117 Dining Room, Banquet, & Catering Operations 2 credits. This course demonstrates methods of managing service in an a la carte restaurant and how to manage banquet and catering functions. F

CUAR 0119 Culinary Weights and Measures 1 credit. Hands-on application of basic math principles that are used in food service operations. F

CUAR 0120 Culinary Foundations II 3 credits. Builds on concepts taught in CUAR 0110. Through lecture and demonstration, introduces principles of meat cookery, fish and shellfish, eggs, vegetarian cooking, salad and salad dressing, fruits, sandwiches, charcuterie, hors d'oeuvre and canapés. COREQ: CUAR 0121.

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

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

CUAR 0212 Advanced Garde-Manger and Appetizers 3 credits. Advanced hands-on preparations of salads, cold sauces, appetizers, and garnishes and their applications. Emphasis on color, texture, and temperature in preparation and presentation. F

CUAR 0214 Beverage Operations 3 credits. Practical experience and approaches in beverage operations and service. Service and storage of beverages in food service operations. F

CUAR 0221 Culinary Management 3 credits. The principles of management and supervision within a food service kitchen are studied. The importance of menu planning, cost control, purchasing, catering, and management functions is covered. S

CUAR 0222 Purchasing Controls, 3 credits. Review of methods used to budget and control costs. The course demonstrates how spreadsheet software facilitates the tasks of the manager in budgeting and assessing financial performance. PREREQ: Admitted to CUAR program or permission of instructor. F

CUAR 0223 Advanced Baking and Desserts 3 credits. Advanced hands-on preparation of baked goods, pastries and desserts will be given to the student in both theory and practice. S

CUAR 0224 Food Service Operations 3 credits. Students learn principles and practices to increase profits by maximizing service, efficiency, productivity, technology, and how to build business through effective marketing strategies. S

CUAR 0250 Career Internship 3 credits. This course is designed to provide students the opportunity to gain practical experience. Training plans are utilized to ensure maximum training opportunities for the student. F, S, Su

CUAR 0296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U or may be letter graded. PREREQ: Permission of

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 lettergraded. 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.

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 Cou	irses:	
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	5 cr
	OR	
DLT 0286	Dental Lab Specialty	
	Practice	5 cr
	SUBTOTAL: 7	'l cr

General Education Requirements:

ENGL 1101	English Composition	3 cr
Goal 2		3 cr
Goal 3		3 cr
Goals 6, 7, 9, 1	0A, 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. COREO: 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. PRE-REQ: 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 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. PREREO: 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 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 Tech**niques 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 allporcelain (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, Schwope

Two Advanced Technical Certificate options, two Associate of Applied Science Degrees and a Bachelor of Applied Science Degree are available.

Students wishing to complete the On-Site Power Generation Technology portion of the program may have a break in their training between the completion of the Diesel Technology coursework and the beginning of the On-Site Power Generation Technology coursework.

Objective: To produce graduates that can perform complex diagnostic operations, repair, and maintain the latest heavy truck, agricultural, or mining related diesel equipment; to include an option to complete training in diesel electric generator

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 0135	Workplace Relations	3 cr
TGE 0158	Employment Strategies	2 cr
General Ed	ucation Requiremen	ıt:
Goal 2	_	3 cr
	TOT	AL: 52 cr
Elective Co	urses:	
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)

		_	
Rea	nired	Courses:	٠

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	$8 \mathrm{\ cr}$
TGE 0135	Workplace Relations	3 cr
TGE 0158	Employment Strategies	$2 \ cr$
General Educ	ation Requirement:	

Goal 2	3 cr
	TOTAL: 68 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:

required Cot	ai ses.	
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 cı

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
	Te	OTAL: 6	60 cr

(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	on 3 cr
Goal 2		3 cr
Goal 3		3 cr
Goals 6, 7, 9, 10	0A, 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. D

DESL 0298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be lettergraded. PREREQ: Permission of instructor. D

Early Childhood Care and **Education Associate Degree Program**

(2 to 6 Semesters)

Program Coordinator/Senior Instructor: Ingram

Instructor: Grimes

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/childdevelopment.shtml.

This program requires students to achieve certain grades in order to advance each semester. Specific information is available in the program's student handbook.

Post-Secondary Technical Certificate: Family Child Care

Program offering of this option will depend upon sufficient student interest and availability of instructor.

(2 Semesters -- Evening) **Required Courses:**

CHLD 0160 Professionalism in Family Child Care CIII D 0161

1 cr

CHLD 0161	Child Health and Safety	l 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: 1	2 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):

Technical Certificate: Early Childhood

(2 Semesters Daytime or 4 semesters Evening)

Care and Education

Required Courses:

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)

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Required Cou	irses:	
BI 0170	Introduction to Computers	3 cr
CHLD 0105	Introduction to Early Childhood	
	Care and Education	3 cr
CHLD 0110	Child Health, Safety, Nutrition	1,
	and Environments	4 cr
CHLD 0120	Social and Emotional	
	Development in Early Childho	ood
	Care and Education	6 cr
CHLD 0125	Guidance In Early Childhood	
	Care and Education	3 cr
CHLD 0130	Physical and Cognitive	
	Development in Early Childho	ood
	Care and Education	6 cr
CHLD 0135	Fostering Creativity	3 cr
CHLD 0141	Family-Centered Care and	
	Program Management in Early	y
	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

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
	OR	
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: 6	9 cr

CHLD Courses

CHLD 0105 Introduction to Early Childhood Care and Education 3 credits. Introduces early childhood care and education (ECCE) and the role of the teacher. Orientation to the Early Childhood Associate Degree Program, including professionalism in ECCE, an overview of child growth and development, and how to observe children. Includes classroom lecture and practicum. F

CHLD 0110 Child Health, Safety, Nutrition, and Environment 4 credits. Promoting/ maintaining health and well-being of children, including health and nutritional guidelines, common childhood illnesses, maintaining safe and healthy learning environments, indoor/outdoor environmental design, schedules and routines, recognition and reporting of abuse and neglect, and licensing regulations. Includes classroom lecture and practicum. F

CHLD 0113 Curriculum Practicum in Early Childhood Care and Education 4-20 credits.

Practical experience with planning, implementing and evaluating curriculum that enhances children's development in all domains. Upon completion, students who have completed the PSTC will meet requirements for entry into the second year of the A.A.S. Includes credit for documented work experience after obtaining a CDA. May be repeated for up to 20 credits. PREREQ: Permission of instructor. D

CHLD 0120 Social and Emotional Development in Early Childhood Care and Education 6 credits. Emphasizes stages of social and emotional development, encouraging self-esteem, cultural awareness, and effective communication skills. Introduces observation and assessment of social and emotional skills; describes strategies to promote healthy social and emotional development. Includes classroom lecture and practicum. F, S

CHLD 0125 Guidance In Early Childhood Care and Education 3 credits. Principles and techniques for providing developmentally appropriate guidance. Emphasis is placed on communication skills, strategies, and observation to understand the underlying causes of behavior. Students will demonstrate appropriate interaction with children, families, and promote conflict resolution, self-control, and self-motivation. Includes classroom lecture and practicum. F, S

CHLD 0130 Physical and Cognitive Development in Early Childhood Care and Education 6 credits. Introduction to children's physical and cognitive development, including discovery experiences in math and science, block play, social studies, verbal and written language acquisition, and foundations in gross and fine motor development, brain development, multiple intelligences and learning styles. Includes classroom lectures and practicum. PREREQ: ENGL 1101. F, S

CHLD 0135 Fostering Creativity 3 credits.

Creative learning environments, planning and implementing developmentally appropriate experiences, and developing appropriate teaching materials for the classroom. Emphasizes creative activities for children in art, music, movement and physical skills, and dramatics. Includes classroom lecture and practicum. F, S

CHLD 0141 Family-Centered Care and Program Management in Early Childhood Care and Education 3 credits. Relationships between families and programs. Emphasis on requisite skills and benefits for successfully establishing, supporting, and maintaining 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 implementation in the classroom. This course focuses on applying theory into a practical setting. Includes classroom lectures and individual instruction D

CHLD 0174 Parent Involvement and Program Management in Family Child Care 1 credit. This course introduces students to family education, program management and professionalism in early childhood education. Topics studied in depth include: parenting styles and strategies, family communication, discipline, stress management, functional and dysfunctional families, family structures, team building, time management, job interviews, resume development, professional image, and professional development. Includes classroom lectures and 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 3 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 lettergraded. PREREQ: Permission of instructor. D

Electro-Mechanical Technology

(4½ Semesters)

Program Coordinator and Instructor: Beatv

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	on
	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	t1 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

College of Technology

Associate of Applied **Science Degree: Electromechanical Technology**

(4½ Semesters)

Required Courses (see Electronics Core section for required Core courses):

INST 0231	Electronics for Instrumentation	on
	and Automation	2 cr
INST 0232	Introduction to Fiber and	
	Electro-Optics	2 cr
INST 0233	Fundamentals of Logic Control	l 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	12 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 Measuremen	t1 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:		

English Composition ENGL 1101 Goal 3 One of Goals 6, 7, 9, 10A, 11, or 12 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

ELMT 0263 EM Digital Devices and Systems Theory 6 credits. A course of study on the theory, application troubleshooting techniques of solid-state devices used in logic-controlled systems. These principles are applicable to microprocessors and industrial measurement/ control processes. This will include: computers peripheral devices, interfacing, Robotic Arms, machine language, and A-D/D-A conversion methods. F

ELMT 0264 EM Digital Devices and Systems Laboratory 6 credits. A hands-on experience in the application and troubleshooting of the devices, circuits, and systems studied in ELMT 263. Student projects will be given and will include at least the following areas: research, prototyping, operating unit, with oral presentations and written documentation. Results of circuit and system testing and troubleshooting will be maintained in written log form. F

ELMT 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-thejob 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

Program Coordinators/Instructors: Beaty, K. Buffaloe, Slack, Snarr Instructors: R. Buffaloe, Durtschi, Fort, L. Larson, S. Larson, Maclure, Shepherd, Shroll, Womack

The Electronics Programs are accredited by The National Association of Industrial Technology (NAIT). The primary purpose of the NAIT accreditation is to recognize the attainment of certain professional goals and standards for Industrial Technology. The secondary purpose is to encourage others to strive toward these goals and standards. Each curricular pattern is reviewed in terms of its stated objectives, content, methods, supporting resources and evaluating systems.

The Department of Electronics administers the following programs, all of which use the Electronics Courses listed below.

- 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 Instructor: S. Larson

Instructors: Maclure, Shepherd, Womack 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:

Licetionics	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	1 cr
	Theory	
ELTR 0122	Introduction to Electronics La	bl cr
ELTR 0123	DC Electronics Principles	
	Theory	2 cr
ELTR 0124	DC Electronics Principles La	b2 cr
ELTR 0125	AC Electronics Principles	
	Theory	4 cr
ELTR 0126	AC Electronics Principles La	b2 cr
ELTR 0127	Electronic Principles	
	Capstone 2	-8 cr
ELTR 0133	Principles of Control Device	S
	Theory	3 cr
ELTR 0134	Principles of Control Device	S
	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**

41/2 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 everexpanding 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	ı2 cr
EWTT 0165	Digital Modulation Schemes	
	for Electronic Communications	s 5 cr
EWTT 0166	Digital Modulation Schemes	
	for Electronic Communication	ons
	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

COL	irses):		
ELT	TR 0271	Introduction to Lab Simulat	tion 2 ci
EW	TT 0165	0165 Digital Modulation Schemes	
		for Electronic Communicati	ons 5 ci
EWTT 0166		Digital Modulation Schem	nes
		for Electronic Communica	itions
		Lab	5 cı
EW	TT 0211	Radio Frequency/	
		Telecom Systems I	7 cı
EW	TT 0212	Radio Frequency/	
		Telecom Systems I	7 cr
EW	TT 0221	Radio Frequency/	
		Telecom Lab II	6 cı
EW	TT 0222	Radio/Frequency/	
		Telecom Lab III	3 cr
EW	TT 0223	Radio Frequency/	
		Telecom Lab III	3 cı
TG	E 0158	Employment Strategies	2 cr

General Education Requirements:

ENGL 1101	English Composit	tion 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.

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 pursues 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-thejob 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:

- To gain an essential understanding of the basic fields and the interdisciplinary nature of the Emergency Management discipline.
- To gain a fundamental knowledge of emergency management terminology and all phases of the Emergency Management discipline – preparedness, response, recovery, and mitigation.
- 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.
- 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)

(27 10WCI	uivision cicuits)	
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

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 OR	3 cr	
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 OR	3 cr	
AMST 2200	Introduction to		
	American Studies	3 cr	
ECON 1100*	Economic Issues AND	3 cr	
POLS 1101*	Introduction to		
	American Government	3 cr	
PSYC 1101	Introduction to Psychology	3 cr	
	OR		
SOC 1101	Introduction to Sociology OR	3 cr	
SOC 1102	Social Problems	3 cr	
*Only one of thes	se courses is required to sai	tisfy	
goal 11, but both courses are required in this			

goal 11, but both courses are required in this

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. Performancebased 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 levels of governance, emphasizing the importance of avoiding or preventing future and recurring losses. PREREQ: EMGT 1121. PREREQ OR COREQ: GOAL 4 and GOAL 5. D

EMGT 2224 Disaster Response and Recovery 3 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. PREREO: 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 lettergraded. PREREQ: Permission of instructor. D

Energy Systems Engineering Technology

4 or 41/2 Semesters

Coordinator and Instructor: Beaty Instructors: Fort, Herbert, Larson, Maclure, Shepherd, Shroll, Womack

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 (or will, soon):

- Energy Systems Electrical Engineering Technology
- Energy Systems Industrial Production Technology
- Energy Systems Instrumentation and Control Engineering Technology
- Energy Systems Mechanical Engineering Technology
- Energy Systems Nuclear Operations Technology
- Energy Systems Renewable Energy 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.

Students interested in an Energy Systems program should understand that a criminal record may affect employability in the energy industry.

Graduates will have hands-on experience setting up and troubleshooting a variety of power generation components and systems, through knowledge of various types of electrical power generation methods and an understanding of industry health and safety practices.

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
ESET 0100	Engineering Technology	
	Orientation	1 cr

Electrical Circuits I, and Lab 1	0 cr	
Electrical Circuits II, and Lab 1	0 cr	
Electrical Systems		
Documentation and Standards	1 cr	
Thermal Cycles		
and Heat Transfer	2 cr	
Boiler, Reactor,		
and Turbine Principles	2 cr	
Process Control Theory	3 cr	
Process Control		
Devices Laboratory	1 cr	
Electrical Engineering		
Technology I	7 cr	
Electrical Engineering		
Technology I Lab	5 cr	
Electrical Engineering		
Technology II	5 cr	
Electrical Engineering		
Technology II Lab	4 cr	
Employment Strategies	1 cr	
Ethical Issues in Technology	1 cr	
General Education Requirements		
English Composition	3 cr	
Principles of Speech (Goal 2)	3 cr	
Introduction to Statistics		
(Goal 3)	3 cr	
	Electrical Circuits II, and Lab I Electrical Systems Documentation and Standards Thermal Cycles and Heat Transfer Boiler, Reactor, and Turbine Principles Process Control Theory Process Control Devices Laboratory Electrical Engineering Technology I Electrical Engineering Technology II Lab Electrical Engineering Technology II Electrical Issues in Technology English Composition Principles of Speech (Goal 2) Introduction to Statistics	

*MATH 1170 may be substituted for MATH 1153.

Total: 77 cr

PHYS 1101,1101L Elements of Physics, and Lab

(Goal 4)

Goal 6, 7, 9, 10A, 11, or 12

Associate of Applied Science Degree: Energy Systems Instrumentation and Controls Engineering Technology

(41/2 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
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	10 cr
ESET 0200	Applications of Electronic,	
	Electrical, and Process Contr	ol
	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	I 4 cr
TGE 0158	Employment Strategies	1 cr
TGE 0257	Ethical Issues in Technology	1 cr

General Education Requirements:

ENGL 1101 **English Composition** COMM 1101 Principles of Speech (Goal 2)3 cr Goal 3 PHYS 1101, 1101LElements of Physics, and Lab 4 cr One of Goals 6, 7, 9, 10A, 11 or 12 3 cr TOTAL: 82 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 0100	Engineering Technology	
	Orientation	1 cr
ESET 0120, 0120I	Introduction to	
	Energy Systems, and Lab	3 cr
ESET 0121, 0121I	Basic Electricity and	
	Electronics, and Lab	8 cr
ESET 0122, 0122I	Electrical System and Motor	
	Control Theory, and Lab	3 cr
ESET 0123, 0123I	Mechanical Power Transmiss	ion,
	and Lab	6 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 0220	Thermal Cycles	
	and Heat Transfer	2 cr
ESET 0221	Boiler, Reactor,	
	and Turbine Principles	2 cr
ESET 0240, 0240I	Pumps, and Pump	
	Applications Laboratory	6 cr
ESET 0241 0241L	Valves, and Valve	
	Application Laboratory	5 cr
ESET 0242	Process Measurement for	
	Mechanical Engineering	
	Technology	2 cr
ESET 0243, 0243L	Fluid and Pneumatic Power,	
	and Lab	4 cr
ESET 0244, 0244L	Rotating Equipment	
	Maintenance, and Lab	7 cr
ESET 0245	Fundamentals	
	of Heat Exchangers	2 cr
ESET 0246	Metals and Metallurgy	2 cr
MATH 1153*	Introduction to Statistics	3 cr
TGE 0158	Employment Strategies	1 cr
TGE 0257	Ethical Issues in Technology	1 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 cı
Goal 6, 7, 9, 10A,	11, or 12	3 cr
	Total 8	31 cr

*MATH 1170 may be substituted for MATH 1153.

Associate of Applied Science Degree: Nuclear Operations Technology

24 months

Objective:

To prepare students for employment as nuclear operations technicians in nuclear energy generation fields. Acceptance is based upon available openings and other factors such as grade point average and attendance. This degree is not intended to produce graduates prepared to work in the Health Physics fields.

Goal 6, 7, 9, IOA, 11 or 12

Required Cou	irses	
CHEM 1111,1111L	General Chemistry I, and Lab	5 cr
ELTR 0141	Applied Mathematics I	4 cr
ELTR 0142	Applied Mathematics II	4 cr
ESET 0100	Engineering Technology	
	Orientation	1 cr
ESET 0101,0101L	Electrical Circuits I, and Lab 1	0 cr
ESET 0102,0102L	Electrical Circuits II, and Lab 1	0 cr
ESET 0151,0151L	Nuclear Industry Fundamenta	ıl
	Concepts, and Lab	5 cr
ESET 0220	Thermal Cycles	
	and Heat Transfer	2 cr
ESET 0221	Boiler, Reactor,	
	and Turbine Principles	2 cr
ESET 0222	Process Control Theory	3 cr
ESET 0226	Process Control Devices Lab	1 cr
ESET 0248	Power Plant Drawings	3 cr
ESET 0249	Reactor Plant Materials	3 cr
ESET 0250	Radiation Detection	
	and Protection	3 cr
ESET 0251	Reactor Theory,	
	Safety and Design	3 cr
ESET 0252	Power Plant Components	3 cr
ESET 0280	Capstone/Case Studies	
	in Nuclear Operations	2 cr
TGE 0158	Employment Strategies	1 cr
TGE 0257	Applied Ethical Issues	
	in Technology	1 cr
General Educ	ation Requirements	
ENGL 1102	Critical Reading and Writing	3 cr
COMM 1101	Principles of Speech	3 cr
MATH 1153	Introduction to Statistics	
	(Goal 3)	3 cr
	OR	
MATH 1170	Calculus I (Goal 3)	4 cr
PHYS 1101,1101L	Elements of Physics, and Lab	
	(Goal 4)	4 cr

3 cr

TOTAL (minimum): 82 cr

Technical Certificate: Energy Systems Renewable Energy Technology

(2 semesters)

Students must register concurrently for the lab course associated with each theory course.

Objective:

To prepare students for employment as technicians in renewable energy generation fields. Electrical generation technologies addressed include wind, solar, and geothermal technologies.

Acceptance is based upon available openings and other factors such as grade point average and attendance.

For a Program Information Packet, visit http://www.isu.edu/ctech/programs. shtml, which leads to descriptions of each program in general, course descriptions, lists of course sequences, and a cost of books, tools, uniforms, fees, and other expenses.

Required Courses:

Kequireu Cot	11 505.	
ESET 0160	Introduction	
	to Renewable Energy	4 cı
ESET 0160L	Introduction to Renewable	
	Energy Lab	2 cı
ESET 0101	Electrical Circuits I	5 cı
ESET 0101L	Electrical Circuits I Lab	5 cı
ESET 0122	Electrical and Motor Controls	2 cı
ESET 0122L	Electrical and Motor Control	
	Laboratory	1 cr
ESET 0150	Wind Energy Fundamentals	2 cr
ESET 0150L	Wind Energy Laboratory	1 cı
ESET 0161	Applications of Physics and	
	Earth Science	3 cı
ESET 0243	Fluid and Pneumatic Power	3 cı
ESET 0243L	Fluid	
	and Pneumatic Power Lab	2 cı
ESET 0246	Metals and Metallurgy	2 cı
ESET 0162	Industrial Health and Safety	2 cr
Official articul	ation agreements have b	een
established wit	th other post-secondary	and
secondary sch	ools. Where these agr	ee-

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.

ments exist, the specific block of training

(i.e. session/semester/year) will be ac-

cepted as equivalent to that taught at ISU and will count equally toward graduation. The student will then be allowed to repeat the course at the next available program opening.

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:

Required Courses:		
ESET 0100	Engineering Technology	
	Orientation	1 cr
ESET 0121, 0121	LBasic Electricity and	
	Electronics, and Lab	8 cr
ESET 0150, 0150	LIntroduction to Wind Energy	
	Systems, and Lab	3 cr
ESET 0122, 0122	LElectrical System and Motor	
	Control Theory, and Lab	2 cr
ESET 0123, 0123	LMechanical Power Transmiss	sion,
	and Lab	6 cr
ELTR 0141	Applied Mathematics I	4 cr
ELTR 0142	Applied Mathematics II	4 cr
ESET 0212	Electrical Systems	
	Documentation and Standards	s 1 cr
	LMicrocontrollers, and Lab	3 cr
	LElectrical Machines, and Lab	6 cr
	LElectrical Power System	6 cr
ESET 0240, 0240	LPumps, and	
	Pump Applications Lab	6 cr
ESET 0243, 0243	LFluid and Pneumatic Power	
	and Lab	4 cr
ESET 0247, 0247	LWind Energy Control Systen	1S,
	and Lab	3 cr
TGE 0158	Employment Strategies	1 cr
MATH 1153*	Introduction to Statistics	3 cr
TGE 0257	Ethical Issues in Technology	1 cr
General Edu	cation Requirements	
ENGL 1101	English Composition	3 cr
COMM 1101	Principles of Speech	3 cr

Energy Systems Engineering Technology Courses

PHYS 1101, 1101LElements of Physics, and Lab 4 cr

 $*MATH\,1170\,may\,be\,substituted\,for\,MATH\,1153.$

Total 75 cr

Goal 6, 7, 9, 10A, 11, or 12

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, D

ESET 0101 Electrical Circuits I 5 credits. Includes measurements and calculation of current, voltage, resistance and power in series, parallel and combination circuits with DC and AC power sources. Voltage and current in resistive-capacitive (R-C) and resistive-inductive (R-L) circuits during switch transitions, AC power circuits including reactance and transformation. Voltage and current in non-resonant and resonant AC circuits and filters. COREQ: ESET 0101L. F, S, D

ESET 0101L Electrical Circuits I Laboratory 5 credits. Electrical circuits are analyzed, designed and constructed using various DC and AC theories and electrical quantities are measured using appropriate test equipment. COREQ: ESET 0101. F, S, D

ESET 0102 Electrical Circuits II 5 credits. Continuation of electrical circuit study introducing the fundamentals of semiconductors, amplifier theory, digital logic and logical devices. COREQ: ESET 0102L. F, S, D

ESET 0102L Electrical Circuits II Laboratory 5 credits. Laboratory applications and experiments in troubleshooting of semiconductor devices and circuits, digital logic and logic device application. COREQ: ESET 0102. F, S, D

ESET 0120 Introduction to Energy Systems 2 credits. Basic terminology and functions of power generation processes, equipment, and material. Introduction to Rankin, Carnot, and Brayton cycles and principles of heat transfer and fluid flow. COREQ: ESET 120L. F, D

ESET 0120L Introduction to Energy Systems Laboratory 1 credit. Laboratory exercises in the maintenance and function of selected power plant process equipment, primary process equipment, and their sub-components. COREQ: ESET 0120. F, D

ESET 0121 Basic Electricity and Electronics 4 credits. Fundamental principles of electricity, Ohm's law, Kirchoff's laws, and circuit analysis applied to DC and AC circuits. COREQ: ESET 0121L. F, D

ESET 0121L Basic Electricity and Electronics Laboratory 4 credits. Basic principles of electrical measurement and testing of DC and AC circuits. COREQ: ESET 0121. F, D

ESET 0122 Electrical Systems and Motor Control Theory 2 credits. Introduction to electrical system distribution and basic motor control including two- and three-wire control using a variety of devices and motor magnetic controllers. Control relays, time relays, solenoid valves, latching relays, and motor control centers. PREREQ: ESET 0121 and ESET 0121L or permission of instructor. COREQ: ESET 0122L. S, D

ESET 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, D

ESET 0123 Mechanical Power Transmission 2 credits. Bearings, belt and mechanical drives, chain and chain drives, couplings, clutches, gears, and fluids in the transmission of power used in the industrial processes. PREREQ: ESET 0121 and ESET 0121L or permission of instructor. COREQ: ESET 0123L. S, D

ESET 0123L Mechanical Power Transmission Laboratory 4 credits. The application of bearings, belt and mechanical drives, chain and chain drives, couplings, clutches, gears, and fluids in the transmission of power used in the industrial processes. PREREQ: ESET 0121 and ESET 0121L or permission of instructor. COREQ: ESET 0123. S, D

ESET 0124 Mechanical Systems and Machine Design 2 credits. Design considerations for machine elements used in mechanisms and machines, including advanced strength of materials; material selection; shaft design; selection of gear, chain, and belt drives; design and selection of bearings; design of brakes and clutches; and characteristics and selection of electric motors. PREREQ: ESET 0122. S, D

ESET 0150 Introduction to Wind Energy Systems 2 credits. Investigate how wind power works, and its reliability, economics, and environmental implications. Discussion includes turbine types, their development, and their current status. The operating experiences and economic status of the industry will be evaluated. Students will be expected to carry out research and present reports on selected turbines. COREQ: ESET 0150L. F, D

ESET 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, D

ESET 0151 Nuclear Industry Fundamental Concepts 4 credits. Introduces fundamental concepts used throughout the nuclear industry as an integral part of daily operations. Topics include Human Performance Enhancement (HPE) fundamentals, an introduction to the Systematic Approach to Training (SAT), conduct of On-The-Job training (OJT) and Task Performance Evaluation (TPE), Foreign Material Exclusion (FME), and an overview of the FirstEnergy Nuclear Operating Corporation (FENOC) safety manual. COREQ: ESET 0151L. F

ESET 0151L Nuclear Industry Fundamental Concepts Lab 1 credit. Laboratory applications of nuclear industry operations. It includes OSHA compliance courses required by nuclear facilities. COREQ: ESET 0151. F

ESET 0160 Introduction to Renewable Energy 4 credits. An exploration of the technologies of renewable energy, emphasizing physical principles and practical applications of wind, solar, and biomass forms of energy production. COREQ: ESET 0160L D

ESET 0160L Introduction to Renewable Energy Lab 2 credits. Application of principles and practical applications of wind, solar, and biomass forms of energy production. COREQ: ESET 0160. D

ESET 0161 Applications of Physics and Earth Science 3 credits. Concepts and applications of physics and earth science addressing the function of mechanics, heat, wave motion, electricity, magnetism, light and the dynamic aspects of weather and climate from global to local scales with emphasis on how these affect energy production and use. D

college of Technology ESET 0162 Industrial Health and Safety 2 credits. An overview of legislation, worker's compensation, hazard recognition, and safety planning. Includes basic engineering solutions. Addresses employee safety training requirements, recordkeeping, safety inspections, and program planning in the construction industry. Includes First Aid training and responder certification. D

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. PREREO: ELTR 0141, ELTR 0142, ESET 0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. Su, D

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: ELTR 0141, ELTR 0142, ESET 0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. Su, D

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, nonlinear optics, laser bandwidth, power supplies, optical fibers, fiber installation, testing, and maintenance. Lecture/Laboratory. PREREQ: ELTR 0141, ELTR 0142, ESET 0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. Su, D

ESET 0203 Fundamentals of Electrical Generation 2 credits. Introduction to generator and prime mover principles covering major sources of utility generation. PREREQ: ELTR 0141, ELTR 0142, ESET 0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor, F. D

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: ELTR 0141, ELTR 0142, ESET 0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. Su, D

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: ELTR 0141, ELTR 0142, ESET 0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. Su, D

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: ELTR 0141, ELTR 0142, ESET 0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. Su, D

ESET 0210 Principles of Power Generating Systems 2 credits. Transmission lines, generator and transformer characteristics, and fault detection and correction. Emphasis on circuit performance addressing voltage regulation, power factor, and protection devices. Lecture/ Laboratory, PREREQ: ELTR 0141, ELTR 0142, ESET 0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. F, D

ESET 0211 Sensors and Control Devices 2 credits. Theory and application of control devices, sensors, timers, relays. PREREQ: ELTR 0141, ELTR 0142, ESET 0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. F, D

ESET 0212 Electrical Systems Documentation and Standards 1 credit. Introduction to print reading, technical specifications, print annotation, report writing and electrical codes. PREREQ: ELTR 0141, ELTR 0142, ESET 0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. F, D

ESET 0213 Motors, Generators and Industrial Electrical Systems 2 credits. The construction, design aspects and theory of operation of DC, single and poly-phase motors, variable frequency motor control, electrical switch-boards and electrical distribution systems. PREREQ: ELTR 0141, ELTR 0142, ESET 0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. F, D

ESET 0214 Motor Control Laboratory 1 credit. Applications of AC and DC motor control theory and motor protection systems. PREREQ: ELTR 0141, ELTR 0142, ESET 0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. F, D

ESET 0215 Controller Laboratory 1 credit. Applications of Programmable Logic Controls and DCS including I-O configuration, Ladder logic design and function block use. PREREQ: ELTR 0141, ELTR 0142, ESET 0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. F, D

ESET 0216 Sensors and Control Device Laboratory 1 credit. Laboratory applications of sensors (including photoelectric and proximity types), relay and timer circuits, and application of automation devices. PREREQ: ELTR 0141, ELTR 0142, ESET 0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor, F. D.

ESET 0217 Motor, Generator and Electrical Systems Laboratory 2 credits. Installation, setup, control, maintenance, and troubleshooting of AC and DC motors, electrical device installations and industrial safety and proper tool usage. PREREQ: ELTR 0141, ELTR 0142, ESET 0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. F, D

ESET 0218 Discrete Control Systems 2 credits. Discrete control concepts of power system operation including motor operated valve control, turbine sequencing and electrical system protection. PREREQ: ELTR 0141, ELTR 0142, ESET 0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. F, D

ESET 0220 Thermal Cycles and Heat Transfer 2 credits. Introduction to the Rankin, Carnot, and Brayton cycles. Includes principles of heat transfer and fluid flow and thermodynamic principles. PREREQ: ELTR 0141, ELTR 0142, ESET 0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. F, D

ESET 0221 Boiler, Reactor, and Turbine Principles 2 credits. Survey of various boiler types and principles of combustion, overview of reactor principles and steam generation, turbine types and principles of operation. PREREQ: ELTR 0141, ELTR 0142, ESET 0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. S, D

ESET 0222 Process Control Theory 3 credits. Electronic instruments-sensors, indicators, transmitters, computing relays, electro-optics, electronic controllers, ratio control, cascade control, recorders, analytical equipment, troubleshooting. PREREQ: ELTR 0141, ELTR 0142, ESET 0101, ESET 0101L, ESET 0102, ESET 0102L, and ESET 0226, or permission of instructor, S. D.

ESET 0223 Digital Control Theory 2 credits. Digital systems, digital control, analog-to-digital and digital-to-analog interfacing, signal conditioning, programmable controllers, computer application. PREREQ: ELTR 0141, ELTR 0142, ESET 0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. S, D

ESET 0224 Measurement Theory 2 credits. Calibration calculations, pressure scales, level considerations, specific gravity, elevation suppression, closed and open systems, temperature scales, thermocouple and RTD values, bulb and capillary devices, heat transfer, flow with square root linearization, gas flow measurement calculations, mass flow, humidity measurements, PH measurements. PREREQ: ELTR 0141, ELTR 0142, ESET0101, ESET0101L, ESET0102, and ESET 0102L, or permission of instructor. S, D

ESET 0225 Instrument Calibration Laboratory 1 credit. Use of test equipment, power supplies, current and volt measurements, use of oscilloscope, capacitor checker, decade box, Wheatstone bridge, transmitter simulator, manometers, pressure calibration devices. PRE-REQ: ELTR 0141, ELTR 0142, ESET 0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. S, D

ESET 0226 Process Control Devices Laboratory 1 credit. Set up, maintenance and troubleshooting of electronic sensors, indicators, transmitters, relays recorders, and controllers, transmission with twisted pair, fiber optics, smart systems, and analytical equipment. PREREQ: ELTR 0141, ELTR 0142, ESET 0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. COREQ: ESET 0222. S, D

ESET 0228 Measurements Laboratory 1 credit. Calibration of transmitters, simulation of process variables, temperature, pressure, level flow, and humidity control loops. PRE-REQ: ELTR 0141, ELTR 0142, ESET 0101, ESET 0101L, ESET 0102L, and ESET 0102L, or permission of instructor. S, D

ESET 0230 Communication Circuits 2 credits. Communication and various types of data and information transfer circuits. Analysis of the various types of communication available, and their principles of operation. COREQ: ESET 0230L. F, D

ESET 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. COREO: ESET 0230. F, D

ESET 0231 Microcontrollers 2 credits. Principles of motor controls, microcontroller, and programmable logic controller (PLC) programming, including I/O devices and integration of process control principles. COREQ: ESET 0231L. F, D

ESET 0231L Microcontrollers Laboratory 1 credit. Applications of motor controls, microcontroller and programmable logic controller (PLC) programming, including I/O device connections and interface to final elements of process control systems. COREQ: ESET 0231. F, D

ESET 0232 Electrical Machines 3 credits. Energy storage, transfer, and conversion, force and emf production, coupled circuit analysis of systems with both electrical and mechanical inputs. Applications to electric motors and generators and other electromechanical transducers. COREQ: ESET 0232L. F, D

ESET 0232L Electrical Machines Laboratory 3 credits. Laboratory applications of electrical machines including, testing, evaluation and industry best practices for installation and troubleshooting. COREQ: ESET 0232. F, D

ESET 0233 Electrical Power Systems 3 credits. The electric power industry, operation of power systems, load flow, fault calculations, economic dispatch and general technical problems of electric power networks. COREQ: ESET 0233L. S, D

ESET 0233L Electrical Power Systems Laboratory 3 credits. Applications and laboratory studies of power network principles, equipment application and device evaluation. COREQ: ESET 0233. S, D

ESET 0235 Power Electronic Circuits 2 credits. Electronic theory addressing power electronic components, functions and configurations of power, multistage differential and operational amplifiers, oscillators, thyristors, power control

and regulation circuits, sensors and networks. COREQ: ESET 0235L. S, D

ESET 0235L Power Electronic Circuits Laboratory 1 credit. Electronic laboratory addressing the components, functions and configurations of power, multistage differential and operational amplifiers, oscillators, thyristors, power control and regulation circuits, sensors and networks. COREQ: ESET 0235. S, D

ESET 0240 Pumps 3 credits. Introductory hydraulic engineering concepts that pertain to centrifugal pumps, including pump seals, packing techniques, and bearings. Operation and maintenance of various industrial pump types. Emphasis on centrifugal pump maintenance and repair. PREREQ: ESET 0123 and ESET 0123L or permission of instructor. COREQ: ESET 0240L. F, D

ESET 0240L 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, D

ESET 0241 Valves 3 credits. Introduction to basic construction, components, materials, and function of valve types common to power generation systems. PREREQ: ESET 0123 and ESET 0123L or permission of instructor. COREQ: ESET 0241L. F, D

ESET 0241L 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, D

ESET 0242 Process Measurements for Mechanical Engineering Technology 2 credits. Principles of temperature, pressure, strain, flow, force, and vibration measurements. Techniques of computerized data acquisition and reduction. Lecture plus laboratory work in selected topics. F, D

ESET 0243 Fluid and Pneumatic Power 2 credits. Review fluid and pneumatic power mechanics with an emphasis on symbology, circuit operation and design, pneumatic and hydraulic component operation, and terminology. PREREQ: ESET 0123 and ESET 0123L or permission of instructor. COREQ: ESET 0243L. S, D

ESET 0243L Fluid and Pneumatic Power Laboratory 2 credits. Applications of fluid and pneumatic power mechanics with an emphasis on symbology, circuit operation and design, pneumatic and hydraulic component operation, and terminology. PREREQ: ESET 0123 and ESET 0123L or permission of instructor. COREQ: ESET 0243. S, D

ESET 0244 Rotating Equipment Maintenance 4 credits. Predictive maintenance techniques as a tool for prolonging equipment life and preventing problems. Includes vibration, lubricant and trend analysis techniques for extending bearing life. Machine, shaft, and gear alignment practices and methods as a procedure to extend the life of bearings, couplings, seals, and to reduce vibration in equipment, components and gears. PREREQ: ESET 0123 and 0124. COREQ: ESET 0244L. S, D

ESET 0244L Rotating Equipment Maintenance Lab3 credits. Applications and use of tools and equipment used in the reliability maintenance process. Includes use of alignment tools, vibration data collection, oil analysis and infrared testing. PREREQ: ESET 0124 or permission of instructor. COREQ: ESET 0244. S, D

ESET 0245 Fundamentals of Heat Exchangers 2 credits. Introduces construction of various heat exchanger types and their operation. Includes flow patters, temperature profiles, and analysis techniques to determine performance and efficiency. S, D

ESET 0246 Materials and Metallurgy 2 credits. Lecture, demonstration, and laboratory emphasizing the practical approach to basic principles of materials and metallurgical science, including behavior of materials under various conditions. S, D

ESET 0247 Wind Energy Control Systems 2 credits. Measurement and control of mechanical and electrical systems, techniques of computerized data acquisition and reduction, electrical interconnection issues, technical challenges, safety issues, and metering associated with renewable resource generation. Discussion of operation, dispatch, and control of wind systems, and their management and planning. PREREQ: ESET 0231 and ESET 0231L or permission of Instructor. COREQ: ESET 0247L. S, D

ESET 0247L Wind Energy Control Systems Laboratory 1 credit. Applications measurement and control of mechanical and electrical systems used in wind energy. PREREQ: ESET 0231 and ESET 0231L or permission of instructor. COREQ: ESET 0247. S, D

ESET 0248 Power Plant Drawings 3 credits. Covers the use of and relationship among typical drawings found at a nuclear power plant. Topics include using mechanical, electrical, and isometric drawings; the information contained in the lead sheet of a set of drawings; the use of notes and legends; standard symbology used in engineering drawings; and the use of various types of drawings together in order to perform work, locate components, or use for other typical applications. PREREO: ESET 0151 and ESET 0151L. F

ESET 0249 Reactor Plant Materials 3 credits. Provides an understanding of the various materials used in the operation of a nuclear power plant. Topics include phase equilibria of materials, mechanical properties and behavior of materials, environmental effects on materials, and nuclear specific topics such as fuel pellets, fuel rod cladding, control rods, radiation effects on materials, enrichment of radioactive isotopes, and fuel pellet fabrication. PREREQ: ESET 0151 and ESET 0151L. F

ESET 0250 Radiation Detection and Protection 3 credits. The theory, application, detection, and shielding of the various types of radiation. Includes detection devices such as typical survey meters, core power detectors, and personnel monitoring devices. Discussion of how exposure to radiation can be minimized and the biological impact of radiation. PREREQ: ESET 0151 and ESET 0151L. F

ESET 0251 Reactor Theory, Safety and Design 3 credits. Provides an understanding of the

college of Technology principles of reactor theory, including the fission process; the neutron life cycle; the concepts of subcritical multiplication, criticality and reactivity; thermal limits and their importance to operation; the functions and construction of fission product barriers; the practical application of the concepts of defense in depth and redundancy; and the roles of the various employees in reactor safety. PREREO: ESET 0248, ESET 0249, and ESET 0250. S

ESET 0252 Power Plant Components 3 credits. Introduces fundamental components and pieces of equipment that are used throughout electrical power generating facilities such as pumps, valves, heat exchangers, motors, and generators. Includes purpose, construction, theory of operation, and typical maintenance requirements of these devices. PREREQ: ESET 0248, ESET 0249, and ESET 0250. S

ESET 0280 Capstone and Case Studies in Nuclear Engineering Technology 2 credits. An examination of case studies from the nuclear power industry and from other industries. Discussion of precursors to poor decision making and how the proper use of human performance enhancement (HPE) and event free tools can minimize the risks of accidents. PREREQ: ESET 0248, ESET 0249, and ESET 0250. S

$ESET\,0290\,Energy\,Systems\,Theory\,I\,8\,credits.$

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, D

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, D

ESET 0291 Energy Systems Theory II 8 credits. Theory in the application of Energy Systems control devices that measure and control pressure, temperature, level, flow, humidity, PH, viscosity, velocity, volume, density, conductivity and composition; instruction in calibration and test procedures used to install, maintain, and troubleshoot components common to industrial facilities. COREQ: ESET 0291L. S, D

ESET 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, D

ESET 0292 Electrical Engineering Technology I 7 credits. Theory involving communication and various data and information transfer circuits, principles of motor controls, microcontroller and programmable logic controller (PLC) programming, and electrical machines including energy storage, transfer, and conversion applicable to electric motors, generators, and other electromechanical transducers. PREREQ: ELTR 0141, ELTR 0142, ESET 0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. COREQ: ESET 0292L. F, D

ESET 0292L Electrical Engineering Technology I Laboratory 5 credits. Lab involving communication and various data and information transfer circuits, principles of motor control, microcontroller and programmable logic controller (PLC) programming, and electrical machines including energy storage, transfer, and conversion applicable to electric motors, generators, and other electromechanical transducers. PREREQ: ELTR 0141, ELTR 0142, ESET 0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. COREQ: ESET 0292. F, D

ESET 0293 Electrical Engineering Technology II 5 credits. Electric power industry theory addressing generation, operations, and distribution of power systems including electronic components, functions, and configurations of power, amplifiers, oscillators, thyristors, power control and regulation circuits, sensors, and networks. PREREQ: ELTR 0141, ELTR 0142. ESET 0101. ESET 0101L. ESET 0102. and ESET 0102L, or permission of instructor. COREQ: ESET 0293L. S, D

ESET 0293L Electrical Engineering Technology II Laboratory 4 credits. Electric power generation lab, electric power distribution lab, and 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. PREREQ: ELTR 0141, ELTR 0142, ESET 0101, ESET 0101L, ESET 0102, and ESET 0102L, or permission of instructor. COREQ: ESET 0293. S, 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. PREREO: Permission of instructor. F, S, 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. F, S, 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 Goa	ıl 6	3 cr
	OR	
1 course from Goa	ıl 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 cr
FSA 1103	Fire Prevention and Education2	cr cr
FSA 1105	Fire Protection Systems 2	cr
FSA 1106	Principles	
	of Emergency Service 2	cr.
FSA 1107	Principles of Fire and	
	Emergency Services Safety	
	and Survival 2	cr

Fire Services Administration Non-Core Courses (4 credits)*

CHOOSE I II O	courses.
FSA 1104	Fire Protection Hydraulic
	and Water Supply
FSA 2201	Fire Administration I

Legal Aspects

of the Emergency Services 2 cr

FSA 2202

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 Fi	re Officer I (90 hours) meets t	his
4-credit requireme	nt	

**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 Degreesat-a-Distance Courses (42 upper division credits)

Eira and Emargana

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 Organizatio	n	
	and Management	3 cr	
FSA 3327	Fire-Related Human Behavi	or3 cr	
FSA 3328	Disaster Planning and Contr	ol 3 cr	
FSA 3329	Political and Legal Foundat	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 Service	es 3 cr	
FSA 3332	Fire Investigation and Analys	sis 3 cr	
FSA 3333	Applications of Fire Research	h 3 cr	
FSA 3334	Fire Dynamics	3 cr	
FSA 3335	Emergency Medical Service	es	
	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 politic	cal science core curriculum	
Courses (excluding	POLS 4460)	6 cr
Six credits of elective	ve political science courses	
(excluding POLS 4-	459)	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 1107 Principles of Fire and Emergency Services Safety and Survival 2 credits. This course introduces the basic principles and history of the national firefighter life safety initiatives, focusing on the need for cultural and behavior change throughout the emergency services. D

FSA 2201 Fire Administration 2 credits. Organization and management of a fire department and the relationship of government agencies to the fire service. Emphasis on fire service leadership from the perspective of the company officer. D

FSA 2202 Legal Aspects of the Emergency Services 2 credits. Federal, State and local laws that regulate emergency services, national standards influencing emergency services, standard of care, tort, liability, and a review of relevant court cases. D FSA 2296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U or may be letter graded. PREREQ: Permission of instructor. D

FSA2298 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. PREREO: 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

 $FSA3325\,Personnel\,Management\,for\,the\,Fire$ ServiceAdministrator3 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

FSA3331 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

CET 0111/GEWI1	1111	
	Drawing with CAD	3 cr
CET 0112/GEMT		_
CET 0121/CENT	Beginning Surveying	5 cr
CET 0121/GEMT		
	Civil Engineering Tech Drafting	3 cr
CET 0122/GEMT		3 (1
CLI 0122/GEWII	Intermediate Surveying	5 cr
CET 0216/GEMT		
	Route Survey and Design	6 cr
CET 0226/GEMT	2226	
	Land and	
	Construction Surveys	6 cr
ENGL 3307	Professional and	
	Technical Writing	3 cr
GEMT 3310	Surveying Law	
CENT 2211	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	3 CI
GENII 5514	in Surveying	3 cr
GEMT 3315	Surveying Adjustments	5 01
GEWII 5515	and Coordinate Systems	3 cr
GEMT 3317	Subdivision Planning and	5 01
02	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	
3.5.10077.44.45	Information Systems, and Lab	
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 Educ	cation Requirements:	
ENGL 1101	English Composition	3 cr
ENGL 1101	Critical Reading and Writing	
COMM 1101	Principles of Speech	3 cr
MATH 1153	Introduction to Statistics	3 cr
	AND	
MATH 1170	Calculus I	4 cr
Goal 4		4 cr
	Elements of Physics, and Lab	
HIST 1118	U S History and Culture	3 cr
ECON 1100	Economic Issues	3 cr

		-		
GEOL 4409	Remote Sensing	3	cr	

ENGL 1102	Critical Reading and Writing	3 cr
COMM 1101	Principles of Speech	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	$4 \mathrm{\ cr}$
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
PHIL 1103	Introduction to Ethics	3 cr
Any one (1) of Go	als 6 or 7	3 cr

3 cr or 8 cr

TOTAL: 122 or 127 cr

Any one (1) of Goals 10A, 10B or 12

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 CET 0111. F

GEMT 1112 Beginning Surveying 5 credits. Introduction to surveying. Theory and field work using equipment in the areas of measuring (taping, chaining, using hand levels), leveling (differential and profile), theodolites and total stations. Field projects include alignment and profile, closed traverse, and introduction to survey coordinate geometry applications. Crosslisted 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 CET 0121. PREREQ: CET 0111/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 CET 0122. PREREQ: CET 0112/ GEMT 1112. S

GEMT 2216 Route Survey and Design 6 credits. Study of route surveying; circular, spiral, and parabolic curves as applied to highway design; route locations, plan, and specifications. Plans will be drawn with plotters using CAD $and \, survey/engineering \, software. \, Cross-\bar{listed} \, as$ CET 0216. PREREQ: CET 0122/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 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. PREREO: 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. PRE-REQ: 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 lettergraded. PREREQ: Permission of instructor. D

Graphic Arts/ Printing Technology

3 to 41/2 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 customeroriented 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.

Advanced Technical Certificate: Graphic Arts-Desktop Publishing/ Print Media

(2½ Semesters)

Required Courses:

	Courses.	
GART 0121	Introduction to Graphic Arts	2 cr
GART 0123	Finishing Binding	1 cr
GART 0124	Printing Mathematics	2 cr
GART 0129	Beginning Desktop Publishi	ng/
	Print Media	8 cr
GART 0130	Intermediate Desktop	
	Publishing/Print Media	8 cr
GART 0132	Advanced Desktop Publishin	ıg/
	Print Media	8 cr
GART 0133	Digital Imposition	
	and Printing Technology	8 cr
GART 0135	Graphic Arts Production	8 cr
TGE 0158	Employment Strategies	1 cr
General Education Requirements:		

ENGL 1101	English Composition	3 cr
COMM 1101	Principles of Speech	3 cr
PSYC 1101	Introduction to	
	General Psychology	3 cr
	TOTA	L: 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 Publishin	g/
	Print Media	6 cr
GART 0130	Intermediate Desktop Publish	ning/
	Print Media	7 cr
GART 0131	Advanced Press Operation	6 cr
GART 0132	Advanced Desktop Publishin	g/
	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 Educ	cation Requirements:	
EMCI 1101	English Communities	2

ENGL 1101	English Composition	on 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**

(4 Semesters)

Required Courses:

GART 0121	Introduction to Graphic Arts	2 cı
GART 0123	Finishing Binding	1 cr
GART 0124	Printing Mathematics	2 cr
GART 0129	Beginning Desktop Publishin	ng/
	Print Media	8 cı
GART 0130	Intermediate Desktop	
	Publishing/Print Media	8 cı
GART 0132	Advanced Desktop Publishin	g/
	Print Media	8 cı
GART 0133	Digital Imposition	
	and Printing Technology	8 cı
GART 0135	Graphic Arts Production	8 cı
GART 0138	Introduction to	
	Design/Print Media	8 cı
GART 0139	Digital Design Techniques	
	and Emerging Technology	8 cı
GART 0140	Advanced Digital Design	
	and Multiple Media	8 cı
TGE 0158	Employment Strategies	1 cı
G 151		

General Education Requirements:

ENGL 1101	English Composit	ion 3 cr
Goal 2		3 cr
Goal 3		3 cr
Goals 6, 7, 9, 1	0A, 11 or 12	3 cr
Goals 2-12		(min) 4 cr
		TOTAL: 86 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 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 8 credits. Basic theory, industry standards, and layout skills. Introduction to typography and to desktop publishing equipment and software as used in the graphic arts industry. F, S, Su

GART 0130 Intermediate Desktop Publishing/Print Media 8 credits. Produce artwork for print production using graphic manipulation software. Theory for design, color, and digital imaging combined with typography skills. F, S, Su

GART 0131 Advanced Press Operation 6 credits. This course is designed to train the student in the operation of larger sheet-fed offset presses. The student will produce single and multicolor close register printing on larger format presses. PREREQ: GART 0128. F, S, Su

GART 0132 Advanced Desktop Publishing/ Print Media 8 credits. Advanced training in more complex desktop publishing and electronic graphic applications. PREREQ: GART 0130. F, S, Su

GART 0133 Digital Imposition and Printing Technology 8 credits Prepare files with manual and digital imposition techniques. Produce printed products using offset and digital press technology. PREREQ: GART 0132. F, S

GART 0135 Graphic Arts Production 8 credits. Produce live work from concept to completion, layout, typeset, produce negatives for masking and platemaking, print and complete the bindery work on small and large printing projects for the University. May include supervised internships and job shadowing. F, S, Su

GART 0137 Screen Printing 7 credits. Provide first hand experience in the varied aspects of

screen printing processes and enable students to confidently produce quality, multi-colored and registered prints. F, S, Su

GART 0138 Introduction to Design/Print Media 8 credits. Introductory course exploring visual elements in design, color relationships, and effective communication through design. In-depth understanding of design and production as it relates to print media. F, S, Su

GART 0139 Digital Design Techniques and Emerging Technologies 8 credits. Digital application of design techniques. Using design in 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 8 credits. Production of digital design for application in print and on-line digital media. Application of production techniques in file editing and manipulation for multimedia output. F, S, Su

GART 0296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U or may be letter graded. PREREQ: Permission of instructor. D

GART 0298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be lettergraded. 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:

- 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 nwpm. All required courses must be completed with a "C" grade or better.

Required Courses:

required C	our ses.	
TGE 0158	Employment Strategies	2 cr
HO 0105	Introduction to Allied Heal	th
	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 Thera	py3 cr
HIT 0210	Medical Transcription I	3 cr
HIT 0211	Medical Transcription II	3 cr
HIT 0212	Medical Transcription III	3 cr
	Tota	126 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 3301,3302,3	301L,3302L	
	Anatomy and Physiology,	
	and Labs	8 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	4 cr
HIT 0208	ICD 9-CM Coding	3 cr
HIT 0209	CPT Coding	3 cr
HIT 0213	Advanced Coding	
	and Reimbursement	4 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: 60 or 6	4 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. PREREO: All first year courses must be completed. Graded P/NP. F, S

HIT 0202 Health Information I 4 credits. Introduction to the roles and responsibilities of the health information field. Study of the origin, use, content, format, record retention, numbering and filing systems of health information records. Study of computer applications found in health information. Accreditation and licensing standards along with state and federal laws

pertaining to health information. F, S

HIT 0203 Health Statistics and Quality Improvement 3 credits. The collection, calculation and presentation of routine health data in conjunction with the assessment, monitoring, evaluation and improvement of health care. PREREQ: MATH 1123, HIT 0201 and HIT 0202, F. S.

HIT 0204 Health Information II 4 credits. Theory, practice and skills in managing health

information and personnel. F, S

HIT 0207 Supervised Professional Practice II 4 credits. Directed clinical practice in a health information department under the preceptorship of a practicing professional for 40 hours per week for four weeks. PREREQ: HIT 0201, HIT 0202, HIT 0208, and HIT 0209. COREQ: HIT 0203, HIT 0204, and HIT 0213. Graded S/U. F, S

HIT 0208 ICD 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 4 credits. Practical application of ICD and CPT coding utilizing software and actual patient records. Application of coded data in payment and reimbursement systems, including the basic instructions for filing various types of health care claims and accounts receivable. Students will use medical software to perform competency-based simulations. PREREQ: HIT 0208 and HIT 0209. F. S

HIT 0296 Independent Study 1-8 credits.

Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U or may be letter graded. PREREQ: Permission of

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

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 Healt	h
	Careers	2 cr
HO 0106	Medical Terminology	2 cr
HO 0107	Medical Law and Ethics	3 cr
HO 0111	Introduction to Anatomy an	d
	Physiology	4 cr
	OR	
BIOL 3301	Anatomy and Physiology and	4 cr
BIOL 3302	Anatomy and Physiology	4 cr
HO 0208	Introduction to Pathology	3 cr
HO 0209	Principles of	
	Drugs and their Uses	3 cr

Bachelor of Science in Health Science Degree

This is a baccalaureate degree designed to provide Associate degree graduates the opportunity to pursue a Bachelor of Science (BS) degree in health studies and satisfy many of the prerequisites for a variety of health science-related graduate programs. The objective of the Bachelor of Science in Health Science (B.S.H.S.) program is to allow students who have graduated or are enrolled in health occupations training at the level of an associate degree to pursue a bachelor's degree with an advanced general health science focus. This degree provides a curriculum for students who desire an education that can serve as a foundation for additional professional or graduate work in several health science professions, including medicine, dentistry, hospital administration, medical technology, physical therapy, and occupational therapy. All students are encouraged to work closely with an advisor within their associate degree programs to ensure that the courses they plan to take will meet the specific career goals of each student.

Students pursuing the Bachelor of Science in Health Science Degree must complete the same goals as those pursuing other Bachelor of Science Degrees: Goals 1, 2, and 3; Goals 4 and 5, or 12 credits in the physical or biological sciences; two of Goals 6, 7, and 8; and three of Goals 9, 10A or 10B, 11, and 12.

Specific goal requirements may be listed under individual health occupations program curricula.

The B.S.H.S. Degree includes the following credit requirements:

Associate Degree Requirements: Students must be a graduate of or be enrolled in a health related program that awards an associate degree.* Students with an Associate of Applied Science Degree may transfer up to a maximum of 50 credits from this degree (all lower division 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: Atotal 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, 1111LGeneral Chemistry I, and Lab 5 cr CHEM 1112, 1112LGeneral 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

* The chemistry and physics requirements collectively satisfy Goals 4 and 5.

TOTAL: 28-33 cr

Upper Division Credit Choices and Electives

Students may choose from a variety of upper division courses on campus that will facilitate their career goals and opportunities. There are some upper division classes listed that require a lower division prerequisite or permission of the instructor.

The Bachelor of Science in Health Science is a multi-disciplinary/interdisciplinary degree and allows freedom for students to pursue areas of study that will best meet their professional or graduate school goals.

In order to assure that students have the appropriate prerequisites and/or permission from instructors, that degree requirements are met, and that the student has a degree that is appropriately focused, the degree plan will be approved by a committee consisting of the Associate Dean and qualified faculty and staff of the Health Occupations Department of the College of Technology.

Below are four areas that a student may select from to fulfill 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 from each of the areas listed below. Upper division courses must be related to the biological, psychological, health or physical sciences. The above-described committee will approve the selection of these upper division credits to assure coherence in the degree plan.

Degree Requirements:

1) Biological Sciences:

A minimum of 3 credits in upper division biology courses in addition to BIOL 3301 and BIOL 3302.

2) Psychological and Social Sciences:

ANTH 4407	Anthropology of Global Health	3 cr	
ANTH 4408	Topics in MedicalAnthropology3 cr		
ANTH 4409	Clinical	,	
	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	
And any other psychological and social science			
upper division course as approved by the BSHS			
Committee			

3) Health Education:

HE 3342	Stress and Emotional Health	3 cr
HE 3383	Epidemiology	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
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See Health Education Program course listings for any prerequisites

4) Health and Physical Sciences:

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CHEM 3301,3303	Organic Chemistry I,	
	and Lab	4 cr
CHEM 3302,3304	Organic Chemistry II,	
	and Lab	4 cr
PHYS 3312	Introduction to Biophysics	4 cr
P E 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
P E 3322	Introduction to	
	Sport Psychology	3 cr
PE 3370	Care and Prevention of	
	Athletic Injuries	3 cr

PE 4494 Adapted Physical Activity 4 cr And any other health and physical science upper division courses as approved by the BSHS committee

Students who desire to earn a non-teaching minor in Health Education should contact the Health Education Program for details.

A student must earn a minimum of 120 total credits, of which a minimum of 36 must be upper division credits, for a Bachelor of Science in Health Science degree.

HO Courses

HO 0105 Introduction to Allied Health Careers 2 credits. Introduction to allied health careers emphasizing the interrelationships and the team approach to health care. F, S, Su

HO 0106 Medical Terminology 2 credits. Body systems approach to theory and application of medical terms including anatomical, pathological, surgical and diagnostic as well as appropriate abbreviations. F, S, Su

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 pathology. 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 Professors: Johnson, Scott Associate Professor: McNeil 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. The Master of Training and Development is described in the Graduate Catalog.

The baccalaureate program in Human Resource Training and Development, aligned with State educational standards, provides the adult learner with opportunities to engage in the processes of inquiring. learning, and applying known competencies within the fields of Human Resource Development and Professional Technical Education.

For Program information showing descriptions of each option and course descriptions, go online to: http://www. isu.edu/academic-info/current/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. Field of Specialization 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 Ontion

nicai Teacher	Education Option	
HRD 4401	Foundations of Profession-	
	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 Specia	1
	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	3-8 cr
HRD 4468	Teaching Cooperative	
	Education and	
	School-to-Work	3 cr

Electives: Professional-Technical Teacher Education Option

	o p	
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 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

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	s3 cr
HRD 4431	Workforce Leadership	3 cr
HRD 4450	Principles of Adult Education	ı3 cr
HRD 4457	Facilitating Adult Learning	3 cr
HRD 4464	Instructional Facilities	
	Management	3 cr
HRD 4465	Practicum in Corporate	
	Training	3 cr

Electives: C	Corporate Training Op	tion
HRD 2207	Technology in Human Res	source
	Training and Developmen	t 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 4444	Career Guidance and Spec	ial
	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. Webbased 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 majors, for technical competence acquired through verified post-secondary professional-technical, proprietary, or military education evaluated by review committee. Graded S/U. F, S, Su

HRD 2296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U or may be letter graded. PREREQ: Permission of instructor. D

HRD 2298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not

included in the current program curriculum. May be repeated. Graded S/U, or may be lettergraded. 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 professionaltechnical (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

One Technical Certificate, one Advanced Technical Certificate, one Associate of Applied Science degree, and one Bachelor of Applied Science degree are available.

Information technology systems technicians maintain, service, and repair computer equipment and computer peripherals. They also install, troubleshoot and maintain computer networks.

Courses listed will be taught in sequential blocks of instruction. Successful completion of a course is required before the student can progress in the program. If the student fails any math, theory, or lab course, then that course must be repeated and a passing grade of C- or better obtained before the student can advance in the program. However, a C- could prevent a student from graduating if the cumulative grade point average is less than 2.0 (a C- equals 1.7). A student must have a 2.0 GPA in the program's required curriculum in order to be eligible for a certificate or degree.

Upon completion of the Associate of Applied Science degree, a Bachelor of Applied Science degree is available to a student with the completion of formally approved academic courses.

Program length will vary depending on student's academic qualifications at time of acceptance.

For a Program Information Packet, go to the URL http://www isu.edu/ctech/its/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	4 cr
ITS 0110	Networking Basics	3 cr
ITS 0120	Introduction to Unix	3 cr
ITS 0130	Basic Electronic Concepts	3 cr
ITS 0150	Networking I	4 cr
ITS 0160	Networking II	3 cr
ITS 0170	Computer	
	Peripheral Equipment	3 cr
ITS 0180	Network Operating Systems	3 cr
TGE 0158	Employment Strategies	2 cr
TGE 0135	Work Place Relations	3 cr
	TOTAL: 3	31 cr

Advanced Technical Certificate: Computer Network Technician

(3½ Semesters)

Required Courses:

ITS 0100	Computer System	
	Troubleshooting and Analysis	4 cr
ITS 0110	Networking Basics	3 cr
ITS 0120	Introduction to Unix	3 cr
ITS 0130	Basic Electronic Concepts	3 cr
ITS 0150	Networking I	4 cr
ITS 0160	Networking II	3 cr
ITS 0170	Computer	
	Peripheral Equipment	3 cr
ITS 0180	Network Operating Systems	3 cr
ITS 0200	Data Cabling	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	4 cr
ENGL 1101	English Composition	3 cr
TGE 0135	Workplace Relations	3 cr
TGE 0158	Employment Strategies	2 cr
	TOTAL: 5	3 cr

Associate of Applied Science Degree: Information Technology Systems

(4 ½ Semesters)

ITS 0180

Required Courses.			
ITS 0100	Computer System		
	Troubleshooting and Analysi	is 4 cr	
ITS 0110	Networking Basics	3 cr	
ITS 0120	Introduction to Unix	3 cr	
ITS 0130	Basic Electronic Concepts	3 cr	
ITS 0150	Networking I	4 cr	
ITS 0160	Networking II	3 cr	
ITS 0170	Computer		
	Peripheral Equipment	3 cr	

Network Operating Systems 3 cr

ITS 0200	Data Cabling	7 cr
	2	,
ITS 0210	Customer Relations Practicum	2 cr
ITS 0220	Networking III	3 cr
ITS 0230	Wireless Technologies	3 cr
ITS 0240	Securing the LAN	4 cr
TGE 0135	Workplace Relations	3 cr
TGE 0158	Employment Strategies	2 cr

General Education Requirements:

ENGL 1101	English Composition	on 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: 66 cr

ITS Courses

ITS 0100 Computer Systems and Troubleshooting 4 credits. Fundamentals of computer hardware and software. Students will describe the internal components of a computer, assemble a computer system, install an operating system, and troubleshoot using system tools and diagnostic software. Lecture/laboratory. F, S

ITS 0110 Networking Basics I 3 credits. Classroom and laboratory experience in current and emerging networking technology. Includes network terminology and protocols. LANs, OSI model, cabling, cabling tools, IP addressing, and network standards. Uses networking software, tools, and equipment. Lecture/Laboratory F, S

ITS 0120 Introduction to Unix 3 credits. Introduction to UNIX operating system and 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 3 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 4 credits. Study of advanced diagnostic troubleshooting methods for network systems and applications, of IP routing, of OSI model, and of safety procedures. PREREO: ITS 0110. 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, PREREO: 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-onskills. Lecture/Laboratory. PREREQ: ITS 0160 F S

ITS 0240 Securing the LAN 4 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 0160 and ITS 0220. 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

41/2 Semester Program

Program Coordinator and Master Instructor: Snarr Instructors: Ball, Larson, Maclure, Shepherd, Steffler, Womack

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**

(11/2 Semesters)

Objective: To prepare students as entrylevel 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 Programmab	le
	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 Edu	cation Requirements:	
ENGL 1101	English Composition	3 cr
Goal 2	English composition	3 cr
	TOTAL	

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:

required C	our ses.	
INST 0236	Applications of Electronic	,
	Electrical, and Process Con	ntrol
	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 Ed	lucation Requirements	:
ENGL 1101	English Composition	3 cr
Goal 2		3 cr
Goal 3		3 cr
CHEM 1111, 11	11LGeneral Chemistry I, and L	ab
	(Goal 5)	5 cr
	OR	

Advanced Technical Certificate: Industrial Controls

(4 Semesters)

Required Courses:

ELTY 0131	Electrical Theory I	4 cı
ELTY 0132	Electrical Theory II	5 cı
ELTY 0133	Applied Mathematics I	4 cr
ELTY 0134	Applied Mathematics II	5 cı
ELTY 0135	Electrical Laboratory I	4 ci
ELTY 0136	Electrical Laboratory II	5 cı
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 cı
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:			

scheral Education Requirements.			
ENGL 1101	English Composition	3 cı	
Goal 2		3 c1	

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. PREREO: 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 2044 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. Setup, maintenance, and troubleshooting of pneumatic control systems, air supply, air regulators, pressure gauges pneumatic transducer calibration, control valve operation with and without positioner, controller operation set point, measurement error, offset, proportional band, reset, derivative, reverse and direct acting. F, S, Su

INST 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**

41/2 Semester Program

Program Coordinator

and Advanced Instructor: K. Buffaloe Instructors: S. Larson, Maclure,

Shepherd, Womack

One Advanced Technical Certificate, one Associate of Applied Science Degree, and one Bachelor of Applied Science Degree are available.

Objective: To provide students with the skills to work in an ever-expanding laser/ optics field. Graduates in this program will be able to perform duties such as cavity alignment for medical lasers, optical path alignment for scientific testing and many numerous applications that deal with the light spectrum. They will be efficient with optoelectronic components for triggering and sensing circuits; lens configurations for distance and movement measurements; fiber optics for data transfer and optical alignments and will have a basic knowledge of laser to computer communication. This is a hands on learning environment with practical industry challenges.

All theory classes and laboratory application classes of these theories require concurrent enrollment.

Selection of the Electronics option for each accepted student in the Electronic Core curriculum will occur in the second semester. Acceptance into particular options is based upon available openings and other factors such as a grade point average and attendance.

For a Program Information Packet showing descriptions of each option, course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to http://electronics. isu.edu/laser tech.shtml.

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	n 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
C	4°	

General Education Requirement:

English Composition 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 Simulat	ion 2 cr
ELEO 0233	Optoelectronics and	
	Data Acquisitions Theory	5 cı
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 cı
ELEO 0248	Geometric Optics and	
	Applications Lab	6 cı
TGE 0158	Employment Strategies	2 cr
General Edu	ication Requirements	:
ENGL 1101	English Composition	3 cr
Goal 3		3 cr
Goals 6, 7, 9, 10	A, 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 computeraided 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 lettergraded. PREREQ: Permission of instructor. D

Law **Enforcement**

2 to 41/2 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 0171 Cadet Practicum 3 LAWE 0172 Health and Fitness I 3 LAWE 0174 Human Relations 2 LAWE 0175 Health and Fitness II 1 LAWE 0176 Investigations II 3 LAWE 0177 Investigations II 3 LAWE 0178 Law I 3 LAWE 0179 Law II 3 LAWE 0180 Patrol Procedures I 3 LAWE 0181 Patrol Procedures II 3 LAWE 0182 Detention Procedures II 1 LAWE 0183 Detention Procedures III 2 LAWE 0200 Law Enforcement Internship I2 LAWE 0201 Law Enforcement Internship II3			
LAWE 0172 Health and Fitness I 3 LAWE 0174 Human Relations 2 LAWE 0175 Health and Fitness II 1 LAWE 0176 Investigations I 3 LAWE 0177 Investigations II 3 LAWE 0178 Law I 3 LAWE 0179 Law II 3 LAWE 0180 Patrol Procedures I 3 LAWE 0181 Patrol Procedures II 3 LAWE 0182 Detention Procedures II 1 LAWE 0183 Detention Procedures III 2 LAWE 0200 Law Enforcement Internship I2 LAWE 0201 Law Enforcement Internship II3	LAWE 0170	Detention Procedures I	3 cr
LAWE 0174 Human Relations 2 LAWE 0175 Health and Fitness II 1 LAWE 0176 Investigations I 3 LAWE 0177 Investigations II 3 LAWE 0178 Law I 3 LAWE 0179 Law II 3 LAWE 0180 Patrol Procedures I 3 LAWE 0181 Patrol Procedures II 3 LAWE 0182 Detention Procedures II 1 LAWE 0183 Detention Procedures III 2 LAWE 0200 Law Enforcement Internship I2 LAWE 0201 Law Enforcement Internship II3	LAWE 0171	Cadet Practicum	3 cr
LAWE 0175 Health and Fitness II 1 LAWE 0176 Investigations I 3 LAWE 0177 Investigations II 3 LAWE 0178 Law I 3 LAWE 0179 Law II 3 LAWE 0180 Patrol Procedures I 3 LAWE 0181 Patrol Procedures II 3 LAWE 0182 Detention Procedures II 1 LAWE 0183 Detention Procedures III 2 LAWE 0200 Law Enforcement Internship I2 LAWE 0201 Law Enforcement Internship II3	LAWE 0172	Health and Fitness I	3 cr
LAWE 0176 Investigations I 3 LAWE 0177 Investigations II 3 LAWE 0178 Law I 3 LAWE 0179 Law II 3 LAWE 0180 Patrol Procedures I 3 LAWE 0181 Patrol Procedures II 3 LAWE 0182 Detention Procedures II 1 LAWE 0183 Detention Procedures III 2 LAWE 0200 Law Enforcement Internship I2 LAWE 0201 Law Enforcement Internship II3	LAWE 0174	Human Relations	2 cr
LAWE 0177 Investigations II 3 LAWE 0178 Law I 3 LAWE 0179 Law II 3 LAWE 0180 Patrol Procedures I 3 LAWE 0181 Patrol Procedures II 3 LAWE 0182 Detention Procedures II 1 LAWE 0183 Detention Procedures III 2 LAWE 0200 Law Enforcement Internship I2 LAWE 0201 Law Enforcement Internship II3	LAWE 0175	Health and Fitness II	1 cr
LAWE 0178 Law I 3 LAWE 0179 Law II 3 LAWE 0180 Patrol Procedures I 3 LAWE 0181 Patrol Procedures II 3 LAWE 0182 Detention Procedures II 3 LAWE 0183 Detention Procedures III 2 LAWE 0200 Law Enforcement Internship I2 LAWE 0201 Law Enforcement Internship II3	LAWE 0176	Investigations I	3 cr
LAWE 0179Law II3LAWE 0180Patrol Procedures I3LAWE 0181Patrol Procedures II3LAWE 0182Detention Procedures II1LAWE 0183Detention Procedures III2LAWE 0200Law Enforcement Internship I2LAWE 0201Law Enforcement Internship II3	LAWE 0177	Investigations II	3 cr
LAWE 0180Patrol Procedures I3LAWE 0181Patrol Procedures II3LAWE 0182Detention Procedures II1LAWE 0183Detention Procedures III2LAWE 0200Law Enforcement Internship I2LAWE 0201Law Enforcement Internship II3	LAWE 0178	Law I	3 cr
LAWE 0181Patrol Procedures II3LAWE 0182Detention Procedures II1LAWE 0183Detention Procedures III2LAWE 0200Law Enforcement Internship I2LAWE 0201Law Enforcement Internship II3	LAWE 0179	Law II	3 cr
LAWE 0182 Detention Procedures II 1 LAWE 0183 Detention Procedures III 2 LAWE 0200 Law Enforcement Internship I2 LAWE 0201 Law Enforcement Internship II3	LAWE 0180	Patrol Procedures I	3 cr
LAWE 0183 Detention Procedures III 2 LAWE 0200 Law Enforcement Internship I2 LAWE 0201 Law Enforcement Internship II3	LAWE 0181	Patrol Procedures II	3 cr
LAWE 0200 Law Enforcement Internship I 2 LAWE 0201 Law Enforcement Internship II 3	LAWE 0182	Detention Procedures II	1 cr
LAWE 0201 Law Enforcement Internship II 3	LAWE 0183	Detention Procedures III	2 cr
	LAWE 0200	Law Enforcement Internship	I2 cr
TGE 0158 Employment Strategies 1	LAWE 0201	Law Enforcement Internship I	I3 cr
TGE 0130 Employment Strategies 1	TGE 0158	Employment Strategies	1 cr

General Education Requirements:

English Composition

3 cr

ENGL 1101

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) c	redits from the follow	ing:
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 Administrat	tion
	of Justice	3 cr
POLS 2249	Introduction to Criminal La	w3 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 pro-

gram tailored to the specific demands of the police profession. Lectures include nutrition, fitness lifestyles, and health. A first aid course for police officers including cardio-pulmonary resuscitation (CPR) is included in this series of instruction. F, S

LAWE 0174 Human Relations 2 credits. This course provides officers with better understanding of their roles in the community and how the public responds to the police officer. Courses focus on the abilities of the officer to communicate with the public in a professional manner with respect to the task at hand. F, S

LAWE 0175 Health and Fitness II 1 credit. This course is a continuation of LAWE 0172. PREREO: LAWE 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 LAWE 0176. PREREO: LAWE 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 LAWE 0178. PREREO: LAWE 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. PRE-REQ: 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,

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 1 Officer

LAWE 0201 Law Enforcement Internship II 3 credits. This course is a continuation of LAWE 0200. PREREQ: LAWE 0200.

LAWE 0296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

LAWE 0298 Special Topics 1-8 credits. Addresses the specific needs of industry, enabling students to upgrade technical skills that are not included in the current program curriculum. May be repeated. Graded S/U, or may be lettergraded. 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 0111 Introduction to Anatomy and Physiology 4 cr MSTH 0100 Introduction to Massage 2 cr Therapy

Required Cou	irses:	
HO 0106	Medical Terminology	2 cr
HO 0208	Introduction to Pathology	3 cr
MSTH 0104	Introduction to Kinesiology	3 cr
MSTH 0105	Principles of	
	Therapeutic Massage	2 cr
MSTH 0107	Professional	
	Massage Techniques	6 cr
MSTH 0121	Massage Therapy Practicum*	² cr
MSTH 0140	Cllinical Techniques	
	and Assessment	4 cr
MSTH 0160	Advanced Therapeutic	
	Massage Techniques	4 cr
MSTH 0170	Spa Techniques	1 cr
MSTH 0203, 0203I	Asian Bodywork	
	Theory and Techniques	1 cr
MSTH 0210	Business Skills for Massage	2 cr
MSTH 0221	Massage Therapy Internship	3 cr
DAAC and/or PEA	AC Body/Mind Integrative	
	Classes (see list of	

recommended classes below) 2 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)

HO 0111 Introduction to

Anatomy and Physiology

310		
MSTH 0100	Introduction to	
	Massage Therapy	2 cr
Required Cou		
HO 0106	Medical Terminology	2 cr
HO 0208	Introduction to Pathology	3 cr
MSTH 0104	Introduction to Kinesiology	3 cr
MSTH 0105	Principles of	
	Therapeutic Massage	2 cr
MSTH 0107	Professional Massage	
	Techniques	6 cr
MSTH 0121	Massage Therapy Practicum*	2 cr
MSTH 0140	Cllinical Techniques	
	and Assessment,	4 cr
MSTH 0160	Advanced Therapeutic	
	Massage Techniques	4 cr
MSTH 0170	Spa Techniques	1 cr
MSTH 0203, 0203L		
	Theory and Techniques	1 cr
MSTH 0210	Business Skills for Massage	2 cr
MSTH 0221	Massage Therapy Internship	3 cr
DAAC and/or PEA	AC Body/Mind Integrative	
	Classes (see list of	•
	recommended classes below)	2 cr
Choose 3 cred	lits from the following	:
BI 0120	Concepts of Accounting	3 cr
BI 0144	Document Processing	3 cr
BI 0170	Introduction to Computers	3 cr
BI 0171	Computerized Accounting	3 cr
HO 0107	Medical Law and Ethics	3 cr
General Educ	ation Requirements:	
Goals 1 and 2		6 cr
Goal 3		3 cr
PSYC 1101	Introduction to General	
	Psychology (Goal 12)	3 cr
	(:C1-: 41 - DCIIC	

Choose 2 CREDITS from the following Body/Mind Integrative Fitness Classes:

This is a 1-credit course that is repeated for

Goals 4 through 11 (if working toward a BSHS,

must choose BIOL 1101)

~	•		
PEAC	0143C	Advanced Judo	1 cr
PEAC	0143B	Intermediate Judo	1 cr
PEAC	0143A	Beginning Judo	1 cr
PEAC		Targit Fit (TM) Conditioning	1 cr
PEAC	0135B	Intermediate Hatha Yoga	1 cr
PEAC		Introduction to Hatha Yoga	1 cr
PEAC	0134B	Intermediate Weight Training	1 cr
PEAC	0134A	Beginning Weight Training	1 cr
PEAC	0133	Jogging/Personal Fitness	1 cr
		Physical Education	1 cr
PEAC	0132	Individualized	
PEAC	0122B	Intermediate Yoga	1 cr
PEAC	0122A	Beginning Yoga	1 cr
PEAC	0121B	Intermediate Pilates Matwork	k1 cr
PEAC	0121A	Beginning Pilates Matwork	1 cr
		to Pilates-Based Method	1 cr
PEAC	0120	Introduction	
		- Dance Conditioning II	1 cr
DAAC	0176	Pilates	
		Pilates-Based	1 cr
DAAC	0175	Dance Conditioning I	
Ciuss	Co.		

Choose 3 credits from the following:

CHOOSE D	creates irom the rono wing	5 •
BI 0120	Concepts of Accounting	3 cr
BI 0144	Document Processing	3 cr
BI 0170	Introduction to Computers	3 cr
BI 0171	Computerized Accounting	3 cr
HO 0107	Medical Law and Ethics	3 cr

MSTH Courses

MSTH 0100 Massage Therapy Career Exploration 2 credits. The importance of touch, human contact, and the roles they play in careers in touch. Participants gain recognition, education, and self analysis of massage therapy as a career. S, Su

MSTH 0104 Introduction to Kinesiology 3 credits. Fundamental principles of anatomical terminology, osteology, arthrology. Basic observation and palpation skills required. Cross-listed as PTA 0104. PREREQ: Admission to the MSTH or PTA program. F

MSTH 0105 Principles of Therapeutic Massage 2 credits. History, requirements to practice, professionalism, ethics, sanitary and safety practices, effects, benefits, indications, contra-indications, equipment and products, policies, procedures, basic intake and consultation. PREREQ: Admission to MSTH program. F

MSTH 0107 Professional Massage Techniques 6 credits. Classification of movements, body mechanics, exercise for the practitioner, draping, basic and professional massage routines, hydrotherapy, and working with special populations. Foundations for developing massage practitioner skills. PREREQ: Admission to MSTH program. F

MSTH 0121 Massage Therapy Practicum 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 0140 Clinical Techniques and Assessment 4 credits. Clinical massage techniques and assessment. PREREQ: Admission to MSTH program. S

MSTH 0160 Advanced Therapeutic Massage Techniques 4 credits. Exploration of various advanced massage techniques. PREREQ: Admission to MSTH program. S

MSTH 0170 Spa Techniques 1 credit. Introduction to spa techniques and the spa environment. PREREQ: Admission to MSTH program. Su

MSTH 0203 Asian Bodywork Theory and Techniques 1 credit. Basic Asian bodywork theory and technique. PREREQ: Admission to MSTH program. COREQ: MSTH 0203L. Su

MSTH 0203L 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

MSTH 0221 Massage Therapy Internship 3 credits. Students are supervised in an actual work environment performing massage therapy skills to gain work readiness skills. Su

MSTH 0296 Independent Study 1-8 credits. Addresses specific learning needs of individuals for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of 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 lettergraded. PREREQ: Permission of instructor. D

Medical Assisting

Program Coordinator, Clinical Coordinator, and Master Instructor: Bird Instructor: Terrell

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:

- Help physicians examine and treat patients by taking and recording vital signs and medical histories, explain treatment procedures to patients, prepare patients for exams, assist during the exams and other office procedures, collect blood and other specimens, and perform basic lab procedures.
- Perform routine tasks to keep offices running smoothly, such as schedule appointments, process insurance claims, perform bookkeeping, and maintain electronic medical records to name a few.

The Idaho State University College of Technology Medical Assisting Program is accredited by the Commission on Accreditation of Allied Health Educational Programs (CAAHEP, www.caahep.org), upon the recommendation of the Curriculum Review Board of the American Association of Medical Assistants Endowment (AAMAE). The program's accreditation status is current until September, 2016.

Commission on Accreditation of Allied Health Education Programs 1361 Park St Clearwater FL 33756 (727) 210-2350 Fax: (727) 210-2354

NOTE Graduates will be eligible to take the national certification exam for the Certified Medical Assistant (CMA). Individuals who have been found guilty of a felony, or pleaded guilty to a felony, are not eligible to take the CMA Exam. However, the Certifying Board may grant a waiver based upon mitigating circumstances

The MA Curriculum is sequenced to provide the student with the best possible learning experience. Students who do not complete proper class sequence each semester will not progress to the next semester. ALL classes must be completed with a grade of "C" or higher to progress to any Clinical or Externship course.

For a Program Information Packet showing descriptions of each option, course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to http://www.isu. edu/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.

Introduction to Computers	3 cr
ICD9-CM Coding	3 cr
CPT Coding	3 cr
Introduction to	
Allied Health Careers	2 cr
Medical Terminology	2 cr
Medical Law and Ethics	3 cr
Introduction to Pathology	3 cr
Basic Principles of Drugs	
and their Uses	3 cr
Introduction to Medical	
Assisting Administrative	4 cr
Clinical Medical Assisting I	4 cr
Phlebotomy and Administrati	on
of Medications	4 cr
Computers in Medical Assisting	g4 cr
Clinical Externship	6 cr
Clinical Externship Seminar	1 cr
Clinical Medical Assisting II	4 cr
Administrative Externship	2 cr
Administrative	
Externship Seminar	1 cr
Professional Development	1 cr
Clinical Medical Assisting III	4 cr
Introduction to Anatomy	
and Physiology	4 cr
OR	
L, 3302, 3302L	
Anatomy and Physiology,	
and Labs	8 cr
	ICD9-CM Coding CPT Coding Introduction to Allied Health Careers Medical Terminology Medical Law and Ethics Introduction to Pathology Basic Principles of Drugs and their Uses Introduction to Medical Assisting Administrative Clinical Medical Assisting I Phlebotomy and Administrati of Medications Computers in Medical Assisting II Clinical Externship Clinical Externship Seminar Clinical Medical Assisting II Administrative Externship Administrative Externship Seminar Professional Development Clinical Medical Assisting III Introduction to Anatomy and Physiology OR 2, 3302, 3302L Anatomy and Physiology,

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 ModernSociety	3 cr
PSYC 1101	Introduction to	
	General Psychology	3 cr
	TOTAL : 75 S	20 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

MA0200 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. PRE-REQ: 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 externallearning/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

MA0298 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: Hunevcutt

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:

riequirea co.		
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 a	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	n 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
	T	OTAL: 64 cr

PARA Courses

PARA0110 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 guardian-

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 ru-

dimentary 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 attrial, 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 II3 credits. Continued development of issue identification and legal analysis skills. Indepth 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. PRE-REQ: 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 for the enhancement of knowledge and skills within the program area under the guidance of an instructor. May be repeated. Graded S/U, or may be letter-graded. PREREQ: Permission of the instructor. D

PARA 0298 Special Topics 1-8 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 lettergraded. 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:

Medical Terminology	2 cr
0,7	
	3 cr
OR	
Introduction to	
Computer Systems	3 cr
Fundamentals of	
Emergency Medical Care	4 cr
Fundamentals of Emergency	
Medical Care Laboratory	4 cr
Emergency	
Department Clinicals	2 cr
EMS Field Practicum	2 cr
TOTAL	17 cr
	Computer Systems Fundamentals of Emergency Medical Care Fundamentals of Emergency Medical Care Laboratory Emergency Department Clinicals EMS Field Practicum

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

required i i c	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 requi	irement (Goal 3)	3 cr

ENGL 1101	English Composition	3 cr
ENGL 1102	Critical Reading and Writ	ing 3 cr
HCA 0210	Medical Terminology and	
	Communication	2 cr
	OR	
HO 0106	Medical Terminology	2 cr
SOC 1101, SOC	C 1102, or PSYC 1101	3 cr
, , , , , , , , , , , , , , , , , , , ,	TOTAL: 22	or 26 cr
Required P	rofessional Courses:	
Second Year, F		
EMTP 0201	Paramedic I	5 cr
EMTP 0201L		3 cr
EMTP 0201L	Paramedic Clinical	3 (1
ENTIF 0202	Practicum I	2 cr
EMTP 0203	Advanced Airway	2 01
EWITP 0203	Management Practicum	1 cr
EMTD 0210 021	OL Paramedic Pre-Hospital	1 C1
EM11P 0210,021		7
	Pharmacology, and Lab	7 cr
C 137 C		.: 18 cr
EMTP 0220	pring Semester Paramedic II	<i>5</i>
		5 cr
EMTP 0220L	Paramedic II Laboratory	3 cr
EMTP 0222	Paramedic Clinical	
EL (ED 0222	Practicum II	2 cr
EMTP 0223	Paramedic Field Practicur	n I 2 cr
EMTP 0225,022	25L Cardiology and	
	EKG Interpretation, and I	
		.: 19 cr
	ummer Semester	
EMTP 0230	Paramedic Field Practicur	
	TOTAI	· 1 cr

TOTAL: 4 cr

TOTAL for Advanced Technical Certificate 59 or 67 cr

Associate of Science Degree: Paramedic Science

5 Semesters

Pre-profession	onal Requirements:	
BIOL 1101,11011	L Biology I, and Lab	4 cr
BIOL 3301,33011	L 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 Edu	cation 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 0210,0210I	Paramedic I Pre-Hospital	
	Pharmacology, and Lab	7 cr
	TOTAL:	18 cr
Second Year, Spr	ing 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 0225,0225	L Cardiolog	gy and
	EKG Interpretation, and La	b 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. COREO: 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. COREO: 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. COREO: 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 suppor. 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 EMTP0220/0220L. 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

EMTP2225 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. COREO: 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. Su

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 lettergraded. PREREQ: Permission of instructor. D

Physical Therapist Assistant

41/2 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.

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 3301,3	3301L Anatomy and Physiology,	
	and Lab	4 cr
BIOL 3302,3	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
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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 7	/5 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 Letters.

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. PRE-REQ: 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

PTA0213 Clinical Affiliation I7 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) 71/2 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, 33011	L 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
PREREQUIS	SITES TOTAL: 14, 15, 18 or	19 cr
_		

Program Req	uirements:	
	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 an	d
	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. PREREO OR COREO: 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. PRE-REQ: 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
 - 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
BIOL 3302,3302L	Anatomy and Physiology,	
	and Lab*	4 cr
CHEM 1101	Introduction to	
	General Chemistry	3 cr

	OR	
CHEM 1111, 11111	LGeneral Chemistry I, and Lab	5 cr
COMM 1101	Principles of Speech	3 cr
ENGL 1101	English Composition	3 cr
HO 0106	Medical Terminology	2 cr
	OR	
HCA 2210	Medical Terminology	
	and Communication	2 cr
MATH 1108	Intermediate Algebra	3 cr
	or sufficient ACT/Compass s	core
PSYC 1101	Introduction to	
	General Psychology**	3 cr
	OR	
SOC 1101	Introduction to Sociology**	3 cr
	OR	
SOC 1102	Social Problems**	3 cr
*Collectively, thes	e Biology courses satisfy Goal	ls
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
BIOL 3302,3302L	Anatomy and Physiology,	
	and Lab*	4 cr
ENGL 1102	Critical Reading and Writ	ing
	(Goal 1)	3 cr
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 t	o admissionboth 3301 and	1 3302
are required.		

Respiratory Therapy Courses

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
	RESP 2200 RESP 2211 RESP 2214 RESP 2214 RESP 2231 RESP 2232 RESP 2280 RESP 3301 RESP 3310 RESP 3320 RESP 3325 RESP 3325	RESP 2200 Introduction to Respiratory Care RESP 2211 Pharmacotherapy for Respiratory Therapists RESP 2214 Introduction to Pulmonary Disease RESP 2231 Patient Assessment I RESP 2232 Patient Assessment II RESP 2230 Case Management I RESP 3301 Mechanical Ventilators RESP 3310 Case Management II RESP 3320 Clinical Practice of Therapeutic Procedures I RESP 3320 Clinical Practice of Therapeutic Procedures II RESP 3330 Clinical Practice of Therapeutic Procedures II RESP 3330 Clinical Practice of Therapeutic Procedures III RESP 3335 Clinical Practice of

RESP Courses

RESP2200 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

RESP3301 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. PRE-REO: 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 3325. 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 61/2 Semesters

Coordinator and Instructor: Slack Instructors: R. Buffaloe, Durtschi, L. Larson, S. Larson, Maclure, Norton, Shepherd, Womack

One Advanced Technical Certificate, one Associate of Applied Science Degree, and one Bachelor of Applied Science Degree are available.

Objective: To provide students with the skills to become professional, highly skilled, broad-based electronics technicians who can work within an ever-changing arena—electronics.

Graduates will be able to install, maintain and repair equipment and circuit integrated in audio, video, wireless, digital and pulse electronic systems. It is, by design, a balance of analog and digital training with specialties in wireless telecomm and RF applications, microprocessor interfacing, digital and analog TV and component level circuit analysis.

For a Program Information Packet showing descriptions of each option, course descriptions, lists of course sequences, and the cost of books, tools, uniforms, fees, and other expenses, go online to http://electronics.isu.edu/elec_sys_tech.shtml.

This program requires students to achieve certain grades in order to advance each semester. Specific information is available in the program's student handbook.

All theory courses require concurrent enrollment in the laboratory courses in which those theories are applied.

Selection of the Electronics option for each accepted student in the Electronics Core Curriculum will occur in the second semester. Acceptance into particular options is based upon available openings and other factors such as a minimum 2.5 cumulative grade point average in core courses and attendance.

Technical Certificate: Laser/Electro-Optics Technology

The following courses are required in addition to the completion of either the Advanced Technical Certificate or the Associate of Applied Science Degree for a certificate under the Electronic Systems Technology Program:

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):

coursesj.		
ELTR 0271	Introduction to Lab Simulation	12 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

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	n 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	g 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 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 discreet components and circuitry. Review of digital components and principals. COREQ: ELSY 0253 and ELSY

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 communciation, 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 Animatic	n4 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:

Requirea Coi	urses:	
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 c
WDM 0187	Web Graphics and Animation	14 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 Developmen	t3 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 V	Writing
	(Goal 1)	3 cr
COMM 1101	Principles of Speech (Goal 2)3 cr
MATH 1123	Math in Modern Socie	ety
	(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

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, S

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. S

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. S

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 that a C (2.0) before continuing in the program.

Technical Certificate: Welder 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
	TOTA	AL: 32 cr

Advanced Technical Certificate: Welder-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
	TOT	AL: 64 cr

Associate of Applied Science Degree: Welder-Fitter

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

General Education Requirements:

ENGL 1101	English Composition	on 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 dif-

ferent 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 I 2 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 highpurity 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

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/studentservices/tge.pdf.

This program requires students to achieve certain grades in order to advance each semester. Specific information is available in the program's student handbook.

TGE Basic Courses

TGE 0100A Algebra 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 ENGL 0090. Not eligible for academic credit. D

TGE Core Courses

COMM 1101 Principles of Speech 3 credits. (see description in the Department of Communication and Rhetorical Studies, in the College of Arts and 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 0135 Workplace Relations 3 credits. Workplace topics emphasizing internal and external customer service and including study

external customer service and including study and practice in effective interpersonal and communication skills, ethics, leadership, and teamwork. D

TGE 0151 Technical Writing I 2 credits. Course provides instruction in informal technical report writing and business correspondence. Includes grammar/punctuation review, introduction to word processing, and technical

TGE 0152 Technical Writing II 2 credits. Course provides instruction in application of formal technical report writing strategies and fundamentals of research. D

terminology/vocabulary building. D

TGE 0158 Employment Strategies 1-2 credits. Comprehensive study and practice of job search activities, including company research, networking strategies, interviewing behavior, and writing the resume and business correspondence. Course culminates in the preparation of a professional portfolio. The two-credit option provides students with extensive interviewing experience in a variety of settings. May be graded S/U. D

TGE 0162 Orientation to Computer Technology 1 credit. Use of instructor software (Moodle) and on-line library services, Internet research, use of BengalWeb and e-mail services. Overview of basic word processing features and the development of alphabetic and numeric information input through touch keyboarding. Open exit is available when student reaches proficiency rate established by program area. F, S

TGE 0257 Applied Ethics in Technology 1 credit. Ethical issues in engineering and contemporary technology that engineering technicians may face in professional practice. Topics include moral obligations and rights of society, employers, colleagues and clients; cost-benefitrisk 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

Christine Brower, Director (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**

Dr. 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, customized training for business and industry, and webinars and classes broadcaset on the Idaho Education Network. Classes (including short-term workshops) are offered both on and off campus during afternoons, weekdays, evenings, and Saturdays. The purpose of open-enrollment classes is to offer training and/or retraining for persons who have already entered the labor market and who desire to achieve stability or advancement in gainful employment. Customized courses are offered to assist local industry with expansion of the workforce and upgrading and retraining of their current employees. Instruction may include laboratory, shop and related classroom instruction appropriate for the specific group being served.

Open enrollment offerings are announced each semester through the press, radio, and special bulletins. More than 500 courses ranging in length from one week to two years are offered and start at varying times throughout the year.

Classes in the following general areas are offered each year:

Agriculture Automotive Trades **Business Management** Computers Drafting Electronics Electrical Health Home Economics Office Practices Production Management Real Estate Related Industrial Welding

Customized courses are offered at the request of a specific business. Curriculum is designed to meet the need of employees and is offered either on campus or on site at the business. Classes can also be offered through distance learning classroom and via the Internet.

In addition to short-term courses, WORK-FORCE TRAINING verifies the experiential credits for A.A.S. Degrees in the following areas:

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 shortterm courses, people are encouraged to register for classes as early as possible. Persons interested in enrolling in any of these offerings may contact WORKFORCE TRAINING.

Southeast Idaho Region 5 Tech Prep

Coordinator: Ann Marie Corbridge

Southeast Idaho Region 5 Tech Prep 921 S 8th Ave Stop 8380 Pocatello ID 83209-8380 (208) 282-4663

http://www.isu.edu/techprep/

Tech Prep is a national and state effort which emphasizes collaboration between high schools and Idaho technical colleges while preparing students for entry into the workforce. Students enrolled in approved high school programs may articulate postsecondary credit toward technical or professional degrees. Students must complete their approved high school course with a minimum grade of 80% in order to transcript college credit. This process allows students to begin working on an Associate of Applied Science (A.A.S.) degree or a certificate while still in high school. The A.A.S. degree articulates into Idaho State University's Bachelor of Applied Technology degree.

Up to eight (8) professional/technical credits earned through the Tech Prep articulation agreements while in high school may be used to fulfill academic elective requirements when students are pursuing a Bachelor of Science or Bachelor of Arts degree.

A Tech Prep student can earn a degree in less time or go into greater depth of study at the college level. In Region V, there are more than 90 high school programs that articulate credit to Idaho State University.

The Tech Prep office provides support services designed to assist high school students to articulate college credits while in high school. Students are encouraged to contact the Tech Prep office for further information.

stitute

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 Director and Professor: Lohse Associate Professors: Cady, Sammons,

J. Strickland

Research Associate Professor:

Laxminarayan

Assistant Professor: Frost

Affiliate Professors: Leibrock, Longley,

Murray

Affiliate Assistant Professors: Moulton,

Slay, Willis

The Informatics Research Institute (IRI) is an academic unit providing coordination for several interdisciplinary degrees and research centers across campus. Informatics is an integrative discipline that arises from the synergistic application of computational, informational, organizational, cognitive, and other disciplines whose primary focus is in the acquisition, storage and use of information in a broad spectrum of domains. It includes the study and application of information technology in the arts, sciences, commerce, medicine, and society in general. The IRI has a mission in teaching, research, and service. Activities include:

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

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

ARCHAEOLOGICAL INFORMATICS

CITI-AI – Center for Innovative Technology in Archaeological Informatics. The CITI-AI leads research in the organization and analysis of archaeological information. It creates and maintains active partnerships within the archaeological community and serves as an interdisciplinary center of activity uniting basic informatics research and modeling within the Informatics Research Institute, Idaho State University, and its affiliated faculty. The Center is directed by E.S. Lohse, Professor of Anthropology and Division Head for Anthropology, Idaho Museum of Natural History.

SIMPLOT DECISION SUPPORT CENTER

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

INFORMATION ASSURANCE

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

Information Assurance Degree Concentrations

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

Certificates for Concentrations:

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

Program of Study:

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

CNSS 4011 -- Students in the Computer Information System major may take 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

Director and Professor: Lineberry Assistant Professor: Dunzik-Gougar

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

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

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

For further information and a scholarship application, visit the Institute's scholarship web page at http://www.isu.edu/departments/inse/tntp html

Idaho State University Administration

Bradley II Itali General Course		I.DPRESIDENT OF THE UNIVERSITY		
PROVOST AND VICE PRESIDENT FOR ACADEMIC AFFAIRS. (208) 282-2171	Bradley H. Hall	General Counsel	(208)	282-3234
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Philip E. BlickAssistant Vice President/Director, Research Park(208) 282-2404David BuckDirector, Purchasing Services(208) 282-3111Roger EganController(208) 282-2512Randy GainesChief Information Officer(208) 282-2499Joseph HanAssociate Vice President for Facilities Services(208) 282-4229Leo HerrmanBudget Officer(208) 282-4277Kent LarsonDirector, Financial Aid and Scholarships(208) 282-2981David J. MillerDirector, Human Resources(208) 282-2517Lynette MitchellAssistant Vice President for Finance/Administration and Academic Affairs(208) 282-4380(Vacant)Director, Equal Opportunity, Affirmative Action, and Diversity(208) 282-3973KENT M. TINGEY, D.A.VICE PRESIDENT FOR UNIVERSITY ADVANCEMENT(208) 282-3198George CasperDirector, Event Management(208) 282-3198Donald J. ColbyAssociate Vice President for Development(208) 282-375Kent S. KunzInterim Director, Alumni Relations(208) 282-3755Kent S. KunzDirector, Government Relations(208) 241-2900	(Vacant)	Director, Contracts	(208)	282-2714
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K.C. Felt				
Kent S. Kunz	•	<u>.</u>	` /	
Mark N. Levine Director, Marketing and Communications (208) 282-4407				
	Mark N. Levine		(208)	282-4407

(Vacant)	VICE PRESIDENT FOR STUDENT AFFAIRS	(208) 282-2315
Ches Barnes	Director, Bennion Student Union	(208) 282-7865
Maria Fletcher	Director, International Programs	(208) 282-5304
(Vacant)	University Student Conduct Administrator	(208) 282-2794
Troy Kase	Director, Career Center	(208) 282-2380
Doug Milder	Director, Campus Recreation Department	(208) 282-3151
Shane Ostermeier	Director, New StudentServices	(208) 282-2794
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
Craig Thompson	Director, University Housing	(208) 282-2120
Scott Turner	University Business Officer and Director, Recruitment	(208) 282-4422
Kerry Williamson	Director, Early Learning Center/Baby U	(208) 282-2769

State Board of Education

(Vacant)	
Emma Atchley	
Kenneth Edmunds	
Roderick W. Lewis	Member
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Richard Westerberg	President 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 Academic Affairs; Professor, Pharmacy Practice and Administrative Sciences; Affiliate Faculty, Sociology, Social Work, and Criminal Justice. B.A. 1974, University of California at Los Angeles; M.A. 1981, Ph.D. 1984, University of Southern California. (1985)

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., Visiting Assistant Professor, Biological Sciences. B.S. 1996, Idaho State University; M.S. 2007, Montana State University; Ph.D. 2006, Montana State University. (2007)

Alexander, Kathleen, * Clinical Assistant Professor, Physical and Occupational Therapy, B.S. 1983, M.S. 1990, University of Oklahoma Health Sciences. (1991-2003, 2010)

Allen, Diane, Senior Instructor, Technical General Education. B.A. 1975; M.A. 1981; Glassboro State College. (1999)

Allen, James A., Senior Lab Supervisor, Human Lab Simulator; 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)

Alston, Nancy Ann Evans, Faculty Physician, Clinical Assistant Professor (nonclassified), Family Practice Residency Program. B.A. 1972; M.D. 1975, University of Utah. (1998)

Ament, Robin, Clinical Assistant Professor, Communication Sciences and Disorders. B.A. 1985, Brigham Young University; M.A. 1993, University of Colorado. (2010) 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.,* Department Chair and 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)
- 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)
- Aubrey, Debra Larsen, Research Associate Professor, Institute of Rural Health.. B.S. 1990, Brigham Young University; M.S. 1993; Ph.D. 2002, Idaho State University. (1998)
- Austin, Kristi, Reference Librarian (equivalent rank, Assistant Professor), Library. B.A. 1983, University of Washington; M.L.S. 2002, Emporia State University. (1995)
- Aytes, Kregg John,* Associate Dean, College of Business; Professor, Computer Information Systems. B.S. 1984, Ph.D. 1993, University of Arizona. (1993)
- Baergen, Ralph,* Professor, Philosophy; Chair, Human Subjects Committee. B.A. 1983, University of Manitoba; M.A. 1989, Ph.D. 1990, Syracuse University. (1994)
- 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)
- Bala, Janet, Life Sciences and Ray J. Davis Herbarium Collections Manager, Idaho Museum of Natural History. B.S. 2002; M.S. 2007, Idaho State University. (2007)
- 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)
- Bargen, Gabriel, Assistant Professor, Communication Sciences and Disorders. B.S. 2000, Texas Christian University; M.S.E. 2002, University of Nebraska at Kearney; M.A. 2006, University of Kansas Medical Center; Ph.D. 2010, University of Kansas. (2010)
- 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, 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)
- **Beaty, Lawrence H.**, Program Coordinator, Energy Systems Engineering Technology. (2006)
- **Beck, Susan,** Coordinator and Instructor, Massage Therapy. B.S. 1976, Colorado State University. (2006)
- **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, Lecturer, Physics. B.S. 1999, Idaho State University; M.N.S. 2007, Idaho State University. (2009)
- **Bhushan, Alok,*** Professor, 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 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,** Program Coordinator, Clinical 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, Pharmacy Practice and Administrative Sciences; Clinical Assistant Professor, Clinical Research Center; Clinical Assistant Professor, Pocatello Family Medicine Clinic. PharmD, 2004, Idaho State University (2006)
- **Bosworth, Kenneth W.,*** Professor, Computer Science. B.S. 1977, M.S. 1980, Ph.D. 1984, Rensselaer Polytechnic Institute. (1992)
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Cortez, Lisa, Pharmacy Practice and Administrative Sciences

Cox, Kim L., Family Medicine; Physician Assistant Studies

Crandall, Monte, Physician Assistant Studies

Cummings, Frederick M., Physics

Cusack, Barry J., Pharmacy Practice and Administrative Sciences

Cussler, Richard, Nursing

DaBell, Jeff, Dental Sciences

Darrah, Suzanne Lee, Pharmacy Practice and Administrative Sciences

Davis, Keith, Nursing

Davis, Thomas V., Physician Assistant Studies

Dean, Patricia, Research Affiliate Faculty, Anthropology

DeChristoforo, Robert,* Pharmacy Practice and Administrative Sciences

Degnan, Robert D., Nursing

Dehler, Carol M., Geosciences

Denny, Eve, Pharmacy Practice and Administrative Sciences

Denny, Kevin, Pharmacy Practice and Administrative Sciences

Denton, Amy, Biological Sciences

Denton, David Miles, Pharmacy Practice and Administrative Sciences

Dero, Douglas P., Family Medicine

DeSano, Edward A., Family Medicine; Physician Assistant Studies

Desmond, Kevin, Pharmacy Practice and Administrative Sciences

Dettloff, Richard W.,* Pharmacy Practice and Administrative Sciences

DeVeaux, Linda, Physics

DeWall, Kevin, Engineering

Dickens, Michael D., Pharmacy Practice and Administrative Sciences

DiGrazia, Robert, Dental Sciences

Distefano, Salvatore, Pharmacy Practice and Administrative Sciences

Dolence, Larran, Pharmacy Practice and Administrative Sciences

Dowding, Brady, Pharmacy Practice and Administrative Sciences

Doyle, Ryan, Dental Sciences

Driver, Paul, Pharmacy Practice and Administrative Sciences

Duncan, Ed, Dental Sciences

Dye, Bruce, Radiographic Science

Dye, Joel, Family Medicine

Dyer, Donald A., Family Medicine

Eaton, Judy, Health Care Administration

Eder, William R., Nursing

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

Endo, Ronald, Pharmacy Practice and Administrative Sciences

Eng, Allen, Radiographic Science

Engelbrecht, Emily B., Pharmacy Practice and Administrative Sciences

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

Frandsen, Justin, Dental Sciences

Frank, Biological Sciences

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

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

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

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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

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

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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

Jepsen, Shawn, Dental Sciences

Jeter, Charisse, Biological Science

Jett, Gail M., Nursing

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

Keys, Dell, Nursing

Khatain, Kenneth, Pharmacy Practice and Administrative Sciences

Killian, Scott, Pharmacy Practice and Administrative Sciences

King, Janet, Nursing

Kintzoglou, Alexander,* Pharmacy Practice and Administrative Sciences

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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

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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

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Luedtke, Karla, Dental Hygiene

Luke, Sally Louise, Nursing

Lyons, Heidi Lynn, Education

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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

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Meyer, Larry, Pharmacy Practice and Administrative Sciences

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Mickelson, Michael R., Family Medicine, Physician Assistant Studies

Middlebrooks, Mark,* Pharmacy Practice and Administrative Sciences

Mikesell, Gail R., Nursing

Milford, Gordon, Pharmacy Practice and Administrative Sciences

Miller, A. E., Nursing

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Miller, Ronald E., Physician Assistant Studies

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Millward, Steven, Physics

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Moore, Diane, Sociology, Social Work and Criminal Justice

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Murphy, Patti, Nursing

Murray, David, Physician Assistant Studies

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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

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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'Neil, Jan, Pharmacy Practice and Administrative Sciences

O'Rear, James H., Physics

Ogden, Heath, Biological Sciences

Olgilvie, Anne, Nursing

Olsen, Richard, Biomedical and Pharmaceutical Sciences

Olsen-Fisher, Myrna, Nursing

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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

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Plummer, Mitchell A., Geosciences

Podany Jr., Joseph E., Physician Assistant Studies

Polson, Preston, Dental Sciences

Poreba, Jan, Pharmacy Practice and Administrative Sciences

Porter, Bryan, Dental Sciences

Porter, Chris, Nursing

Porter, John, Pharmacy Practice and Administrative Sciences

Porter, Warren, Biological Sciences

Poulson, Neil J., Biological Sciences

Powers, Vicki, Sociology, Social Work, and Criminal Justice

Price, Richard N., Pharmacy Practice and Administrative Sciences

Proctor, Brian Dale, Physician Assistant Studies

Przybylski, Kevin Gerard,* Pharmacy Practice and Administrative Sciences

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

Rossi, Joseph P.,* Pharmacy Practice and Administrative Sciences

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, Radiographic Science

Sawyer, Dennis, Pharmacy Practice and Administrative Sciences

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

Schwindt, Dwight, Military Science

Scoville, Craig, Biological Sciences

Seaman, R. Lynn Greenberg,* Pharmacy Practice and Administrative Sciences

SedImayer, 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

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Sorensen, Michele, Sport Science and Physical Education

Spall, Jane, Nursing

Sparrell, Marvin, Nursing

Spritzer, David M., Nursing; Physician Assistant Studies

Stander, Michael D., Pharmacy Practice and Administrative Sciences

Standley, Elizabeth J., Pharmacy Practice and Administrative Sciences

Staples, Mary E., Pharmacy Practice and Administrative Sciences

Stark, Nola, Nursing

Stauts, Braden, Dental Sciences

Stephens, George H., Family Medicine

Stephens, James D., Geosciences

Stephens, Steve, Psychology

Stephenson, Thomas, Biological Sciences

Stephenson-Foltz, Leslie, Sociology, Social Work and Criminal Justice

Stevens, Dennis, Biological Sciences

Stewart, Kelley, Biological Sciences

Stille, Kristine A., Pharmacy Practice and Administrative Sciences

Stocking, Lisa, Family Medicine

Stone, Bob, Nursing

Stoutin, Sherry Dunn, Nursing

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Stucki, Kristen, Pharmacy Practice and Administrative Sciences

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; 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

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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

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Werner-Leap, Kathleen, Pharmacy Practice and Administrative Sciences

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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 Siences; Geosciences

Wise, David, Family Medicine

Wold, Roberta, Sociology, Social Work and Criminal Justice

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

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Akersten, William A., Associate Professor, Biological Sciences and Geosceinces; 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

Ashton, Carol Ann,* Associate Professor, Nursing. 2001-2011

Bain, Barbara A., Director of Undergraduate Studies and Professor, Communication Sciences & Disorders, and Education of the Deaf. 1989-2004

Balsley, Ronald D., Professor, Marketing. 1978-2005

Beebe, Thomas G., Instructor, Electronics Technology. 1957-1989

Beezhold, 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

Christie, Carole R., Professor, Dental Hygiene. 1979-2011

Coffland, Jack A., Professor, Education; Coordinator, Center for Accountability Systems (Education). 1992-1999.

Cowles, Lois Anne, Associate Professor, Sociology, Social Work, and Criminal Justice. 1993-2003

Cresswell, Donald J., Associate Professor, Mathematics. 1968-2000

Cullen, Carol, Instructor, Office Occupations. 1963-1990

Davis, Everett Eugene (Gene), Professor, Educational Leadership; Director, Intermountain Center for Education Effectiveness. (1992-2007)

Dial, Theresa Gail, Professor, Art. 1974-2008

Dolsen, Arthur, Professor, Foreign Languages. 1983-2009

Downing, Joan K., Public Services Director, Library (equivalent rank, Professor). 1969-1986

Dundas, Mary L.,* Director, 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

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Galizia, Virginia, Associate Dean, College of Pharmacy; Professor, Pharmacy Practice and Administrative Sciences. (1996-2002)

Gantt, Gamewell D.,* Professor, Management. 1982-2004

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Gibson, Philip J., Department Chair, Instructor, Business and Service. 1981-2000

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House, Edwin W., Chief Research Officer; Professor, Physiology. 1966-2004

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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, Biomedical and Pharmaceutical Sciences. 1969-1998

Jacobson, Grace, Associate Professor, Nursing. 1981-2002

Jenkins, Robert M., Coordinator and Senior Instructor, Automotive Technology. 1974-2005

Jensen, Jay, Dean of Students. 1956-1989

Joe, Victor C., Department Chair and Professor, Psychology. 1969-2003

Johnson, Frank J., Instructor, Civil Engineering Technology. 1966-1993

Johnson, Mark A., Professor, Management. 1987-2009

Jones, Gordon F., Associate Dean, School of Applied Technology. 1968-1995

Kawamura, Carole J., Assistant Professor, Dental Hygiene. 1975-2002

Kearns, Richard L.* Director of Undergraduate Programs and Professor, Health and Nutrition Sciences. 1988-2004

Kidd, Paul F., Instructor, Graphic Arts. 1965-1995

Kijinski, John L., Dean, College of Arts and Sciences; Professor, English. 1985-2007

Kilpatrick, John A., Professor, Management. 1977-2006

King, Kathleen., Associate Professor, English. 1984-2007

King, William L., Professor, English and Philosophy. 1960-1994

Kirkpatrick, David, Professor, Military Science, Director of Housing. 1951-1955, 1958-1981

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

Laurence, Dennis, Professor, English and Philosophy. 1971-1992

LeBlanc, Ronald P., Professor, Marketing; Adjunct Faculty, Sport Science and Physical Education. 1980-2006

Lerch, Robert, Professor, Education. 1971-1995

Linder, Allan, Professor, Biological Sciences. 1963-1988

Lloyd, Arthur P., Professor, Counseling. 1967-2001

Lloyd, Marcia L., Professor, Dance. 1977-2001

Longmore, Dean R., Professor, Department of Finance. 1978-2001

Lu, Joseph, Professor, Libraries. 1972-1992

Luckey, Angela S., Associate Professor, Educational Foundations. 1996-2009

Marcum, R. Laverne, Professor, Education. 1969-1984

Marley, Bert, Professor, History. 1967-1989

Martindale, Charlene, Associate Professor, English/Instructor-Coordinator, Business Communication. 1970-1999

Matteson-Howell, Janice, Chair, Technical Department. 1984-2007

Matthews, Leroy J., Professor, Psychology. 1968-2000

Mauch, John E., Professor, Journalism. 1971-1999

Maughan, Ralph B.,* Professor, Political Science. 1971-2007

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, Clifton L., Master Instructor, Civil Engineering Technology. 1985-2011

Merrill, Donald, Master Instructor, College of Technology. 1971-2008

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 and Philosophy. 1990-2000

Myers, Rosemary N., Director, Individualized Education Programs; Assistant Professor, English and Philosophy. 1960-1999

Newsome, Jack D.,* Associate Professor, Educational Foundations. 1997-2011

Nickisch, Craig W., Professor, Foreign Languages. 1988-2004

Nilson, Douglas C., Associate Professor, Political Science. 1989-2009

Nitse, Philip S.,* Professor, Marketing. 1993-2010

Noakes, Sandra D., Assistant Professor, Physical Education. 1966-2002

Ore, H. Thomas, Professor, Geology. 1963-1997

Owens, John "Jack" B.* Professor, History. 1975-2011

Paarmann, Carlene S.,* Professor, Dental Hygiene. 1976-2011

Parker, Barry R., Professor, Physics. 1967-1997

Parker, Stephen K., Associate Professor, Mathematics. 1972-2002

Pawar, Sheelwant B., Professor, Management. 1967-1999

Pehrsson, Robert S.,* Professor, Teacher Education. 1980-2003

Peña, Sally J.,* Professor, Educational Foundations. 1990-2010

Pierson, Donald S.,* Professor, Sociology, Social Work and Criminal Justice. 1985-2011

Pincock, John E., Instructor, Diesel Technology. 1970-1996

Priddy, Kathleen S., Senior Instructor, Office Technology. 1976-2005

Pumphrey, Lela D. "Kitty," Professor, Accounting. 1988-2006

Rankin, Roger A.,* Professor, Educational Foundations. 1981-2011

Ronald, Bruce P., Professor, Chemistry. 1968-2001

Rose, Fred L., Professor, Biological Sciences. 1969-2000

Rost, Robert, Senior Instructor, Trade and Industrial Department. 1972-2007

Rucker, Jack, Director, School of Vocational-Technical Education. 1955-1976

Ruckman, JoAnn S., Co-Director, Women Studies Program; Professor, History. 1974-2001

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 and Philosophy. 1967-1999

Schow, Ronald L., Professor, Audiology. 1975-2007

Schwendig, Warren Lee, Professor, Marketing. 1968-2003

Scott, Darrell F., Assistant Dean, College of Business; Senior Lecturer, Marketing. 1970-2007

Seeley, Rodney R.,* Professor, Physiology. 1973-2008

Sharp, William T., Professor, Pharmacy Practice and Administrative Sciences. 1975-2000

Smedley, Thayne, Professor, Audiology. 1983-2001

Smith, Denzell S., Professor, English and Philosophy. 1972-1991

Smith, Jill M., Assistant Professor, Accounting. 1986-2009

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

Stratton, William E.,* Professor, Management. 1974-2011

Streubel, Donald P., Professor, Biology. 1974-1999

Strommen, Dennis, Department Chair and Professor, Chemistry. 1992-2004

Sutcliffe, Roy M., Instructor, Electronics Technology. 1958-1989

Sutter, Jr., E. John, Professor, Chemistry. 1971-2004

Swanson, Merwin, Professor, History. 1972-2002

Sweat, Robert C., Coordinator and Senior Instructor, Computer/Business Equipment Technician Program. 1978-2004

Tate, Paul D., Dean, Graduate School; Professor, English and Philosophy. 1976-2006

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

Urfer, Alexander G.,* Professor, Physical and Occupational Therapy. 1977-2011

Vegors, Stanley, Professor, Physics. 1958-

Vittetoe, Dennis, Master Instructor, Electronic Systems Technology. 1976-2003

Volkers, Ray, College of Technology Senior Instructor, Computer Software Development Technology. 1982-1987; 1990-2003

Walsh, Dennis M., Professor, English and Philosophy. 1979-2004

Walsh, Mary Ellen,* Professor, English and Philosophy. 1971-2002

Watters, Ronald, Senior Lecturer, Sport Science and Physical Education. 1974-2007

Watts, Robert T., Associate Professor, Computer Information Systems. 1978-1999

Wells, Gary R.,* Professor, Finance. 1965-2009

Westphal, Jonathan A. G.,* Professor, English and Philosophy. 1981-2011

Wiegand, Gayl H., Professor, Chemistry. 1965-2004

Wilson, Albert E.,* Professor, Engineering and Nuclear Science, 1966-1995

Wissa, Maher F., Professor, Geomatics Technology. 1993-2008

Intercollegiate Athletics-Directors and Coaches

Alexander, Geoff, Assistant Coach, Men's Basketball

Bailey, Donald Lee, Jr., Associate Head Coach, Offensive Coordinator, Football

Brock, Thomas, Assistant Athletic Trainer

Campbell, Robert M., Strength & Conditioning Coach

Drayton, Daniel, Assistant Coach, Football

Gibson, Allison, R., Head Coach, Women's Soccer

Goeltz, Robert, Head Coach, Tennis

Gorney, Allison M. Assistant Coach, Volleyball

Graziano, Nancy, Associate Athletic Director

Green, Jordan, Assistant Coach, Women's Basketball

Griffin, Ruditsky, Assistant Coach, Football

Hogan, Becky, Assistant Coach, Soccer

Hooper, Kellie, Coach, Women's Golf

Hyte, David, Assistant Coach, Volleyball

Janssen, Brian, Head Coach, Cross Country

Kramer, James, Assistant Athletic Director

Kramer, Michael, Head Coach, Football

Miller, Drew, Assistant Coach, Football

Munger, Angela, Assistant Coach, Women's Basketball

Nielsen, Dave, Head Coach, Track

Obray, Gregory R., Assistant Athletic Trainer

O'Brien, Joe, Head Coach, Men's Basketball

Poulson, Jackie, Assistant Coach, Track

Rigell, Michael, Assistant Coach, Football

Robertson, Holly, Assistant Coach, Women's Basketball

Roche, Derrick, Assistant Coach, Football

Rodel, Mark G., Assistant Coach, Tennis

Rogers, Jessica, Assistant Coach, Softball

Smaha, Ryan, Assistant Coach, Football

Sololewsky, Seton, Head Coach, Women's Basketball

Steuart, Matthew C., Assistant Athletic Director/Director of Academics

Stucki, Misty D., Cheer Coach/Spirit Squad, ISU Cheerleading

Stutzman, Craig, Assistant Coach, Football

Teichert, Chad, Head Coach, Volleyball

Troxell, Matthew, Assistant Coach, Football

Vargas, Sara, Assistant Athletic Trainer

Walsh, Timothy, Assistant Coach, Men's Basketball

Wotowey, Jodi, Head Athletic Trainer

Wright, Julia, Head Coach, Softball

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