University-Wide Graduate Courses

A university-wide graduate course represents a certain type of graduate activity with the same course number and title across all academic units. University-wide graduate courses include 589 Selected Topics, 593 Thesis, 600 Assessment, and 693 Dissertation, which represent work done on graduate culminating activities and are therefore known as culminating activity courses; some graduate programs have culminating activity courses that are numbered differently than these university-wide courses.

553 PROFESSIONAL EDUCATION (Variable Credit). Available at special fee rate (approximately one-third of part-time fee rate). Credit is awarded for professional development only and cannot be applied to a graduate degree program by policy of the State Board of Education.

580-589 SELECTED TOPICS (Variable Credit). Subjects normally offered and studied in one department can be divided into as many as 10 areas. Each area will be assigned one number of the 580-589 group. Although the topics considered in the courses in any one area may vary from semester to semester, repeated use of any one number implies that the topics continue to be selected from the same area.

590 PRACTICUM/INTERNSHIP (Variable Credit). To earn graduate credit you must have a 3.00 cumulative GPA and no more than 12 credits may be applied toward a graduate degree or second undergraduate degree. Some graduate programs, however, accept only 3 internship credits. Practicum/Internship cannot be repeated to improve a grade.

Note: An undergraduate internship is an entry-level employment experience related to the discipline. The graduate intern already has an undergraduate degree and is expected to perform with a higher level of responsibility, decision-making authority, and accomplishment.

591 PROJECT (Variable Credit). Execution of a substantial exercise that demonstrates the ability to successfully and independently carry out a professional activity similar to what is encountered in the professional workplace; archival of the results of the project is required according to standards approved by the Graduate College. Pass/fail only.

Note: An undergraduate internship is an entry level employment experience related to the discipline. The graduate intern already has an undergraduate degree and is expected to perform with a higher level of responsibility, decision-making authority, and accomplishment.

592 PORTFOLIO (Variable Credit). A broad-based selection of significant student work that is used to appraise student performance and professional development. A portfolio reflects the depth and breadth of a student's educational growth since entering the graduate program. Portfolios may include, but are not limited to, classroom examinations, journals, writing samples, publishable scholarship, professional projects, annotated bibliographies, and artistic endeavors. Pass/fail only.

593 THESIS (Variable Credit). Independent research or creative activity at the master's level resulting in a thesis that must be defended at a final oral examination and archived in the university library. The thesis must be written in clear and effective English and presented in a format that conforms to the standards of the Graduate College. Pass/fail only.

594 CONFERENCE OR WORKSHOP (Variable Credit). Intensive daily instruction by a recognized expert in a specialized topic over a period of time considerably shorter than a semester. Workshop credits may not transfer.

595 READING AND CONFERENCE (Variable Credit). The conduct of topical research, assigned readings or literature review. The faculty advisor and the student prepare and sign an agreement describing the amount and type of work to be accomplished.

596 INDEPENDENT STUDY (Variable Credit). Advanced study of a specialized topic; design and completion of a project may be included in the study. The student works with a high degree of independence to meet well-defined goals under the supervision of a member of the graduate faculty. Requires submission of a completed Application for Graduate Independent Study prior to the deadline specified in the academic calendar.

597 SPECIAL TOPICS [Required Modifier] (Variable Credit). Instruction on a topic that is not included in the catalog of regular graduate courses; the topic is indicated by the required modifier. Descriptions for these courses are given in the Schedule of Classes published each semester.

598 SEMINAR (Variable Credit). Small group meetings for the exchange of ideas, debate of issues, or presentation of research. Format, conduct, and purpose of seminars vary widely among disciplines.

600 ASSESSMENT [Required Modifier] (Variable Credit). Examination or other assessment required by a graduate program. The required modifier is used to indicate the type of assessment and may be chosen from the following possibilities: Capstone Course (either graded or pass/fail), Comprehensive Examination, Preliminary Examination, or Thesis or Dissertation Proposal (Pass/fail only).

693 DISSERTATION (Variable Credit). Independent research at the doctoral level resulting in a dissertation that must be defended at a final oral examination and archived in the university library and with UMI. The dissertation must be written in clear and effective English and presented in a format that conforms to the standards of the Graduate College. Pass/fail only.

696 DIRECTED RESEARCH (Variable Credit). Research conducted by a graduate student under the supervision of a member of the graduate faculty. Requires the clear statement of a hypothesis or proposition, a review of the relevant literature, analysis and synthesis of data or scholarly evidence, and the inference of conclusions. The results must be stated in a report written in clear and effective English. Requires submission of an Application for Directed Research prior to the deadline specified in the academic calendar. Either graded or pass/fail.

697 SPECIAL TOPICS [Required Modifier] (Variable Credit). Instruction on a topic that is not included in the catalog of regular graduate courses; the topic is indicated by the required modifier. Descriptions for these courses are given in the Schedule of Classes published each semester. Either graded or pass/fail.
College of Arts and Sciences

Dean: Martin Schimpf
Education Building, Room 601, Mail Stop 1500
Telephone (208) 426-1414
PAX (208) 426-3006

Associate Dean: Anthony Roark
Telephone (208) 426-1414

General Information
As the university’s largest and most comprehensive academic unit, the College of Arts and Sciences enjoys a broad mission in teaching, research and creative activity, and service. In teaching, the College of Arts and Sciences offers a core curriculum that prepares students by developing their communication, numerical, and analytical skills; enhancing their creative abilities; fostering in them a greater awareness of human values and needs; and encouraging in them a lifelong appreciation of learning for its own sake.

Additionally, the College offers strong graduate programs for students of the arts, humanities, sciences, and interdisciplinary studies, and a full array of elective and service courses for students majoring in other subjects.

In research, the College generates and disseminates knowledge through basic and applied research, scholarship, and creative activity, thereby enhancing the scientific, technological, humanistic, and cultural environment of the state, the region, and the larger society.

In service, the College meets the educational, economic, and cultural needs of the state through research, publications, workshops, and a rich diversity of cultural and entertainment events.

Graduate Programs
The College of Arts and Sciences offers graduate programs leading to doctor and master degrees and graduate certificates in the following fields:

- art education (master of arts); visual arts (master of fine arts)
- biology (master of arts and master of science)
- creative writing (master of fine arts)
- earth science (master of science)
- mathematics (master of science)
- mathematics education (master of science)
- English, education, rhetoric and composition (master of arts)
- geology (master of science); GIS (graduate certificate)
- geophysics (doctor of philosophy and master of science)
- geosciences (doctor of philosophy)
- interdisciplinary studies (master of arts and master of science)
- music education, pedagogy, performance (master of music)
- raptor biology (master of science)
- technical communication (master of arts, graduate certificate)

Activities
Departments and centers within the College of Arts and Sciences sponsor a variety of activities that complement and enhance the graduate curriculum. For instance, the English Department is the home of several publishing ventures, including cold-drill (Boise State University’s national award-winning student literary magazine), Ahsahta Press (poetry by western poets and others), the Western Writers Series (booklets about the lives and works of Western authors), Poetry in Public Places (posters distributed throughout the Northwest), and the Idaho Review (a national literary journal published by the M.F.A. in Creative Writing program and featuring the work of the best writers in this country).

The Hemingway Western Studies Center sponsors an annual national book competition and has been designated by the Library of Congress as the Idaho Center for the Book, responsible for initiating and coordinating statewide exhibitions and events related to books and publishing.

The biological sciences department is affiliated with the World Center for Birds of Prey, a research and breeding center for raptors, located near Boise. In addition, the biological sciences department is the home of the Raptor Research Center. Also, the biological sciences department is the home of the Biomolecular Research Center (BRC). The BRC emphasizes molecular studies and the techniques used to investigate medical issues.

CGISS, the Center for Geophysical Investigation of the Shallow Subsurface, a research center housed within the geosciences department, focuses on investigating engineering applications and environmental problems in the shallow subsurface of the earth. The geosciences are also affiliated with the Permian Research Institute (PRI), and the Geospatial Research Facility (GRF). Both of these research units are designed for students to learn geology and geographical information systems.
Department of Art

Chair: Richard Young
Liberal Arts Building, Room 232, Mail Stop 1510
Telephone (208) 426-4070
FAX (208) 426-1243
e-mail: artdept@boisestate.edu
www.boisestate.edu/art/

Graduate Faculty: Stephanie Bacon, Laurie Blakeslee, Jim Budde, Niharika Dinkar, Tom Elder, Jill Fitterer, Francis Fox, John Francis, Kathleen Keys, Larry McNeil, Tudor Mitroi, Janice Neri, Jonathan Sadler, Dan Scott, Cheryl Shurtleff-Young, Anika Smulovitz, Ron Taylor, Lee Ann Turner, Jennifer Wood, Richard Young

Adjunct Graduate Faculty: Karen Brown

Graduate Degrees Offered
- Master of Fine Arts, Visual Arts
- Master of Arts in Art Education

General Information

Master of Fine Arts  The Department of Art offers a minimum two year, full-time Master of Fine Arts degree program in the following emphasis areas: painting, drawing, alternative media, photography, printmaking, ceramics, art metals, and sculpture. The degree requires 60 total credits distributed as follows: 9 credits in art history, 30 credits in studio, 6 credits in Graduate Concourse, 3 credits in Graduate Seminar, 6 credits in thesis and 6 credits in general electives.

Students admitted to the program are provided with private studio space. Graduate faculty hold regular studio visits and consultations. The MFA degree program fosters students’ creative, intellectual, and professional development as artists who produce excellent work, are able to discuss and contextualize their work cogently, and who are prepared to enter various career paths available to artists. Course work emphasizes applied study, art history, theory and criticism. A Visiting Artist Program that brings a wide range of artists and scholars to campus on a regular basis enhances the MFA experience by providing lectures, workshops, and critiques. The program culminates in an exhibition of a body of work, a written thesis that supports the work, and an oral defense of both.

Master of Arts in Art Education  The program leading to the Master of Arts in Art Education degree is designed to meet the needs of art educators working in schools, museums and other arts organizations or communities, and gives students the opportunity to gain the knowledge and skills necessary to become reflective and well-informed art educators. It does not lead to initial certification nor does it require certification for admission. Course work focuses on advanced curriculum development, an examination of contemporary issues relating to art and education, and advanced study of art history and studio practices. Students may select from two possible culminating experiences.

Teaching Assistantships  are available for full-time students and are awarded competitively. Assistantships include an out-of-state tuition waiver, in-state fee waiver, and a stipend. Assistants must enroll for a minimum of nine credit hours each semester and must meet any other requirements as set forth by the Graduate College. Applications are available at the Graduate College website and must be received in the Department of Art on or before January 15.

Master of Fine Arts, Visual Arts

Graduate Program Director: Cheryl Shurtleff-Young
PAAW Building, Room 104, Mail Stop 1510
Telephone (208) 426-3450
e-mail: cshurtle@boisestate.edu

Application and Admission Requirements

Fall admission only. To be considered as a graduate student in the MFA program, applicants must possess a B.A., B.F.A., or a M.A. degree in Art from an accredited institution and have and maintain a minimum grade point average of 3.0. Applicants must also have completed a minimum of 12 credits of undergraduate art history prior to taking courses for graduate credit. Undergraduate coursework in modern and/or contemporary art history and art theory is highly desirable. Admission is competitive and the achievement of minimum requirements does not guarantee acceptance to the program.

Students must first be admitted to the Graduate College and have official transcripts from all institutions previously attended submitted to Graduate Admission and Degree Services, MG 141, Boise State University, Boise, ID 83725. The Application for Graduate Admission form may be completed and submitted online at the Graduate College website. This form must be submitted to Graduate Admissions at least 4 weeks prior to January 15.

Applicants must also provide the following to the Art Department, Boise State University, 1910 University Drive, Boise, ID 83725-1510 by January 15:

- A portfolio of at least 20 labeled slides or 20 digital images in PowerPoint format representing a recent body of work, with an accompanying slide list, and an artist statement that addresses the work submitted. Other documentation formats (CD-Rom, DVD, or VHS) are accepted for Alternative Media applicants whose work originates in any of these media.
- Three letters of recommendation from professionals in the field.
- A statement of purpose outlining your educational and professional background, the overall objectives in your studio work (including intended area of emphasis), why you want to pursue an M.F.A., and why you are interested in the program. If you are applying for a Graduate Assistantship include a separate statement explaining your interest in the award and your qualifications for receiving it.
- Self-addressed, stamped envelope.

Degree Requirements

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 575 Graduate Seminar</td>
<td>3</td>
</tr>
<tr>
<td>ART 576 Studio Practices (3-6 credits per semester)</td>
<td>18</td>
</tr>
<tr>
<td>ART 577 Graduate Concourse</td>
<td>6</td>
</tr>
<tr>
<td>ART 580-588 Selected Topics and/or ART 596 Independent Study</td>
<td>12</td>
</tr>
<tr>
<td>ART 589 Selected Topics Art History or other graduate level art history</td>
<td>9</td>
</tr>
<tr>
<td>ART 593 Thesis</td>
<td>6</td>
</tr>
<tr>
<td>Electives at the graduate level</td>
<td>6</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>60</strong></td>
</tr>
</tbody>
</table>
Master of Arts in Art Education

Graduate Program Coordinator: Kathleen Keys
PAAW Building, Room 116A, Mail Stop 1510
Telephone (208) 426-3873
e-mail: KathleenKeys@boisestate.edu
www.boisestate.edu/art/

Application and Admission Requirements

Admission Requirements Fall or Spring admission. An applicant must satisfy the minimum admission requirements of the Graduate College (see Graduate Admissions Regulations in this catalog). Admission is competitive and the achievement of minimum requirements does not guarantee acceptance to the program. To be considered as a graduate student in the MA program, applicants must possess an earned baccalaureate or professional degree in a relevant program from an accredited college or university by the expected date of entry. Applicants must possess a minimum of 3.0 cumulative grade point average (GPA) based on a 4.0 scale in all previous undergraduate work and a minimum of 3.3 cumulative GPA based on a 4.0 scale in all previous relevant graduate work. Artistic proficiency within at least one studio area is required.

Application Procedures A prospective student must follow the general graduate application procedure for degree-seeking students (see Applying as a Degree-Seeking Student in this catalog). Students must first be admitted to the Graduate College and have official transcripts from all institutions previously attended submitted to Graduate Admission and Degree Services, MG 141, Boise State University, Boise, ID 83725-1110.

The prospective M.A. in Art Education student must also submit the following to the Department of Art graduate program director by January 15 to be considered for Fall admission, or by October 1 to be considered for Spring admission:

1. A statement outlining your educational and professional background, your professional objectives, and philosophy of art or art education and why you are interested in the program.
2. Three letters of recommendation in which the applicant’s experience working in art and/or educational settings and potential contribution to the field of art education are described from professionals in art education or related fields.
3. A portfolio of at least 20 labeled slides of a recent body of work with an accompanying slide list, and an artist statement that addresses the work submitted.
4. An example of academic or professional writing.
5. Additional related work samples.
6. Evidence of any public or private teaching experiences.
7. Evidence of successful completion of basic K-12 art education methods courses; both K-8 and 6-12 or their equivalents. Deficiencies may be completed upon acceptance.

Degree Requirements

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 501 The Fine Arts: Analysis and Appreciation in the Educational Program</td>
<td>3</td>
</tr>
<tr>
<td>ART 551 Curriculum Development and Assessment in Art Education</td>
<td>3</td>
</tr>
<tr>
<td>Education Graduate Core courses</td>
<td>6</td>
</tr>
<tr>
<td>ART 591 Project or ART 593 Thesis</td>
<td>6</td>
</tr>
<tr>
<td>Electives</td>
<td>15</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>33</strong></td>
</tr>
</tbody>
</table>

Course Offerings

ART

ART 501 THE FINE ARTS: ANALYSIS AND APPRECIATION IN THE EDUCATIONAL PROGRAM (3-0-3)(S)(Alternate years). Emphasis will be placed on learning about and applying the psychological and aesthetic theories commonly used in the creation, appreciation, and response to the fine arts in American educational settings. Course activities include attending a variety of arts presentations. Students will develop a researched, written unit of arts curriculum appropriate for educational use. PREREQ: Graduate status or PERM/INST.

ART 521 TEACHING THROUGH EXPERIMENTAL ART MEDIA (0-6-3) (Su). Varied and unique experimental art processes and media to be used in conjunction with creative teaching techniques that emphasize critical thinking skills and the development of new or enriched art(s) curricula for K-12. Students will solve procedural problems and adapt art media to teaching experiences. Outside reading and creative exploration will be expected, as well as a final presentation including a written paper. PREREQ: Graduate standing.

ART 533 CONTEMPORARY IDEAS IN ART METALS (0-6-3)(F/S). Advanced exploration of design issues and techniques related to conceptual problems. Content varies by term with a focus on individual processes or topics. Repeatable for credit. PREREQ: ART 221 and ART 222 or PERM/INST.

ART 535 STUDIO IN ART METALS (0-6-3)(F/S). Individual problems in Art Metals. Content varies by term with a focus on individual processes or topics. Repeatable for credit. PREREQ: 9 credits of ART 307 and/or ART 533 or PERM/INST.

ART 551 CURRICULUM DEVELOPMENT AND ASSESSMENT IN ART EDUCATION (3-0-3)(F)(Alternate years). Designed for those teaching or planning to teach art at any level, this course includes the history and rationale of American arts curricula K-12, the development of a selected, viable curriculum in a specific area, and the use of curriculum planning techniques appropriate in current educational settings. PREREQ: Graduate status or PERM/INST.

ART 575 GRADUATE SEMINAR (3-0-3)(F/S). Group meetings for the critical examination of works, practices, and issues within contemporary discourse and visual culture. PREREQ: Graduate standing.

ART 576 STUDIO PRACTICES (0-1-3)(F/S). Independent work in the studio under the guidance of the student’s graduate committee members. Periodic critiques of the work are conducted by the graduate committee and by the full graduate faculty. May be repeated for credit.
ART 577 GRADUATE CONCOURSE (3-0-3)(F/S). Through a variety of seminar meetings, critiques, studio and community-based activities, students will locate their art practices within the contexts of contemporary art and theory, articulate the strategies unique to their work and explore their roles as artists in society. May be repeated for credit.

ART 578-589 SELECTED TOPICS (V-0-V). Media specific studio courses taught by the graduate faculty. Students will have an opportunity to have their art work analyzed and critiqued by practicing fine art professionals. PREREQ: The following courses are reserved for matriculated graduate MA and MFA art students. Exceptions may be allowed by special permission of the course instructor and the director of the program.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 578</td>
<td>SELECTED TOPICS — ART EDUCATION</td>
</tr>
<tr>
<td>ART 579</td>
<td>SELECTED TOPICS — COMPUTER GRAPHICS</td>
</tr>
<tr>
<td>ART 580</td>
<td>SELECTED TOPICS — DRAWING</td>
</tr>
<tr>
<td>ART 581</td>
<td>SELECTED TOPICS — PAINTING</td>
</tr>
<tr>
<td>ART 582</td>
<td>SELECTED TOPICS — ART METALS</td>
</tr>
<tr>
<td>ART 583</td>
<td>SELECTED TOPICS — SCULPTURE</td>
</tr>
<tr>
<td>ART 584</td>
<td>SELECTED TOPICS — PHOTOGRAPHY</td>
</tr>
<tr>
<td>ART 585</td>
<td>SELECTED TOPICS — CERAMICS</td>
</tr>
<tr>
<td>ART 586</td>
<td>SELECTED TOPICS — PRINTMAKING</td>
</tr>
<tr>
<td>ART 587</td>
<td>SELECTED TOPICS — GRAPHIC DESIGN</td>
</tr>
<tr>
<td>ART 588</td>
<td>SELECTED TOPICS — ILLUSTRATION</td>
</tr>
<tr>
<td>ART 589</td>
<td>SELECTED TOPICS — ART HISTORY</td>
</tr>
<tr>
<td>ART 590</td>
<td>PRACTICUM/INTERNSHIP (3-0-3)</td>
</tr>
<tr>
<td>ART 591</td>
<td>PROJECT (6 credits)</td>
</tr>
<tr>
<td>ART 594</td>
<td>WORKSHOP (1-3 credits)</td>
</tr>
<tr>
<td>ART 595</td>
<td>READING AND CONFERENCE (1-2 credits)</td>
</tr>
<tr>
<td>ART 596</td>
<td>INDEPENDENT STUDY (1-2 credits)</td>
</tr>
<tr>
<td>ART 597</td>
<td>SPECIAL TOPICS</td>
</tr>
</tbody>
</table>

College of Arts and Sciences
Department of Biological Sciences

Department of Biological Sciences
Chair: James Belthoff
Science/Nursing Building, Room 100, Mail Stop 1515
Telephone (208) 426-3262
FAX (208) 426-1040
www.boisestate.edu/biology/


Adjunct Graduate Faculty: Christopher Ball, Jonathan Bart, Keith Bildstein, Kenneth Brewer, Jay Carlisle, Matthew Dare, Gary Daughdrill, Susan Earnst, David Eldridge, Richard Fischer, Eric Forsman, Mark Fuller, Cynthia Keller-Peck, Lloyd Kiff, Cecilia Kinter, Steven Knick, Michael Kochert, Daniel Leavell, Matthias Leu, John Lloyd, Richard Mack, Carl Marti, Jr., Bill Mattox, Richard Olson, David Pilliod, Rebecca Pullen, Roger Rosentreter, Randall Ryan, Rex Sallabanks, Lucinda Salo, Nancy Shaw, Karen Steenhof, Dennis Stevens, Ronald Strohmeyer, David Tank, Richard Watson, David Whitacre, Eric Yensen

Graduate Degrees Offered
• Master of Arts in Biology
• Master of Science in Biology
• Master of Science in Raptor Biology

General Information
Professional biologists, teachers in public and private schools, and others can use these programs to increase their knowledge base and to advance professionally.

Application and Admission Requirements
Applications are due January 15 for fall admission and October 1 for spring admission. For additional information concerning the department, faculty, and potential projects, visit the departmental web site (www.boisestate.edu/biology). To apply:

1. Send the following to: Graduate Admissions and Degree Services, Boise State University, 190 University Drive, Boise, ID 83725-1110.
   - A graduate application along with the $55 application fee. Please submit the application prior to submitting any additional items. Apply online at www.boisestate.edu/gradcoll.
   - Have the Registrar(s) of ALL post-secondary institutions attended send official transcripts to the Graduate Admissions Office. Have Graduate Record Exam (GRE) scores forwarded to the Graduate Admissions Office.
2. Send the following to: Graduate Program Coordinator, Department of Biological Sciences, Boise State University, Boise, ID 83725-1515.
   • A cover letter discussing professional goals and reasons for wishing to study biology or raptor biology at Boise State University. MS applicants should also discuss research interests, especially as they mesh with those of faculty members. MA applicants should also discuss what goals they wish to achieve by enrolling, specifically discussing project interests and desired areas of emphasis for course work. Also note any communication you have had with faculty members.
   • Three letters of recommendation. These should be from faculty, supervisors, or others that can describe the applicant’s qualifications and promise relative to graduate studies and independent research.

Individuals admitted to Regular Status as graduate students in biology or raptor biology typically have:
   • an undergraduate GPA of at least 3.00 on a 4-point system;
   • results that average in the 50th or higher percentile in the verbal, quantitative, and analytical writing portions of the GRE exam;
   • an undergraduate degree in biology or a closely related field.

Provisional Status may be granted to those otherwise promising applicants who do not meet GPA or GRE requirements or who have undergraduate course work deficiencies.

Initial evaluation of applicants will be undertaken by the Biological Sciences Department Graduate Studies Committee; final decisions on admission will depend on qualifications of the candidates and openings that exist within the Biology and Raptor Biology graduate programs.

Each student who has been admitted into our programs will form an advisory committee, which will consist of at least three members: the student’s major professor and two other members. The committee will determine if academic deficiencies exist that must be remedied, help design thesis/project research, help guide appropriate graduate course work, evaluate the thesis/project, and conduct the final defense or comprehensive examination.

The Graduate Studies Committee will, in cooperation with the student’s major professor and advisory committee, assess performance and progress in thesis/project research, course work and teaching assistant duties (where applicable). Continuing enrollment in the program requires a 3.0 GPA and satisfactory progress toward completing the degree.

Financial Aid
Teaching Assistantships that include a stipend, a tuition and fee waiver, and student health insurance may be available to M.S. students on a competitive basis. Additional support for master’s research projects may be available from faculty members in the form of research assistantships. Other forms of financial aid, such as loans or the College Work Study Program, are available to graduate students. Prospective students should contact the Financial Aid Office and consult the Boise State University catalog.

Degree Requirements
The M.S. is a research-based degree. The M.S. candidate will complete a thesis based on original research carried out by the student. Ideally, the thesis should make a significant contribution to the body of scientific knowledge and be of sufficient quality to warrant publication in a peer-reviewed journal.

M.S. students are expected to produce a written thesis proposal and give an oral presentation of that proposal during their first year and, following completion of the thesis, give an oral defense of the thesis, and an exit seminar to present the results to the public.

The M.A., Project Option is an application-based degree and is considered to be a terminal degree (except for students intending to attend professional school); students wishing to later pursue a Ph.D. should enroll in the M.S. program. In addition to completing substantial course work, the M.A. candidate will complete a project that may be an application or synthesis of original research carried out by others. Examples of such projects include development of biology-based curricula, compilation and analysis of studies on a range of species, review and the synthesis of a body of ideas or data, and development of a resource management plan based on relevant studies. Upon completion of the project the candidate will meet with the committee for an oral review and discussion about the project.

The M.A., Examination Option is a course work-based degree and is considered to be a terminal degree (except for students intending to attend professional school); students wishing to later pursue a Ph.D. should enroll in the M.S. program. The M.A. candidate will complete a wide range of relevant course work. At the end of course work, the candidate will be required to pass a comprehensive examination. The examination will be tailored by each candidate’s committee to emphasize the areas covered by course work. After the candidate has completed the written portion of the examination, the candidate will meet with the committee for an oral review prior to final approval or rejection of the written examination.

Completion of each degree program requires an average grade of B or better for all courses applied to the 30-33 credits required. All requirements for the degree and graduation must be completed within a period of seven years.
### Master of Arts in Biology, Project Option

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 598 Graduate Seminar OR</td>
<td>2</td>
</tr>
<tr>
<td>BIOL 561-567 “Advanced Topics in” courses</td>
<td></td>
</tr>
<tr>
<td>BIOL 579 Research in the Biological Sciences</td>
<td>2</td>
</tr>
<tr>
<td>(for two semesters)</td>
<td></td>
</tr>
<tr>
<td>BIOL 591 Project</td>
<td>6</td>
</tr>
<tr>
<td>Students will be expected to develop a written project proposal and give an oral presentation of their project upon completion.</td>
<td></td>
</tr>
<tr>
<td>Electives to be chosen in consultation with advisor and committee: Electives for the M.A. may include up to a combined total of 6 credits of workshop credits, practicum/internship credits, directed research credits. A combined total of 9 credits may include approved courses taken outside the biological sciences, workshops, practicum/internship, and directed research. Workshop, directed research, and practicum/internship credits are limited to a maximum of 3 credits each.</td>
<td>23</td>
</tr>
</tbody>
</table>

**TOTAL** 33

### Master of Arts in Biology, Examination Option

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL 598 Graduate Seminar OR</td>
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<td>28</td>
</tr>
<tr>
<td>BIOL 600 Assessment <a href="P/F">Comprehensive Examination</a></td>
<td>1</td>
</tr>
</tbody>
</table>

**TOTAL** 33
Course Offerings

Additional work will be required to receive graduate credit for undergraduate G courses.

BIOl. 344G MOLECULAR AND CELL BIOLOGY LABORATORY (0-8-3) (F), Modern molecular and cellular techniques including cloning, computer analysis of DNA sequences, karyotyping, DNA amplification, and use of Southern and Western blots for transgene detection and expression analysis. Some laboratory time will be arranged. PRE/Coreq: BIOL 343 and PERM/INST.

BIOl. 500 ORGANIC EVOLUTION (3-0-3)(S), Philosophical basis of evolutionary theory. Detailed examination of genetic variation, mechanisms of adaptation, and the role of natural selection. Emphasis on the theory of evolution and the role of natural selection. PRE/Req: BIOL 323 and BIOL 343 or PERM/INST.


BIOl. 510 PATHOGENIC BACTERIOLOGY (2-6-3)(S), Medically important bacteria, rickettsia, and chlamydia are surveyed with emphasis on their pathogenicity, host-parasite relationships, and the clinical and diagnostic aspects of the diseases they produce in humans and animals. PREREQ: BIOL 301 and BIOL 303.

BIOl. 512 GENERAL PARASITOLOGY (2-3-3)(Intermittently). Study of animal parasites with emphasis on those of man and his domestic animals. Lectures cover general biology, life history, structure, function, distribution, and significance of parasites. Laboratory provides experience in identification and detection. PREREQ: BIOL 301 or PERM/INST.

BIOl. 515 APPLIED AND ENVIRONMENTAL MICROBIOLOGY (3-3-4)(S), Microbial populations and processes in soil and water. Water- and food-borne pathogens. Microbial and biochemical methods of environmental assessment. PREREQ: BIOL 303, and CHEM 301-302 or CHEM 307-308, or PERM/INST.

BIOl. 520 IMMUNOLOGY (3-0-3)(S), Principles of immunology, host defense mechanisms, the immune response, immune disorders, serology, and related topics. PREREQ: BIOL 301.

BIOl. 522 CONSERVATION BIOLOGY (3-0-3)(S)(Odd years). An introduction to the field of conservation biology, the applied science concerned with understanding the effects of human activities on natural biological systems and with developing practical approaches to prevent the loss of biodiversity. Topics covered will include conservation genetics, demographic analysis, habitat degradation, overexploitation, and restoration ecology. Discussion of the social, political, and economic aspects of conservation biology. PREREQ: BIOL 323.

BIOl. 525 BASIC AND APPLIED DATA ANALYSIS IN BIOLOGY (2-0-2)(F/S), Univariate statistics using computer software (JMP, SAS Institute, Inc.) with applications to biology, natural resources, health care, education, industry, and other professional disciplines. PREREQ: BIOL 323, BIOL 601, or PERM/INST.

BIOl. 526 INSECT ECOLOGY (3-0-3)(S)(Even years). An in-depth exploration of insect ecology, evolution and behavior. Topics include life history evolution, insect-plant interactions, predation and parasitism, reproduction, insect societies, chemical ecology, biodiversity and pest management. PREREQ: BIOL 323 or PERM/INST.

BIOl. 527 STREAM ECOLOGY (3-3-4)(F)(Odd years). The biology and ecology of flowing waters is emphasized; their biota, management, and ecology at both the community and ecosystem level will be discussed. PREREQ: BIOL 323 or PERM/INST.

BIOl. 531 PHARMACOLOGY (3-0-3)(F), Basic pharmacological principles including mechanisms of drug action in relation both to drug-receptor interactions and to the operation of physiological and biochemical systems. Pharmacokinetics, metabolism, receptor theory and an examination of major classes of therapeutic agents used in humans. PREREQ: BIOL 227-228 or BIOL 191-192, and BIOL 301.

BIOl. 533 BEHAVIORAL ECOLOGY (3-0-3)(Odd years). This course focuses on the evolutionary significance of animal behavior in relation to the ecology of the organisms. Using theoretical background and recent empirical evidence, mating systems, foraging, parental care, selfishness and altruism, competition, territoriality, and other behavioral patterns will be assessed in relation to the survival and reproduction of animals. PREREQ: BIOL 323 or PERM/INST.

BIOl. 534 PRINCIPLES OF FISHERIES AND WILDLIFE MANAGEMENT (3-0-3)(S), Integrative approach to managing game and non-game populations and habitat. Tools to determine population status, strategies to increase or decrease populations, and the implementing of monitoring programs. Current quantitative approaches within context of the ecosystem-based view of wildlife and habitat management. PREREQ: BIOL 323 or PERM/INST.

BIOl. 540 GENERAL AND MOLECULAR TOXICOLOGY (3-0-3)(F/S). General and molecular principles of mammalian toxicology including toxicant disposition, mechanisms of toxicity, target organ toxicity, and major classes of toxic agents. PREREQ: BIOL 301 or PERM/INST.

BIOl. 541 MOLECULAR BIOLOGY OF CANCER (3-0-3)(S), A treatment of the basic biology of cancer and the process of tumor progression. Topics examined will include oncogenes, tumor suppressor genes, and the causes of cancer. PREREQ: BIOL 301, BIOL 343.

BIOl. 542 MOLECULAR NEUROBIOLOGY (3-0-3)(F). Emphasis will be on the molecular aspects of neurobiology. Topics will include: cells of the nervous system, neurochemical transmission, nerve terminals, membrane structure and function, electrical signaling, neural development, process outgrowth and myelination and glia, and specific neural diseases including Alzheimer’s disease, Parkinson’s disease, and Lou Gehrig’s disease. PREREQ: BIOL 301 and PHYS 112, or PERM/INST.

BIOl. 543 ADVANCED DEVELOPMENTAL BIOLOGY (1-6-2)(F)(Odd years). Application of molecular and cellular methods to current topics in developmental biology. Analysis of current literature in biology with emphasis on the coordinated regulation of gene expression, cellular differentiation and migration. Laboratory studies include model systems such as chick, zebrafish, sea urchin and mouse, utilizing cell/tissue culture, histology, immunohistochemistry, RT-PCR, protein purification, SDS-PAGE, western blot and others. Previous enrollment in BIOL 344 and ZOOL 351 recommended.

BIOl. 544 VACCINOLOGY (3-0-3)(S). Discussion of the history, safety, epidemiology, molecular biology and immunology of vaccines. Development of the next generation of vaccines to combat infectious disease of global importance, such as HIV, malaria and tuberculosis, also will be discussed. PREREQ: BIOL 301 or PERM/INST.

BIOl. 545 HUMAN GENETICS (3-0-3)(S)(Intermittently). Discussion of important aspects of human heredity. Topics include the reproductive system, single gene disorders, chromosome abnormalities, hemoglobinopathies, inborn errors of metabolism, somatic cell and molecular genetics, immunogenetics, gene screening, and human variation and evolution. PREREQ: BIOL 343 or PERM/INST.

BIOl. 546 BIOINFORMATICS (2-3-3)(F). Practical training in bioinformatics methods: accessing sequence data bases, BLAST tools, analysis of nucleic acid and protein sequences, detection of motifs and domains of proteins, phylogenetic analysis, gene arrays, and gene mapping. PREREQ: BIOL 343 or PERM/INST.

BIOl. 547 FORENSIC BIOLOGY (3-0-3)(F). Analysis and interpretation of biological evidence in forensic contexts. Topics include entomology, botany, fingerprints, toxicology, DNA, pathology, anthropology and odontology. PREREQ: BIOL 343.
BIOL 548 PERL FOR BIOINFORMATICS APPLICATIONS (3-0-3)(F/S).
The PERL programming language is used to introduce skills and concepts to process and interpret data from high-throughput technologies in the biological sciences. Key bioinformatics concepts are reinforced through lectures, computer demonstrations, weekly readings, and programming exercises from biological sequence analysis and real-world problems in proteomics and genomics. PREREQ: BIOL 446 or PERM/INST.

BIOL 549 GENOMICS (3-0-3)(F/S). A fusion of biology, computer science, and mathematics to answer biological questions. Topics include analyzing eukaryotic, bacterial, and viral genes and genomes; locating genes in genomes and identifying their biological functions; predicting regulatory sites; assessing gene and genome evolution; and analyzing gene expression data. PREREQ: BIOL 343 and MATH 254, or PERM/INST.

BIOL 551 DEVELOPMENTAL BIOLOGY (2-6-4)(S)(Odd years). Germ cell development, comparative patterns of cleavage and gastrulation, neural induction, and development of human organ systems with emphasis on molecular and cellular mechanisms. Laboratory studies of sea urchin, frog, chick, and pig development. PREREQ: BIOL 191-192 or PERM/INST.

BIOL 561 ADVANCED TOPICS IN AQUATIC BIOLOGY (1-0-1)(F/S). An exploration of the current primary literature of aquatic biology. Topics vary, and may include community dynamics of algae, fish, zooplankton, and benthic invertebrates; trophic relationships; stream and reservoir management; primary and secondary production; organic matter and nutrient dynamics; and wetland ecology. May be repeated once for credit. PREREQ: BIOL 323 and PERM/INST.

BIOL 562 ADVANCED TOPICS IN ANIMAL BEHAVIOR (1-0-1)(F/S). Exploration of current animal behavior and behavioral ecology literature through group discussion and presentations. May be repeated once for credit. PREREQ: BIOL 433 or 533 or ZOOL 434 or 534 and PERM/INST.

BIOL 563 ADVANCED TOPICS IN GENETIC ANALYSIS (1-0-1)(S). Presentation and discussion of topics such as human chromosome evolution, forensic DNA analysis, artificial evolution, mutation and disease, genetic patents, and drug target development. May be repeated once for credit. PREREQ: BIOL 343 and PERM/INST.

BIOL 564 ADVANCED TOPICS IN MOLECULAR ECOLOGY, EVOLUTION, AND PHYLOGEOGRAPHY (1-0-1)(F/S). Presentations and group discussion of molecular aspects of ecology, evolution, and phylogeography. May be repeated once for credit. PREREQ: BIOL 401 or PERM/INST.

BIOL 565 ADVANCED TOPICS IN MOLECULAR BIOLOGY TECHNIQUES (1-0-1)(F). Discussion of scientific literature with emphasis on modern molecular biology techniques. Students lead discussions and present articles from relevant primary literature. May be repeated once for credit. PREREQ: BIOL 343 and PERM/INST.

BIOL 566 ADVANCED TOPICS IN MOLECULAR, CELLULAR, AND DEVELOPMENTAL BIOLOGY (1-0-1)(S). Discussion of current research. Students lead discussions and present articles, as well as monitor recent relevant primary literature. Previous enrollment in BIOL 465 or BIOL 565 recommended. May be repeated once for credit. PREREQ: BIOL 343 and PERM/INST.

BIOL 567 ADVANCED TOPICS IN EXTRACELLULAR MATRIX IN DEVELOPMENT AND DISEASE (1-0-1)(F/S). Review, presentation, and discussion of current literature. Students present original research in context of current literature, including statement of hypothesis, review of literature, analysis, and discussion of original data, in written and oral presentation format. May be repeated once for credit. PREREQ: PERM/INST.

BIOL 577 (ME 577)(MSE 577) BIOMATERIALS (3-0-3)(F/S). Theory of biomaterials science. Medical and biological materials and their applications. Selection, properties, characterization, design and testing of materials used by or in living systems. PREREQ: CHEM 112 or ENGR 245.

BIOL 579 RESEARCH IN BIOLOGICAL SCIENCES (1-0-1)(F/S). Seminars by biologists on a wide range of subjects. Students will attend seminars, write summaries, and search for relevant literature. May be repeated once for credit. (Pass/Fail.)

BIOL 601 BIOMETRY (4-0-4)(F). An application of statistical methods to problems in the biological sciences. Basic concepts of hypothesis testing; estimation and confidence intervals; tests and chi-square tests. Linear and nonlinear regression theory and analysis of variance. Techniques in multivariate and nonparametric statistics. PREREQ: MATH 147, or PERM/INST.

BIOL 602 POPULATION AND COMMUNITY ECOLOGY (3-0-3)(F). The structure of populations and communities. Competition, predation, life history strategies, demography, population regulation, and species diversity are examined from experimental and theoretical perspectives. PREREQ: BIOL 323 or equivalent, or PERM/INST.

BIOL 603 ADVANCED BIOMETRY (3-3-3)(S)(Even years). A survey of experimental design and selected multivariate techniques. The course is designed to assist students in selecting proper statistical techniques for gathering and analyzing biological data, and correctly interpreting the statistical analysis of their data. Prior experience with Statistical Analysis System (SAS) is helpful. PREREQ: BIOL 601 or PERM/INST.

BIOL 604 TEACHING ASSISTANT SKILLS AND ISSUES (2-0-2). Discussion of learning styles, testing strategies, disability issues, and other topics relevant to being a teaching assistant for undergraduate biology laboratories. (Pass/Fail). PREREQ: PERM/INST.

BIOL 605 APPLIED RAPTOR BIOLOGY (0-3-2)(F)(Odd years). A study of the techniques appropriate to the study of the ecology, behavior, and physiology of raptors and other birds. Field trips will be taken in addition to regularly scheduled class. PREREQ: Graduate standing in Biology or Raptor Biology or PERM/INST.

BIOL 606 RAPTOR ECOLOGY (3-0-3)(S). Theoretical ecology as applied to birds of prey. Strategies of reproduction, habitat selection, foraging and spacing; theory of competition and predator-prey interactions; niche theory and community structure; raptor management. PREREQ: BIOL 323, or PERM/INST.

BIOL 617 SPECIES AND SPECIATION (3-0-3)(F)(Odd years). Species definitions are fundamental for all investigations in the biological sciences. This course will investigate the numerous species concepts proposed over the last 100 years with an emphasis on primary literature. Concepts to be discussed will include biological, phylogenetic, genealogical, and evolutionary species concepts. The second part of the course will emphasize the processes involved in speciation, looking at both micro- and macroevolutionary events. PREREQ: BIOL 400 or BIOL 500 or PERM/INST.

BIOL 628 GEOGRAPHIC INFORMATION SYSTEMS IN BIOLOGY (3-0-3)(S). Discussion of the use of Geographic Information Systems to apply spatial data to ecological problems. Analysis of the ways that spatial relations affect patterns, processes, and decision making at multiple scales. Specific topics covered include GAP analysis, habitat modeling, spatially-explicit population modeling, landscape ecology, home range analysis, interpretation of satellite imagery, and natural resource issues. PREREQ: Graduate standing or PERM/INST.

BIOL 629 MODERN METHODS IN ECOLOGY AND BEHAVIOR (2-3-3)(S)(Odd years). Instruction in the theory, practice, and analysis of modern methods used in ecological and evolutionary studies will be provided. Methods to be covered include: cytology; isozyme electrophoresis; DNA restriction site analysis, DNA sequencing, and RAPD analysis. PREREQ: PERM/INST.

BIOL 650 WRITING FOR BIOMEDICAL SCIENCES (1-0-1)(F)/S. This writing course is designed for graduate students in biomedical science disciplines who are ready to begin, or who are currently working on, a manuscript. Examination of principles and practice of writing research manuscripts, articles, abstracts, and oral presentations will be included. Detailed examination of scientific publication process includes issues of style, organization, and ethics. Students draft, critique, and revise their own manuscripts and learn to review the manuscripts of others. PREREQ: PERM/INST.
BOT—BOTANY

BOT 302G PLANT ANATOMY AND MICROTECHNIQUE (3-3-4)(S)(Odd years). A study of the structure and development of vascular plant tissues, regions, and organs. Emphasis will be placed on the Angiosperms. Laboratory work includes preparation of hand and paraffin sections, staining, and observation of plant tissues using various types of light microscopy. PREREQ: BIOL 191-192.

BOT 305G SYSTEMATIC BOTANY (2-6-4)(S). Fundamental problems of taxonomy. Discussion of historical development of classification systems and comparison of recent systems. Instruction on use of keys and manuals. PREREQ: BIOL 191-192 or PERM/INST.

BOT 311G PLANT DIVERSITY AND EVOLUTION (3-3-4)(S)(Even years). A comparative study of the structure, function, reproduction, and development of major plant groups. Phylogeny, paleobotany, and economic importance of various plant groups will be considered. PREREQ: BIOL 191-192 or PERM/INST.

BOT 330G MYCOLOGY (3-3-4)(F). A study of the biology of fungi with emphasis on their classification, morphology and development, identification, ecology, and economic significance. Laboratory work will include projects and field trips. PREREQ: BIOL 191-192 or PERM/INST.

BOT 501 PLANT PHYSIOLOGY (3-3-4)(F)(Odd years). A study of plant biophysical and biochemical processes. Includes coverage of cell, tissue, and organ function, photosynthesis, water relations, mineral nutrition, transport mechanisms, growth and development, secondary metabolites, and plant responses to the environment. PREREQ: BIOL 191-192 and BIOL 301.

BOT 524 PLANT COMMUNITY ECOLOGY (3-6-5)(F)(Even years). Properties, structure, method of analysis, classification, and dynamic nature of plant communities. Strengths and weaknesses of various sampling techniques, role of disturbance events and succession on community structure, and role of biological interaction as factors influencing assembly of communities. Vegetation sampling methods and habitat type classification of local plant communities. Methods of analyzing and reporting data. BOT 305 highly recommended. PREREQ: BIOL 323 and PERM/INST.

BOT 541 PLANT DEVELOPMENTAL BIOLOGY (3-3-4)(S)(Even years). A description of plant development from a molecular and cellular perspective. Topics discussed include gene expression and cell signaling pathways, and their roles in the control of embryogenesis, plant growth, flowering, and fruit maturation. Examination of techniques and model systems used in the study of plant development. Each student will complete a project. PREREQ: BIOL 301.

ZOOLO—ZOOLOGY

ZOOLO 301G COMPARATIVE VERTEBRATE ANATOMY (2-6-4)(F). The evolutionary development of vertebrate anatomy, fishes through mammals. Dissection of the shark, salamander, and cat plus demonstrations of other vertebrate types. PREREQ: BIOL 191-192 or PERM/INST.

ZOOLO 305G ENTOMOLOGY (2-6-4)(F). The general anatomy, physiology and developmental biology of insects, and ecological and evolutionary relationships and interactions of insects with humans. Field trips to collect and identify local species. PREREQ: BIOL 191-192 or PERM/INST.

ZOOLO 341G ORNITHOLOGY (2-3-3)(S)(Odd years). Birds as examples of biological principles: classification, identification, ecology, behavior, life histories, distribution, and adaptations of birds. Two weekend field trips. PREREQ: BIOL 191-192 and PERM/INST.

ZOOLO 500 VERTEBRATE HISTOLOGY (2-6-4)(S)(Even years). Microscopic anatomy of cells, tissues, and organ systems of vertebrates. Major emphasis will be on mammalian systems. PREREQ: BIOL 301 or ZOOL 301.

ZOOLO 501 HUMAN PHYSIOLOGY (3-3-4)(S). Functional aspects of human tissues and organ systems with emphasis on regulatory and homeostatic mechanisms. PREREQ: BIOL 301 or PERM/INST.

ZOOLO 503 (KINES 503) HEAD AND NECK ANATOMY (2-2-3)(F,S). Use of human cadavers to study projections of head and neck with emphasis on clinical relevance. Integument, osteology, myology, and lymphatic systems, oral and dental tissues, neuroanatomy, cranial nerves, general innervation, and salivary glands. May be taken for KINES or ZOOL credit but not both. PREREQ: BIOL 191-192 or BIOL 227-228 or PERM/INST.

ZOOLO 509 GENERAL AND COMPARATIVE PHYSIOLOGY (3-3-4)(S). Physiological principles common to all forms of animal life are discussed. Physiological adaptations required to live in a variety of environments are presented. PREREQ: ZOOL 230, CHEM 317 or PERM/INST.


ZOOLO 534 ANIMAL BEHAVIOR (3-3-4)(F)(Even years). This course focuses on the concepts and processes of animal behavior, with particular emphasis on proximate perspectives. The history of the study of animal behavior, behavioral genetics, the nervous system and behavior, hormones and behavior, ontogeny of behavior, learning and motivation, and other aspects of behavior such as migration, orientation, and navigation will be presented. PREREQ: BIOL 323 or PERM/INST.

ZOOLO 615 AVIAN PHYSIOLOGY (3-4-3)(F)(Odd years). The physiology of flight, cardiovascular, pulmonary, digestive, water and electrolyte, egg, and reproductive physiology are covered. Correlations between unique aspects of avian structure and function are emphasized. PREREQ: Graduate standing or PERM/INST.

ZOOLO 635 BEHAVIORAL ENDOCRINOLOGY (3-3-3)(F)(Even years). An examination of the endocrine system and the hormonal mechanisms associated with social behavior and aggression, reproductive and parental behavior, biological rhythms, etc. Each student is expected to investigate and lead a discussion on an assigned topic. PREREQ: Graduate Standing or PERM/INST.

SPECIAL TOPICS. Courses are offered in response to student interest and are in addition to formal courses listed above.
Department of English

Department Chair: Michelle Payne
Associate Chair: Dora Ramirez-Dhoore
Liberal Arts Building, Room 228, Mail Stop 1525
Telephone (208) 426-3426
FAX (208) 426-4373
http://english.boisestate.edu/

Graduate Faculty: Bruce Ballenger, John Battalio, Ann Campbell, Devan Cook, Martin Corless-Smith, Jon P. Dayley, Heidi Estrem, James E. Fredrickson, Matthew C. Hansen, Thomas Hilliard, Cheryl Hindrichs, Janet Holmes, Daryl Jones, Mike Markel, Carol A. Martin, Roger Munger, Jacqueline O’Connor, Dora Ramirez-Dhoore, Steven Olsen-Smith, Michelle Payne, Tom Peele, Tara Penry, Bruce Robbins, Rena Sanderson, Gail Shuck, Edward Test, Tom Trusky, Brady Udall, Karen Uehling, Jeffrey Westover, Mitchell Wierland, Jeffrey Wilhelm, Russell Willerton, Linda Marie Zaerr

Adjunct Graduate Faculty: Jodi Chilson, Yvonne Georgeson, Al Greenberg, Al Heathcock, John Keeble, Kevin Wilson

Graduate Degrees Offered

- Master of Fine Arts in Creative Writing
- Master of Arts in English, Literature
- Master of Arts in English, Rhetoric and Composition
- Master of Arts in Teaching English Language Arts
- Master of Arts in Technical Communication
- Graduate Certificate in Technical Communication

Master of Fine Arts in Creative Writing

Director of Creative Writing: Martin Corless-Smith

General Information

The program offers maximum flexibility for writers seeking a place to focus on their craft. Students pursuing the degree specialize in either fiction, poetry, or creative nonfiction and work closely with the creative writing faculty in workshop and conference settings.

The M.F.A. in Creative Writing from Boise State University represents a student’s mastery of one of the genres of creative writing, as well as a thorough grounding in traditional and contemporary letters. Students work with a faculty of accomplished writers and produce a manuscript of publishable quality during their course of study. While the M.F.A. is the preferred degree for teachers of creative writing, the program at Boise State University also prepares students with courses offered in professional editing and publishing (practicum classes with Ahsahta Press and The Idaho Review), form and theory, and book arts, as well as with invaluable teaching experience in the creative writing classroom.

The Idaho Review, published by the M.F.A. program, offers a chance for students to work on a national literary journal, either as graduate assistants or through course credit or internship. A second literary publication, cold drill, is run entirely by M.F.A. students, and offers extensive experience in designing, managing, and editing a literary magazine. Students can also gain editing experience working for Ahsahta Press, a nationally recognized publisher of poetry.

Established in 1974, Ahsahta Press publishes up to three volumes each academic year. The book arts program offers additional opportunities in design and publishing.

The Hemingway Center, administered by the Department of English, is another resource to be found on campus. It is the home of the Idaho Center for the Book, affiliated with the Library of Congress. The Center also oversees the Idaho Writers’ Archive.

The Department of English offers a number of Graduate Teaching Assistantships. These assistantships include waivers of tuition and fees, resident or non-resident, and a stipend of over $9,600. Complete applications are due January 15 for priority consideration. More information is available from the Director of Creative Writing.

Application and Admission Requirements

To be considered for regular status as a graduate student in the Department of English M.F.A. in Creative Writing, an applicant must meet general Graduate College requirements (which includes requesting that official transcripts from all institutions previously attended be sent to the Graduate Admissions Office, MS-1110, Boise State University, Boise, Idaho 83725) and the following department requirements:

1. A writing sample consisting of thirty manuscript pages of fiction or nonfiction or fifteen poems, sent directly to the Director of Creative Writing.
2. A Bachelor of Arts or Bachelor of Science degree.
3. Three letters of recommendation from people who know the applicant’s academic work, sent directly to the Director of Creative Writing.
4. A GPA of at least 3.0 for the last sixty semester credit hours of undergraduate work.
5. Applicants who do not satisfy one or more of these requirements by the time they wish to begin classes may be admitted with provisional status. They will be advised as to what steps they need to take to qualify for regular status. For more in-depth information, please visit our web site.

Degree Requirements

The 48-credit Master of Fine Arts in Creative Writing degree offers a combination of creative writing, form and theory, professional editing, book arts, composition and rhetoric, linguistics, literature, and technical communication courses.

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<tr>
<th>Master of Fine Arts in Creative Writing</th>
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<tbody>
<tr>
<td>Course Number and Title</td>
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<tr>
<td>Workshops:</td>
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<tr>
<td>ENGL 522 Poetry Writing Workshop</td>
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<tr>
<td>ENGL 523 Fiction Writing Workshop</td>
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<tr>
<td>ENGL 524 Creative Nonfiction Writing Workshop</td>
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<tr>
<td>Students are admitted into the program in one genre of concentration. Four workshops must be taken in this declared genre.</td>
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— continued —
The Department of English provides excellent computer labs, including three administered by the Department itself, for word processing, desktop publishing, and network access to online resources and information about library holdings in the United States and abroad.

The Hemingway Center, administered by the Department of English, is another campus resource. It is the home of the Idaho Center for the Book, affiliated with the Library of Congress. The Center also oversees the Idaho Writers’ Archive.

The Department of English offers Graduate Assistantships in Teaching and in the Writing Center. These assistantships offer a waiver of tuition and fees, including out-of-state tuition, and in addition carry a stipend of over $10,400. Complete applications for assistantships are due January 15. In order to be considered for an assistantship, applicants must also submit all materials required for admission to the M.A. in English program by that date. Applicants should plan to apply to the program, have all undergraduate transcripts sent, arrange for letters of recommendation, and take the Graduate Record Exam well before this deadline. A list of program requirements is below. Information on assistantship applications can be obtained from the website or by e-mailing the director of the program.

Students who do not wish to enroll in a degree program but would like to take a course of interest should consult with the Director of the M.A. in English about whether the prerequisite of program admission can be waived.

**Application and Admission Requirements**

To be considered for regular status as a graduate student in the Department of English, an applicant must meet general Graduate College requirements (which include requesting that official transcripts from all institutions previously attended be sent to the Graduate Admissions Office, MS-110, Boise State University, Boise, Idaho 83725) and the following department requirements:

1. A Bachelor of Arts in English. In lieu of this, an applicant must demonstrate a strong background in an area of study available in the graduate curriculum of the Department of English to be considered for admission into the program.
2. A GPA of at least 3.0 for the last sixty semester credit hours of undergraduate work.
3. Scores for the Graduate Record Examination (GRE), sent to the Graduate Admissions Office. The applicant must score at least 500 on the Verbal Section of the GRE. Scores on sections other than the Verbal Section are for information purposes only.
4. An essay of from five hundred to seven hundred words explaining the applicant’s goals in pursuing graduate study in English, sent directly to the Director of the M.A. in English.
5. A writing sample of 8 to 10 pages, preferably academic writing completed within the past two years. For students who completed their undergraduate work more than one year before their application, professional writing of similar length, such as, but not limited to a grant proposal, a newsletter, or a business report may be submitted to fulfill this requirement. The applicant’s writing sample, in all cases, should be accompanied by a brief statement of the context for which the writing was done. This writing sample should be sent directly to the Director of the M.A. in English.
6. Three letters of recommendation from people who know the applicant’s academic work, sent directly to the Director of the M.A. in English.
# Master of Arts in English, Literature

**Director M.A. in English:** Matthew C. Hansen  
Liberal Arts Building, Room 205, Mail Stop 1525  
Telephone (208) 426-1215  
e-mail: matthewhansen@boisestate.edu  
www.boisestate.edu/english/ma

## Degree Requirements

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<tr>
<th>Master of Arts in English, Literature</th>
<th>Credits</th>
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<tr>
<td><strong>Course Number and Title</strong></td>
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<tr>
<td>The Master of Arts in English, Literature offers two options for completion of the degree. The first is a 33-hour thesis/project option, which requires 15 hours of core courses and 15 hours of general electives plus a 3-credit thesis or project. This option is designed particularly for students who plan to continue their studies in a doctoral program, students whose concentration is in composition and rhetoric, and others who wish to engage in an intensive research and writing experience in their final semester. The other is a 36-hour course work degree, which includes 15 hours of core requirements and 21 hours of general electives. This degree is designed for students who wish to study a wide range of literature, rhetoric and composition, linguistics, English Education and/or Technical Communication courses.</td>
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<td><strong>Core Requirements:</strong></td>
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<tr>
<td>ENGL 500 Research Methods in Literary Studies</td>
<td>3</td>
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<tr>
<td>ENGL 561 Theories of Rhetoric and Composition OR ENGL 588 Survey of Critical Theory</td>
<td>3</td>
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<td>ENGL 510 Seminar in Major American or English Writer</td>
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<td>ENGL 530 Studies in a Literary Period</td>
<td>6</td>
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<td>Candidates must take at least two period courses. One of these must be in medieval through eighteenth-century literature and one in nineteenth- or twentieth-century literature. Courses will be offered in the following periods:</td>
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<td>Studies in Medieval English Literature</td>
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<td>Studies in Renaissance Literature</td>
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<td>Studies in Restoration and Eighteenth-Century Literature</td>
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<td>Studies in English Romanticism</td>
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<td>Studies in Victorian Literature</td>
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<td>Studies in Twentieth-Century English Literature</td>
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<td>Studies in Colonial American Literature</td>
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<td>Studies in Nineteenth-Century American Literature</td>
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<td>Studies in Twentieth-Century American Literature</td>
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<tr>
<td>Studies in Twentieth-Century Postcolonial Literature in English</td>
<td></td>
</tr>
<tr>
<td><strong>Electives:</strong></td>
<td></td>
</tr>
<tr>
<td>To be selected from other graduate offerings in Literature, Linguistics, English Education, Rhetoric and Composition, Creative Writing, and Technical Communication. The electives may include ENGL 588 Seminar for Teaching Assistants, a maximum of six credits of ENGL 400G courses, and a maximum of three credits of independent work in ENGL 590, ENGL 595, and/or ENGL 596.</td>
<td>15</td>
</tr>
</tbody>
</table>

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**Master of Arts in English, Literature (continued)**

| Thesis or Project Option: students take 3 credits of ENGL 591 Project or ENGL 593 Thesis in their final semester. With the help of an advisor, the student selects a thesis or project topic and prepares a prospectus before the student’s final semester. After completion of the thesis or project, the student must pass an oral defense. | 36 |
| Course work Option: students take six additional hours of electives as described above, for a total of 21 hours of electives. | |

**Additional information:**  
No credits taken outside the English Department may be applied toward graduation requirements. Only three (3) credits of Thesis or Project may be applied toward graduation requirements. No more than six credits earned in pass/fail or workshop courses may be applied toward a graduate degree (see Graduate Catalog under “Academic Policies, Credit Limits for Pass/Fail Courses, Workshops, and Directed Research”).

**TOTAL**  
33-36
**Master of Arts in English, Rhetoric and Composition**

**Director M.A. in English:** Matthew C. Hansen  
Liberal Arts Building, Room 205, Mail Stop 1525  
Telephone (208) 426-1215  
e-mail: matthewhansen@boisestate.edu  
www.boisestate.edu/english/ma

**Degree Requirements**

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required courses:</td>
<td></td>
</tr>
<tr>
<td>ENGL 554 Research Methods in Rhetoric and Composition</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 561 Theories of Rhetoric and Composition</td>
<td>3</td>
</tr>
<tr>
<td>Rhetoric and Composition Electives. Courses to be selected from the following:</td>
<td>12</td>
</tr>
<tr>
<td>ENGL 563 The Theory and Teaching of Basic Writing</td>
<td></td>
</tr>
<tr>
<td>ENGL 567 Grammar and the Teaching of Writing: Theory and Practice</td>
<td></td>
</tr>
<tr>
<td>ENGL 568 The Essay Tradition</td>
<td></td>
</tr>
<tr>
<td>ENGL 583 Selected Topics in Rhetoric and Composition</td>
<td></td>
</tr>
<tr>
<td>This course may be taken with different focuses for a total of three times. The following are examples of titles that might be offered:</td>
<td></td>
</tr>
<tr>
<td>Computers and Composition</td>
<td></td>
</tr>
<tr>
<td>Argument and Academic Writing</td>
<td></td>
</tr>
<tr>
<td>Rhetoric and Ethics</td>
<td></td>
</tr>
<tr>
<td>Cultural Studies and Composition</td>
<td></td>
</tr>
<tr>
<td>Adult Learners and Writing/Literacy Instruction</td>
<td></td>
</tr>
<tr>
<td>Writing Center Theory and Practice</td>
<td></td>
</tr>
<tr>
<td>Tutoring in the Writing Classroom</td>
<td></td>
</tr>
<tr>
<td>Rhetoric, Composition, and New Media</td>
<td></td>
</tr>
<tr>
<td>Feminism and Composition</td>
<td></td>
</tr>
<tr>
<td>ENGL 590 Practicum/Internship*</td>
<td></td>
</tr>
</tbody>
</table>

**English Electives:**  
To be selected from graduate offerings in Literature, Linguistics, Rhetoric and Composition, Technical Communication, Creative Writing and English Education. The electives may include ENGL 598 Seminar for Teaching Assistants, a maximum of six credits of ENGL 400G courses, and a maximum of three credits of independent work in ENGL 595, ENGL 596, and ENGL 696.

<table>
<thead>
<tr>
<th>Culminating Activity:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 591 Project OR ENGL 592 Portfolio OR ENGL 593 Thesis</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL**  
33

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**Master of Arts in Teaching English Language Arts**

**Director M.A. in Teaching English Language Arts:** Bruce Robbins  
Liberal Arts Building, Room 211F, Mail Stop 1525  
Telephone (208) 426-3036  
e-mail: brobbins@boisestate.edu  
http://english.boisestate.edu/englteaching

**General Information**

The Master of Arts in Teaching English Language Arts is designed to enhance the professional knowledge and teaching skills of practicing teachers from elementary through high school who are interested in supporting their students’ achievement in literacy. The broad-based program may combine work from several university resources, including: courses in English, Literacy Education, and the Boise State Writing Project. The program works within the teacher’s current instructional context to connect research and theory in literacy learning with effective classroom teaching practices.

The three major strands (writing/composing, reading/literature, language) in the program requirements reflect the three areas of concentration required by the national standards for English language arts teachers including the National Council of Teachers of English (NCTE) and National Council for Accreditation of Teacher Education (NCATE), and required by the National Professional Board of Teaching Standards (NPBTS).

**Application and Admission Requirements**

To be considered for admission, applicants must meet general Graduate College requirements:

- Application form and fee, submitted online at www.boisestate.edu/gradcoll
- Official transcripts of previous college work

In addition, admission to this program requires the following:

- Two letters of recommendation from people who can describe your academic ability and your experience with and commitment to effective teaching.
- A statement of 500-1000 words describing your professional goals and the ways in which the program can help you achieve them.

**Degree Requirements**

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Writing/Composing Courses to be selected from the following:</td>
<td>6-9</td>
</tr>
<tr>
<td>ENGL 501 The Teaching of Writing</td>
<td></td>
</tr>
<tr>
<td>ENGL 502 Teaching Creative Nonfiction, Poetry and Fiction Writing</td>
<td></td>
</tr>
<tr>
<td>ENGL 561 Theories of Rhetoric and Composition</td>
<td></td>
</tr>
<tr>
<td>ENGL 563 Teaching Basic Writing</td>
<td></td>
</tr>
<tr>
<td>ENGL 579 Boise State Writing Project Invitational Institute</td>
<td></td>
</tr>
<tr>
<td>ENGL 582 Selected Topics in Teaching English Language Arts</td>
<td></td>
</tr>
<tr>
<td>Arts when topic concerns writing instruction</td>
<td></td>
</tr>
<tr>
<td>ENGL 583 Topics in Rhetoric and Composition</td>
<td></td>
</tr>
<tr>
<td>ENGL 594 Workshops concerning writing instruction*</td>
<td></td>
</tr>
</tbody>
</table>

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—— continued ——
### Master of Arts in Teaching English Language Arts (continued)

**Reading/Literature** Courses to be selected from the following:
- ED-L TCY 546 Advanced Children’s Literature
- ED-L TCY 547 Advanced Young Adult Literature
- ENGL 581 Literature for use in Junior and Senior High Schools
- ENGL 582 Selected Topics in Teaching English Language Arts when topic concerns reading/literature instruction
- ENGL 594 Workshops concerning reading/literature instruction*

<table>
<thead>
<tr>
<th>Credits</th>
<th>Courses</th>
</tr>
</thead>
</table>
| 6-9     | ED-L TCY 546 Advanced Children’s Literature  
ED-L TCY 547 Advanced Young Adult Literature  
ENGL 581 Literature for use in Junior and Senior High Schools  
ENGL 582 Selected Topics in Teaching English Language Arts when topic concerns reading/literature instruction  
ENGL 594 Workshops concerning reading/literature instruction* |

**Language Study/Linguistics** Courses to be selected from the following:
- ED-L TCY 548 Psycholinguistics and Literacy
- ENGL 505 Linguistics
- ENGL 567 Grammar and the Teaching of Writing: Theory and Practice
- ENGL 582 Selected Topics in Teaching English Language Arts when topic concerns language/grammar instruction
- ENGL 585 Selected Topics in Linguistics
- ENGL 583 Topics in Rhetoric and Composition when the topic concerns second-language writing or the teaching of grammar
- ENGL 594 Workshops concerning language instruction*
- LING 407G Applied Linguistics in Teaching English as a Second Language

<table>
<thead>
<tr>
<th>Credits</th>
<th>Courses</th>
</tr>
</thead>
</table>
| 6-9     | ED-L TCY 548 Psycholinguistics and Literacy  
ENGL 505 Linguistics  
ENGL 567 Grammar and the Teaching of Writing: Theory and Practice  
ENGL 582 Selected Topics in Teaching English Language Arts when topic concerns language/grammar instruction  
ENGL 585 Selected Topics in Linguistics  
ENGL 583 Topics in Rhetoric and Composition when the topic concerns second-language writing or the teaching of grammar  
ENGL 594 Workshops concerning language instruction*  
LING 407G Applied Linguistics in Teaching English as a Second Language |

**Research** Courses to be selected from the following:
- ENGL 500 Research Methods in Literary Studies
- ENGL 554 Research Methods in Rhetoric and Composition
- ENGL 582 Selected Topics in Teaching English Language Arts when topic concerns teacher research methods

<table>
<thead>
<tr>
<th>Credits</th>
<th>Courses</th>
</tr>
</thead>
</table>
| 3       | ENGL 500 Research Methods in Literary Studies  
ENGL 554 Research Methods in Rhetoric and Composition  
ENGL 582 Selected Topics in Teaching English Language Arts when topic concerns teacher research methods |

Electives to bring total graduate-level courses to 30 credits. Use courses from English, Literacy, or other approved courses.*

**Culminating Activity**
- ENGL 592 Portfolio

**TOTAL** 33

*The total number of credits cannot exceed 10 for ENGL 590, 594-598, 696, 697, and any pass-fail and undergraduate courses (or equivalent transfer credits); see Restrictions on Certain Courses for details. No more than 6 credits of 400-level G courses may be counted toward the degree. No teacher in-service credits may be used.

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### Master of Arts in Technical Communication

**Director of Technical Communication:** Mike Markel  
Liberal Arts Building, Room 234, Mail Stop 1525  
Telephone (208) 426-3088 or 426-1246  
e-mail: mmarkel@boisestate.edu  
www.boisestate.edu/techcomm

**General Information**

Technical communication is a humanistic discipline in which people create, shape, and communicate technical information so that other people can use it safely, effectively, and efficiently. Although most of the courses in the program involve high-technology tools, the core of technical communication is clear written and oral communication. Fundamental in our approach to technical communication is ethics: the writer’s understanding that the people who read and use the information must be treated with dignity, as ends rather than merely means. Also fundamental is the writer’s awareness that technical communication can affect various constituencies—from co-workers to customers to the general public—and even the environment itself.

Against this backdrop of clear, ethical communication, our students learn the theory of technical communication, drawing on such disciplines as reading and writing theory, linguistics, cognitive psychology, sociology, and gender studies. Then students progress through courses in writing, editing, and ethics. A course in visual rhetoric and information design prepares students for subsequent courses in print and on-screen production. Finally, students take a course in oral communication skills, for technical communicators speak and listen far more than they write. Students also complete a 3-credit internship. In addition, there are a number of elective courses.

Students follow one of two tracks, the first of which culminates in a project or thesis, the second of which culminates in a portfolio.

**Application and Admission Requirements**

You are encouraged to apply if you possess a bachelor’s degree with a 3.0 GPA. The full application package will also include official undergraduate transcripts, three letters of reference from employers or professors, and a 1,000-word statement describing your professional goals and the ways in which the program can help you achieve them. Visit our Web site or see the Director of Technical Communication for more information on how to apply.
Degree Requirements

The course of study for the Master of Arts in Technical Communication consists of a minimum of 33 hours to be chosen by you and your advisory committee from one of the two tracks described below. Each track consists of required courses and electives. To fulfill the elective requirements, you may take additional graduate courses in technical communication or another discipline; however, you may apply to the degree no more than 3 credits in subjects other than technical communication. (Note: You may not count ENGL 405G or ENGL 415G toward your degree requirements.)

### Master of Arts in Technical Communication

**Alternative Program 1**

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>An introductory seminar (Introductory Seminar in Technical Communication), 21 hours of mandatory courses in technical communication, three hours of project or thesis, and three hours of internship. (If you already have professional work experience in technical communication, your advisor may permit you to substitute three additional elective credits for the internship.)</td>
<td></td>
</tr>
</tbody>
</table>

| ENGL 511 Introductory Seminar in Technical Communication               | 3       |
| ENGL 512 Technical Rhetoric and Applications                          | 3       |
| ENGL 513 Technical Editing                                            | 3       |
| ENGL 514 Technical Communication Ethics                               | 3       |
| ENGL 515 Visual Rhetoric and Information Design                       | 3       |
| ENGL 516 Topics in Print Document Production                         | 3       |
| ENGL 517 Oral Communication for Technical Communicators               | 3       |
| ENGL 521 Topics in On-screen Document Production                     | 3       |
| ENGL 550 Internship                                                  | 3       |

| ENGL 591 Project OR ENGL 593 Thesis                                   | 3       |

| Electives (no more than 3 credits from outside technical communication) | 3       |

| TOTAL                                                                 | 33      |

### Alternative Program 2 (continued)

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>An introductory seminar (Introductory Seminar in Technical Communication), 21 hours of mandatory courses in technical communication, a portfolio, and three hours of internship. (If you already have professional work experience in technical communication, your instructor may permit you to substitute three additional elective credits for the internship.)</td>
<td></td>
</tr>
</tbody>
</table>

| ENGL 511 Introductory Seminar in Technical Communication               | 3       |
| ENGL 512 Technical Rhetoric and Applications                          | 3       |
| ENGL 513 Technical Editing                                            | 3       |
| ENGL 514 Technical Communication Ethics                               | 3       |
| ENGL 515 Visual Rhetoric and Information Design                       | 3       |
| ENGL 516 Topics in Print Document Production                         | 3       |
| ENGL 517 Oral Communication for Technical Communicators               | 3       |
| ENGL 521 Topics in On-screen Document Production                     | 3       |
| ENGL 590 Internship                                                  | 3       |

| Electives (no more than 3 credits from outside technical communication) | 3       |

| TOTAL                                                                 | 33      |

See the course descriptions for prerequisites. Selected prerequisites may be waived or taken concurrently with the consent of your committee.

You may petition your committee to be exempted from up to six hours of required course work. This petition will be evaluated on the basis of your demonstrated experience and professional competence. If you receive an exemption, you will substitute an equivalent number of elective credits. (Note that you will still be permitted to apply to your degree no more than 3 credits from outside technical communication.)

### Graduate Certificate in Technical Communication

**Director of Technical Communication:** Mike Markel
Liberal Arts Building, Room 234, Mail Stop 1525
Telephone (208) 426-3088
www.boisestate.edu/techcomm
e-mail: mmarkel@boisestate.edu

**General Information**

The Graduate Certificate in Technical Communication is intended for students enrolled in any graduate degree program and for local professionals. A graduate student in geophysics, for instance, might wish to earn the certificate because he knows that he will be making presentations at professional conferences and writing journal articles. An accountant might wish to improve her technical communication skills to enhance her work performance. The certificate enables students to choose a unified, coherent group of courses in technical communication and related fields from other disciplines that will improve their understanding of the public role of written communication and their on-the-job skills.

### Application and Admission Requirements

The minimum requirement for admission to the certificate program is a baccalaureate degree from a regionally accredited college or university and admission to the Graduate College. In addition, applicants must submit to the Director of Technical Communication a 500-word statement explaining how the Graduate Certificate relates to their broader educational goals.

### Application Procedures

An applicant to the certificate program should follow the general application procedures for admission to a graduate program (see Application for Admission to a Graduate Program). Once the applicant’s file is complete, it will be reviewed by the Director of Technical Communication, who will provide an admission recommendation to the Dean of the Graduate College. The Dean will make the final admission decision and notify the applicant.
Certificate Requirements

<table>
<thead>
<tr>
<th>Graduate Certificate in Technical Communication</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Required Courses</strong></td>
<td></td>
</tr>
<tr>
<td>ENGL 512 Technical Rhetoric and Applications</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 513 Technical Editing</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 514 Technical Communication Ethics</td>
<td>3</td>
</tr>
<tr>
<td><strong>Elective Courses</strong></td>
<td></td>
</tr>
<tr>
<td>Select two of the following:</td>
<td></td>
</tr>
<tr>
<td>EDTECH 574 Instructional Software Development</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 511 Introductory Seminar in Technical</td>
<td>3</td>
</tr>
<tr>
<td>Communication</td>
<td></td>
</tr>
<tr>
<td>ENGL 515 Visual Rhetoric and Information Design</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 516 Topics in Print Document Production</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 517 Oral Communication for Technical</td>
<td>3</td>
</tr>
<tr>
<td>Communicators</td>
<td></td>
</tr>
<tr>
<td>ENGL 518 Writing Software Documentation</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 519 Technical Publications Management</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 521 Topics in On-screen Document Production</td>
<td>3</td>
</tr>
<tr>
<td>IPT 537 Instructional Design</td>
<td>4</td>
</tr>
<tr>
<td><strong>Students who wish to substitute an alternative course for one of the two listed electives may petition the Director of Technical Communication.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>15</td>
</tr>
</tbody>
</table>

Course Offerings

ENGL—ENGLISH

ENGL 401G ADVANCED NONFICTION WRITING (3-0-3)(F/S). Advanced practice in nonfiction genres, and study of how writers read and learn from other writers. Experimentation with subjects, voice, organization, and style. Students may take the course twice, for a total of 6 credits. Students seeking graduate credit will produce a greater quantity and high quality of original work, will have a separate and more extensive reading list, and will be expected to participate more fully in class activities. PREREQ: ENGL 201.

ENGL 405G PRINT DOCUMENT PRODUCTION (3-0-3)(F/S). An advanced study and application of the principles of producing effective technical documents. Topics include the relationship between layout and readability, techniques for combining textual and nontextual information, and the use of desktop publishing and graphics software. Students will produce basic print documents, such as brochures, data sheets, flyers, and manuals. PREREQ: ENGL 312 or PERM/INST.

ENGL 406G ADVANCED POETRY WRITING (3-0-3)(F/S). Intensive work in writing and critiquing poetry. Students seeking graduate credit will produce a greater quantity and higher quality of original work, will have a separate and more extensive reading list, and will be expected to participate more fully in class activities. May be repeated for up to six credit hours. PREREQ: ENGL 305 or PERM/INST.

ENGL 407G ADVANCED FICTION WRITING (3-0-3)(F/S). Intensive work in writing and critiquing fiction. Students seeking graduate credit will produce a greater quantity and higher quality of original work, will have a separate and more extensive reading list, and will be expected to participate more fully in class activities. May be repeated for up to six credit hours. PREREQ: ENGL 306 or PERM/INST.

ENGL 415G ON-SCREEN DOCUMENT PRODUCTION (3-0-3)(F/S). An advanced study and application of the principles involved in designing, creating, and managing information on the screen. Topics include the relationship between screen layout and readability; techniques for integrating text, graphics, and multimedia; principles of writing and indexing on-screen instructional materials; and the use of online help and Web-authoring software. Students will practice effective hypertext and screen-design techniques in producing basic electronic documents, such as online help and Web sites. PREREQ: ENGL 312 or PERM/INST.

ENGL 500 RESEARCH METHODS IN LITERARY STUDIES (3-0-3)(F/S). An introduction to research techniques and resources in advanced literary study. The course includes the use of bound and electronic reference sources, methods of bibliography and textual criticism, the significance of biographical, archival, and historical evidence in literary study, and standard conventions of scholarly documentation. PREREQ: Admission to Master of Arts in English program or PERM/CHAIR.

ENGL 501 THE TEACHING OF WRITING (3-0-3)(F/S). Theories and methods of teaching writing with focus on secondary school. Emphasis on research about the learning process in writing and the teacher’s role in creating effective writing instruction. COREQ: ENGL 581.

ENGL 502 TEACHING CREATIVE NONFICTION, POETRY, AND FICTION WRITING (3-0-3)(F/S). Theories and practices for teaching secondary school students, college students, and others how to write in genres such as creative nonfiction, poetry, and fiction. Emphasis is on teaching in classroom and workshop settings. PREREQ: Admission to program or PERM/INST.

ENGL 505 LINGUISTICS (3-0-3)(F/S)(Alternate years). Modern linguistic theories and their application to literature and teaching English. An examination of how various grammatical models represent the complexities of language sound, sequence, and structure. Application of theory to language at work. Alternate years. PREREQ: LING 305 or equivalent or PERM/CHAIR.

ENGL 507 SMALL PRESS PRODUCTION (3-0-3)(S). A practicum course that studies the manuscript selection and preparation, design, editing, distribution, and promotion practices of small presses with the intention of preparing students to write, design, and submit manuscripts for publication. Students acquire hands-on experience with Ahsahta Press. PREREQ: Admission to program or PERM/INST.

ENGL 508 WRITING, EDITING, AND DESIGNING FOR PROFESSIONAL ADVANCEMENT (3-0-3)(F/S). A writing course that studies literary journals, trade journals, and little magazines, and that looks at trade book and electronic publication with the intention of preparing students to write, design, and submit manuscripts, as well as prepare professional resumes and letters of application. Maybe repeated once for credit. PREREQ: Admission to program or PERM/INST.

ENGL 509 BOOK ARTS (3-0-3)(F/S). A historical survey of various aspects of bookmaking, including papermaking, typography, printing, binding, and desktop publishing, as well as book distribution/ marketing, and production of artist’s and eccentric bookworks. Course culminates in production of a classroom edition of each student’s original writings or art works in an appropriate format devised by the student. PREREQ: ENGL 309 or PERM/INST.

ENGL 510 SEMINAR IN MAJOR AMERICAN OR ENGLISH WRITER (3-0-3)(F/S). A consideration of minor and major artistic creations of an author with attention to major influences on the writer and his/her influences on others. Aspects of investigation to include the life of the author and its relation to his/her work, the society and culture of the times, his/her place and stature in the genres in which he/she worked, his/her use or disregard of tradition, as well as an investigation of contemporary criticism and critical evaluation since the writer’s time. Repeatable for credit. PREREQ: Admission to Master of Arts in English program or Master of Fine Arts in Creative Writing program or PERM/CHAIR.

ENGL 511 INTRODUCTORY SEMINAR IN TECHNICAL COMMUNICATION (3-0-3)(F/S). An introduction to the current definitions and theories of technical communication, including approaches from such related fields as rhetoric, linguistics, cognitive psychology, sociology, and philosophy. Students will also study the different job specializations within technical communication.

ENGL 512 TECHNICAL Rhetoric and Applications (3-0-3)(F/S). An advanced study of technical communication for those students who are or expect to become professional technical communicators. Topics of study include modern theories of rhetoric, focusing on the semantics, syntax, readability, pragmatics, and hypertext. Students will write reports, proposals, manuals, and online documents related to their own backgrounds and fields of interest. PREREQ: ENGL 302 or ENGL 402 or ENGL 511 or PERM/INST.

ENGL 513 TECHNICAL EDITING (3-0-3)(F/S). An advanced course in the editing of technical documents. Major projects are related to each student’s field of interest. Topics of study include the theory and ethics of editing, content editing, copy editing, developmental editing, production editing, and online editing. PREREQ: ENGL 312 or PERM/INST.

ENGL 514 TECHNICAL COMMUNICATION ETHICS (3-0-3)(F/S). An examination of the various ethical issues inherent in the practice of technical communication. Topics include the ancient debate about the claims of
ENGL 517 ORAL COMMUNICATION FOR TECHNICAL COMMUNICATORS (3-0-3) (F/S). The theory and practice of several major kinds of oral communication modes used by technical communicators, including interviewing of technical experts and clients, group discussion, and technical presentations that incorporate presentation software. PREREQ: ENGL 515 or PERM/INST.

ENGL 518 WRITING SOFTWARE DOCUMENTATION (3-0-3) (F/S). The study and application of principles for creating effective print and online documentation. Topics can include content design and organization, writing style, graphic design, hypertext, and usability testing. The course also addresses strategies for working successfully as a technical communicator. PREREQ: ENGL 515 or PERM/INST.

ENGL 519 TECHNICAL PUBLICATIONS MANAGEMENT (3-0-3) (F/S). Analysis and application of the principles of management and organizational behavior as they apply to the technical publications field. In a case-study environment focused on the publications process, students learn the techniques and practices of managing technical publications groups within organizational settings, while studying relevant principles of motivational theory and human behavior. PREREQ: ENGL 515 or PERM/INST.

ENGL 520 GENRE (3-0-3) (F/S). A study of a well defined literary category, such as novel, short story, epic, or tragedy. Examination of representative texts in order to discover the evolution of a specific literary genre while at the same time establishing its typical features. Repeatable for credit. PREREQ: Admission to Master of Arts in English program or Master of Fine Arts in Creative Writing program or PERM/CHAIR.

ENGL 521 TOPICS IN ON-SCREEN DOCUMENT PRODUCTION (3-0-3) (F/S). Study and application of the principles involved in designing, creating, and managing information on the screen. Topics vary but can include advanced Web design, help systems, and multimedia applications. Students practice effective hypertext and screen-design techniques from the fields of cognitive science, software psychology, and human factors. This course may be taken twice for credit. PREREQ: ENGL 512 or PERM/INST.

ENGL 522 POETRY WRITING WORKSHOP (3-0-3) (F/S). An advanced workshop in poetry. Students will write poems, submit their work for the critique of the workshop and contribute to the discussion of others’ writing. Readings may be assigned to address particular issues of craft and genre. Repeatable for credit. PREREQ: Admission to program or PERM/INST.

ENGL 523 FICTION WRITING WORKSHOP (3-0-3) (F/S). An advanced workshop in fiction. Students will write fiction, submit their work for the critique of the workshop and contribute to the discussion of others’ writing. Readings may be assigned to address particular issues of craft and genre. Repeatable for credit. PREREQ: Admission to program or PERM/INST.

ENGL 524 CREATIVE NONFICTION WRITING WORKSHOP (3-0-3) (F/S). An advanced workshop in creative nonfiction. Students will write creative nonfiction, submit their work for the critique of the workshop and contribute to the discussion of others’ writing. Readings may be assigned to address particular issues of craft and genre. Repeatable for credit. PREREQ: Admission to program or PERM/INST.

ENGL 550 LITERATURE AND CULTURE (3-0-3) (F/S). The interaction between a body of literature and the social, economic, and political forces that characterize the culture in which it originates. The influence of culture on literary form and content. Repeatable for credit. PREREQ: Admission to Master of Arts in English program or the Master of Fine Arts in Creative Writing program or PERM/CHAIR.

ENGL 551 THEORIES OF RHETORIC AND COMPOSITION (3-0-3) (F/S). A study of the theoretical context of current writing and writing pedagogy. Influenfial theories of invention, arrangement, and style, from ancient and modern times, are examined and compared. Special attention is paid to the relationships of current rhetorical and cognitive theories to writing processes and written products. PREREQ: Admission to Graduate Program or PERM/CHAIR.

ENGL 552 SMALL PRESS EDITORIAL SEMINAR (3-0-3) (F/S). A practicum course with an emphasis on the editorial processes of a small literary press. This course is for students who have completed ENGL 507. Students will work on product, copyedit, and proofread manuscripts in consultation with the editor of Absahra Press. They will also look at the larger question of creating a “list” for the publisher, taking into account how books may complement each other and how they might be best marketed. May be repeated twice for credit. PREREQ: ENGL 507 or PERM/INST.

ENGL 553 THEORY AND PRACTICE OF FORMAL ANALYSIS (3-0-3) (F/S). An intensive study of aspects of craft in fiction. Course will expose students to particular methods, approaches, and techniques in fiction and their aesthetic effects. May be taken twice for credit. PREREQ: Admission to program or PERM/INST.

ENGL 554 FORM AND THEORY OF CREATIVE NONFICTION (3-0-3) (F/S). An intensive study of aspects of craft in creative nonfiction. Course will expose students to particular methods, approaches, and techniques in creative nonfiction and their aesthetic effects. May be taken twice for credit. PREREQ: Admission to program or PERM/INST.

ENGL 558 WRITING SOFTWARE DOCUMENTATION (3-0-3) (F/S). The study and application of principles for creating effective print and online documentation. Topics can include content design and organization, writing style, graphic design, hypertext, and usability testing. The course also addresses strategies for working successfully as a technical communicator. PREREQ: ENGL 515 or PERM/INST.

ENGL 561 TECHNICAL PUBLICATIONS MANAGEMENT (3-0-3) (F/S). Analysis and application of the principles of management and organizational behavior as they apply to the technical publications field. In a case-study environment focused on the publications process, students learn the techniques and practices of managing technical publications groups within organizational settings, while studying relevant principles of motivational theory and human behavior. PREREQ: ENGL 515 or PERM/INST.

ENGL 563 FORM AND THEORY OF POETRY (3-0-3) (F/S). An advanced workshop in creative poetry. Students will write poetry, submit their work for the critique of the workshop and contribute to the discussion of others’ writing. Readings may be assigned to address particular issues of craft and genre. Repeatable for credit. PREREQ: Admission to program or PERM/INST.
ENGL 570 LITERARY MOVEMENTS (3-0-3)(F/S). A focus on a significant literary movement, the works of its major and minor contributors, its theories and its practice, its relation to its time, its place in literary history, its influence on writers past and present. Repeatable for credit. PREREQ: Admission to Master of Arts in English program or Master of Fine Arts in Creative Writing program or PERM/CHAIR.

ENGL 579 BOISE STATE WRITING PROJECT INVITATIONAL INSTITUTE (6-0-6)(SU). An intensive seminar sponsored by the National Writing Project in which accomplished teachers work together to 1) study ways to improve student writing, 2) share successful teaching practices through teaching demonstrations, 3) work on their own composing in various genres, 4) reflect upon their composing processes as a means to improve their teaching, and 5) develop a research literature review and teaching plan for an area of literacy instruction. Also includes professional development instruction. PREREQ: Must apply and be invited to participate.


ENGL 581 LITERATURE FOR USE IN JUNIOR AND SENIOR HIGH SCHOOLS (3-0-3)(F,S). A literary content course for prospective teachers of secondary school English. Primary emphasis on critical reading of literature for adolescents in secondary school. Secondary emphasis on methods of analysis appropriate to students. All genres as well as classic and popular authors. PREREQ: Two literature courses or PERM/INST. COREQ: ENGL 501.

ENGL 582 SELECTED TOPICS IN TEACHING ENGLISH LANGUAGE ARTS (3-0-3)(F,S). Study of current theories and topics in teaching the English Language Arts in composition, language, or literary theory of special interest to the experienced teacher. A specific focus will be announced each time the course is offered. Although targeted primarily at classroom teachers, the course may be appropriate for others who offer instruction, including technical writing trainers and teachers of literacy in GED centers, workplace literacy projects, and community education projects. Alternate years. PREREQ: ENGL 301 or ENGL 381 or ENGL 481 or teaching experience or PERM/INST.

ENGL 583 SELECTED TOPICS IN RHETORIC AND COMPOSITION (3-0-3)(F,S). Investigation of selected theories or topics in rhetoric and composition, drawing from areas such as composition theory; rhetorical theory/history; cultural studies; literary, media, and race/gender/class/ethnicity studies. Although of primary interest to rhetoric and composition majors, the course may be useful for graduate teaching assistants and for classroom teachers. Repeatable for credit. PREREQ: Admission to the Master of Arts in English program or Master of Fine Arts in Creative Writing program or PERM/CHAIR.

ENGL 585 SELECTED TOPICS IN LINGUISTICS (3-0-3)(F,S). An investigation of a particular topic in linguistics, drawn generally from psycholinguistics, sociolinguistics, semantics, pragmatics, discourse, syntax, or morphology. Course work will include lecture, discussion, and a paper or project, depending on the nature of the topic. Repeatable once for credit. PREREQ: LING 305 and Admission to Master of Arts in English program or Master of Fine Arts in Creative Writing program or PERM/CHAIR.

ENGL 588 SURVEY OF CRITICAL THEORY (3-0-3)(F,S). A survey of major contemporary theories of literary criticism and their effects on literary studies. PREREQ: Admission to Master of Arts in English program or Master of Fine Arts in Creative Writing program or PERM/CHAIR.

ENGL 589 SEMINAR FOR TEACHING ASSISTANTS (3-0-3)(F). Focuses on writing theory and practice, the teaching community, and the Department's English Composition courses for first semester Teaching Assistants. The seminar will provide information and support for the assistants while they learn to meet their obligations as classroom teachers. PREREQ: PERM/INST.

LING—LINGUISTICS

LING 407G APPLIED LINGUISTICS IN TEACHING ENGLISH AS A SECOND LANGUAGE (3-0-3)(F/S)(Alternate years). Designed to help teachers in the bilingual classroom or teachers of students of limited proficiency in speaking English to understand how to deal with the process of learning English. It will focus on identifying, defining, and remediating the specific problems that confront learners of a second language. PREREQ: LING 305. Refer to the “University-wide Graduate Courses” section in this catalog for additional course offerings.
**Doctor of Philosophy in Geophysics**

**Doctoral Program Coordinator:** Kasper van Wijk  
Math/Geosciences Building, Room 206E, Mail Stop 1535  
Telephone (208) 426-4604  
e-mail: kaspervanwijk@boisestate.edu

**General Information**

The Doctor of Philosophy in Geophysics degree requires completion of a prescribed course of study in geophysics and an area of emphasis outside of geophysics, satisfactory performance on a comprehensive examination, and independent completion of original research that results in a publicly defended dissertation that contributes significantly to geophysical knowledge.

**Graduate Teaching and Research Fellowships**

Graduate fellowships including tuition and fee waivers are funded from three sources: appropriated state funds, endowments, and research grants and contracts. Applicants to the Ph.D. in Geophysics program who submit all documents required by the admission procedure by January 1 of any given year will be considered for a state appropriated or endowed graduate fellowship to start the following fall semester; notification of successful applicants will be during February and March. Information on graduate fellowships funded by research grants and contracts is available from the Coordinator of the geophysics doctoral program.

**Supervisory Committee**

The Supervisory Committee is charged with general guidance of the doctoral student, including design and approval of the program of study, administration of the comprehensive examination, supervision of the dissertation research, and participation in the dissertation defense. The Supervisory Committee consists of a principal advisor who acts as chair, one member from the student’s chosen area of emphasis outside of geophysics (see Credit Requirements below), and at least two additional members, all of whom must be members of the University regular or research faculty and must also be members of the Graduate Faculty. One or more additional members may be appointed when such appointments enhance the function of the Committee. In all cases, regular or research faculty members of the Department of Geosciences must constitute a majority of the Supervisory Committee.

**Application and Admission Requirements**

Applicants are required to have a Bachelor’s or Master’s degree in a physical science, engineering, computer science, or mathematics from an accredited college or university. Admission will be competitive and will be based on transcripts, professional references, scores on the general test of the Graduate Record Examination (GRE), and evaluation of a technical manuscript provided by the applicant as evidence of technical writing skills. Students whose native language is not English must submit a TOEFL score of 587 or higher for the written exam or 95 Internet-based test (iBT). Application materials should be requested from the Coordinator, Geophysics Doctoral Program, Boise State University, 1910 University Drive, Boise, ID 83725, telephone (208) 426-1631 or e-mail: kaspervanwijk@cgiss.boisestate.edu.

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### Degree Requirements

<table>
<thead>
<tr>
<th>Doctor of Philosophy in Geophysics</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOPH 501 Properties and Processes in Geophysics I</td>
<td>4</td>
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<tr>
<td>GEOPH 502 Properties and Processes in Geophysics II</td>
<td>4</td>
</tr>
<tr>
<td>Geophysics elective courses approved by the supervisory committee and by the Coordinator of the geophysics doctoral program</td>
<td>18</td>
</tr>
<tr>
<td>Area of emphasis outside of geophysics</td>
<td>12</td>
</tr>
<tr>
<td>Additional courses in geophysics and/or area of emphasis</td>
<td>10</td>
</tr>
<tr>
<td>GEOPH 693 Dissertation</td>
<td>18</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>66</strong></td>
</tr>
</tbody>
</table>

### Credit Requirements

Courses applied to meet the 66-credit minimum requirement must be taken for a letter grade (A–F), except that GEOPH 693 Dissertation is initially graded IP (In Progress) and later graded P (Pass) or F (Fail) depending on the outcome of the dissertation defense. All geophysics electives must be graduate GEOPH courses with at least 12 credits at the 600 level. It is highly recommended that all geophysics graduate students take GEOPH 605 (Inversion Theory and Geophysical Applications) early in their program as one of their geophysics electives. Courses that comprise the area of emphasis outside of geophysics will typically be chosen from geology, physics, chemistry, engineering, computer science, or public policy, and must be approved by the Supervisory Committee. Courses taken to satisfy background requirements are not eligible to meet the credit requirements. On-campus graduate students are required to enroll for GEOPH 598 Graduate Seminar each and every time it is offered but GEOPH 598 may not be applied to meet the geophysics elective requirement.

### Comprehensive Examination

The objective of the comprehensive examination is to judge depth and breadth of knowledge in geophysics and the area of emphasis. The examination is to be developed and administered by the Supervisory Committee. A student must take the comprehensive examination in the semester following completion of 36 course credits that are to be applied to the program requirements (exclusive of GEOPH 693 Dissertation but inclusive of transfer credits). The outcome of the examination is determined by the Supervisory Committee and must be pass or fail. A student who fails the comprehensive examination is dismissed from the Ph.D. program.
Dissertation Requirements
The dissertation must be the result of independent and original research by the student and must constitute a significant contribution to geophysical knowledge equivalent to multiple peer-reviewed publications. The style and format of the dissertation are to conform to the standards of the Department of Geosciences and the Graduate College.

Dissertation Defense
A public defense of the dissertation is scheduled after the Supervisory Committee has reviewed a draft that is considered to be nearly a final version. The date of the defense is determined jointly by the Supervisory Committee and the student and must be consistent with any guidelines provided by the Graduate College. A Defense Committee is formed that consists of a non-voting Graduate Faculty Representative (GFR) and the following voting members: the chair and members of the Supervisory Committee and an external examiner. The GFR chairs the Defense Committee and is appointed by the Dean of the Graduate College in accordance with Graduate College guidelines. The GFR must have Full Graduate Faculty status, must be from outside the student’s discipline, and cannot be a member of the Supervisory Committee. The external examiner is a faculty member from another university who is a recognized expert in the field of the dissertation research and is appointed to the Defense Committee by the Dean of the Graduate College. Attendance at the defense by external examiner is not required. A written evaluation of the dissertation must be submitted by the external examiner in the event that he or she does not attend the defense. If a written evaluation is submitted, it must include a pass/fail vote and must be delivered to the chair of the defense committee at least 3 weeks prior to the defense. The written evaluation provided by the external examiner is distributed to the other members of the Defense Committee at least 2 weeks before the defense. The chair of the Defense Committee conducts the defense according to the procedure established for the Department of Geosciences by the Graduate Program Committee. A majority vote is used to decide the outcome (pass or fail). In the event of a split vote, the Dean of the Graduate College will also cast a vote after consultation with the defense chair and the Supervisory Committee. A student who fails the defense may be permitted to try again but failure a second time will result in dismissal from the program.

Final Approval of the Dissertation
If the defense is completed with a result of pass, the Supervisory Committee prepares a statement describing final requirements such as additions or modifications to the dissertation and any additional requirements such as archival of data. When these requirements have been met to the satisfaction of the Supervisory Committee, the approval page of the dissertation is signed by the members of the Committee.

Doctor of Philosophy in Geosciences
Doctoral Program Coordinator: Mark Schmitz
Math/Geosciences Building, Room 205A, Mail Stop 1535
Telephone: (208) 426-5907
FAX: (208) 426-4061
e-mail: markschmitz@boisestate.edu

General Information
Boise State University offers a Doctor of Philosophy in Geosciences through the Department of Geosciences. The degree requires completion of a prescribed course of study in geosciences, satisfactory performance on a comprehensive examination, and independent completion of original research that results in a publicly defended dissertation that contributes significantly to geoscientific knowledge.

Graduate Teaching and Research Fellowships
Graduate fellowships including tuition and fee waivers are funded from three sources: appropriated state funds, endowments, and research grants and contracts. Applicants to the Ph.D. in Geosciences program who submit all documents required by the admission procedure by February 1 of any given year will be considered for a state appropriated or endowed graduate fellowship to start the following fall semester; notification of successful applicants will be during February and March. Information on graduate fellowships funded by research grants and contracts is available from the coordinator of the doctoral program in geosciences.

Graduate Program Committee
The Graduate Program Committee of the Department of Geosciences consists of the graduate program coordinators for each of the graduate programs in the department, plus the chair of the Department. The duties of the Graduate Program Committee are defined by the Department and are consistent with policies set by the University. These duties include development of recommendations for admission of prospective graduate students, decisions on transfer credits and required background courses, decisions on the award of departmental graduate fellowships and assistantships, and appointment of Supervisory Committees for graduate students.

Supervisory Committee
The Supervisory Committee is charged with general guidance of the doctoral student, including design and approval of the program of study, administration of the comprehensive examination, supervision of the dissertation research, and participation in the dissertation defense. The composition of the Supervisory Committee is recommended by the Graduate Program Committee and approved and appointed by the Graduate College.
Application and Admission Requirements

An applicant must follow the general application procedures for admission to a graduate program (see Graduate Admission Regulations). Applicants are required to have a Bachelor’s or Master’s degree in a geosciences or a related discipline from an accredited college or university. Admission will be competitive and will be based on transcripts, professional references, scores on the general test of the Graduate Record Examination (GRE), and evaluation of a letter of intent which describes the applicant’s professional interests and plans for the future. Students whose native language is not English must submit a TOEFL score of 587 or higher for the written exam or 95 Internet-based test (iBT). Application materials should be requested from the coordinator, Geosciences Doctoral Program, Boise State University, 1910 University Drive, Boise, ID 83725, telephone (208) 426-5907 or e-mail: markschmitz@boisestate.edu.

Degree Requirements

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geosciences courses (GEOG, GEOPH, or GEOS) approved by the supervisory committee and by the coordinator of the geosciences doctoral program</td>
<td>32</td>
</tr>
<tr>
<td>Additional elective courses in geosciences or related fields as approved by the supervisory committee and by the coordinator of the geosciences doctoral program</td>
<td>16</td>
</tr>
<tr>
<td>GEOS 600 Assessment [Comprehensive Examination]</td>
<td>1</td>
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<tr>
<td>GEOS 693 Dissertation</td>
<td>18</td>
</tr>
<tr>
<td>TOTAL</td>
<td>67</td>
</tr>
</tbody>
</table>

Graduate Seminar

On-campus graduate students are required to enroll for GEOS 598 graduate seminar each and every semester it is offered but GEOS 598 may not be applied to meet the Geosciences elective requirement.

Comprehensive Examination

The objective of the comprehensive examination is to judge depth and breadth of knowledge in Geosciences, and it is developed and administered by the Supervisory Committee. A student must take the comprehensive examination prior to the end of their fourth semester. The outcome of the examination is determined by the Supervisory Committee and must be one of the following: pass or fail.

Dissertation Requirements

The dissertation must be the result of independent and original research by the student and must constitute a significant contribution to geoscientific knowledge equivalent to multiple peer-reviewed publications. The style and format of the dissertation are to conform to the standards of the Department of Geosciences and the Graduate College.

Dissertation Defense

A public defense of the dissertation is scheduled after the Supervisory Committee has reviewed a draft that is considered to be nearly a final version. The Supervisory Committee and the student determine the date of the defense jointly and must be consistent with any guidelines provided by the Graduate College. The defense is conducted according to the procedure established by the Department of Geosciences and governed by the policies of the Graduate College.

Final Approval of the Dissertation

If the defense is completed with a result of pass, the Supervisory Committee prepares a statement describing final requirements such as additions or modifications to the dissertation and any additional requirements. When these requirements have been met to the satisfaction of the Supervisory Committee, the members of the Committee sign the approval page of the dissertation.

Graduate College Requirements

The general requirements of the Boise State Graduate College also govern the Doctor of Philosophy in Geosciences degree program.

Master of Science in Earth Science

Graduate Program Coordinator: David Wilkins
Math/Geosciences Building, Room 223, Mail Stop 1535
Telephone (208) 426-2390
e-mail: dwilkins@boisestate.edu

General Information

The curriculum for the Master of Science in Earth Science is targeted towards in-service teachers and stresses current developments in the earth science disciplines. In addition to subject matter knowledge, emphasis is placed on the varied methods that can be used for teaching earth science. Because of the varied backgrounds of candidates, the student’s degree program can be designed to allow flexibility in choosing course offerings. Special Topics courses and seminars are frequently offered, expanding the program choices. Programs of study for each student are designed in consultation with the Earth Science Graduate Program Coordinator and the student’s supervisory committee.

Application and Admission Requirements

Application for admission may be made by graduates of accredited institutions holding a baccalaureate degree in earth science education, geology, or related discipline. Regular admission may be awarded to applicants who have earned a minimum grade point average of 3.0 during the last two years of academic work; admission will be based on grade point, GRE scores, and letters of recommendation. Continued enrollment in the program requires a minimum of 3.0 grade point (B) average and satisfactory progress toward the degree.
Degree Requirements

### Master of Science in Earth Science

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Required courses:</strong></td>
<td></td>
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<tr>
<td>Graduate Core</td>
<td>6</td>
</tr>
<tr>
<td>ED-CIFS 503 Fundamentals of Educational Research</td>
<td>3</td>
</tr>
<tr>
<td>ED-CIFS 506 Issues in Education</td>
<td>4</td>
</tr>
<tr>
<td>ED-CIFS 536 Curriculum Planning and Implementation</td>
<td>3</td>
</tr>
<tr>
<td>ED-CIFS 537 Instructional Theory</td>
<td>3</td>
</tr>
<tr>
<td>ED-CIFS 597 Core Special Topics</td>
<td>2</td>
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</tbody>
</table>

All other courses to be taken in the degree program are planned by the student and the graduate committee.

Content Area Courses 14

Approved Electives 7

GEOS 591 Project or GEOS 593 Thesis 6
A final comprehensive oral and/or written examination over course work and the thesis or project is required.

**TOTAL** 33

**Credit Requirements**

All 33 credits must be taken for a letter grade, except for GEOS 591 Project or 593 Thesis credits which will be graded Pass/Fail.

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### Master of Science in Geology

Graduate Program Coordinator: Mark Schmitz
Math/Geosciences Building, Room 205A, Mail Stop 1535
Telephone (208)-426-5907
e-mail: markschmitz@boisestate.edu

**General Information**

The program leading to the degree of Master of Science (M.S.) in geology is designed to prepare students for professional careers or further graduate studies in earth, environmental, or hydrological sciences. Completion of the program requires completion of an individually tailored curriculum approved by the graduate program committee, and original research that culminates in a publicly defended thesis. Opportunities for research span a wide range of fundamental and applied science topics in earth, environmental and hydrological sciences. Students are encouraged to contact individual faculty members for further information.

**Application and Admission Requirements**

Application for admission may be made by graduates of accredited institutions holding a baccalaureate degree in geology or related discipline. Regular admission may be awarded to applicants who have earned a minimum grade point average of 3.0 during the last two years of academic work; admission will be based on grade point, GRE scores, and letters of recommendation. Continued enrollment in the program requires a minimum 3.0 grade point (B) average and satisfactory progress toward the degree.

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**Degree Requirements**

### Master of Science in Geology

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Geology Core (4 of the following 6 courses)</strong></td>
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<tr>
<td>GEOS 523 Advanced Geomorphology</td>
<td>3</td>
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<tr>
<td>GEOS 525 Whole Earth Geochemistry</td>
<td>3</td>
</tr>
<tr>
<td>GEOS 541 Plate Tectonics</td>
<td>3</td>
</tr>
<tr>
<td>GEOS 560 Volcanology</td>
<td>3</td>
</tr>
<tr>
<td>GEOS 607 Paleoclimatology and Paleoceanography</td>
<td>3</td>
</tr>
<tr>
<td>GEOS 611 Basin Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>

GEOS 601 Graduate Orientation 2
Mandatory for the first year on campus for all students

GEOS 598 Graduate Seminar 1
Enrollment in Graduate Seminar is required each semester of all graduate students in residence; one credit may be applied towards graduation.

GEOS 593 Thesis 6

Additional elective courses as approved by the supervisory committee and by the coordinator of the MS Geology program 9

**TOTAL** 30

**Credit Requirements**

All 30 credits must be taken for a letter grade, except for GEOS 593 Thesis credit which will be graded Pass/Fail.

**Thesis Requirements**

A thesis representing research of sufficient quality to warrant publication in a peer-reviewed journal is required of all candidates for the Master of Science in Geology. Actual publication is not required, but is held out as a goal for all graduate students. The research results must be presented at a formal public defense, and the final written thesis must be approved by the supervisory committee, by the Coordinator of the geology graduate program, and by the Dean of the Graduate College. In order to provide sufficient time for thorough evaluation of thesis research, a student should allow 3-6 months between preparation of the first draft of the thesis and the day of the formal defense. Frequent communication between the student, the supervisory committee, and the Coordinator is essential throughout this period.

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Boise State University 2009-2010 Graduate Catalog
Master of Science in Geophysics

Graduate Program Coordinator: Kasper van Wijk
Math/Geosciences Building, Room 206E, Mail Stop 1535
Telephone (208) 426-4604
e-mail: kaspervanwijk@boisestate.edu

General Information

The Master of Science in Geophysics degree requires 30 total credits distributed as follows: 12 graduate geophysics course credits, 12 credits in approved science or engineering courses, and at least 6 thesis research credits leading to an approved thesis. The overall goal of the graduate geophysics program is to provide a balanced education in the following areas:

- geophysical theory and methods including the quantification of error and resolution;
- problem definition, characteristics of an acceptable scientific solution, and an understanding of the effort required to reach an acceptable solution;
- the interrelationship of geophysics with other scientific and engineering disciplines;
- oral and written technical communication;
- project management and teamwork;
- an introduction to the geoscience profession beyond the classroom including the establishment of professional contacts.

Achievement of these educational objectives requires that a graduate student be exposed to classroom and laboratory instruction, thesis research, seminars, field trips, preparation of proposals and papers, presentations at professional meetings, short-term work assignments on sponsored projects, and interaction with a wide variety of faculty, research staff, students, and off-campus scientists and engineers. Current research emphases at Boise State include the following:

- applications of surface and borehole geophysical methods to hydrogeological, environmental, and engineering problems;
- geophysical measurement of the engineering properties of earth materials;
- determination of the relationship between geophysical and hydrological parameters;
- use of marine sedimentology and borehole geophysics to study the interaction between the oceans and continental climate;
- investigation of physical process dynamics during cold season flooding.

The geophysics program is well equipped with modern digital field instrumentation and computational facilities, and is closely tied to the Center for Geophysical Investigation of the Shallow Subsurface (CGISS) at Boise State.

The Boise State University Master of Science program in geophysics interacts cooperatively with Idaho State University (ISU) in that up to 12 credits earned in approved courses at ISU can be applied to a Master of Science in Geophysics at BSU or ISU. In addition, faculty at BSU and ISU may form joint supervisory committees when expertise from outside of the student’s resident institution is judged to be beneficial. These cooperative efforts by BSU and ISU add flexibility and geographic accessibility to graduate education in geophysics within Idaho.

Graduate Assistantships, Teaching and Research Fellowships

Graduate assistantships and fellowships including tuition and fee waivers are funded from three sources: appropriated state funds, endowments, and research grants and contracts. Applicants to the M.S. Geophysics program who submit all documents required by the admission procedure by February 1 of any given year will be considered for a state appropriated or endowed graduate assistantships and fellowships to start the following fall semester; notification of successful applicants will be during February and March. Information on graduate fellowships funded by research grants and contracts is available from the Coordinator of the geophysics graduate program.

Supervisory Committee

Each admitted student will be assigned a supervisory committee whose purpose is to design the program of courses, guide the student’s research, conduct the thesis defense, and approve the final thesis. The supervisory committee consists of at least three members: a chair from BSU who takes on the primary advising role, and at least two members chosen in any combination from BSU, ISU, or other institutions (selection based on a direct interest in the student’s research). The Coordinator of the geophysics graduate program works closely with each supervisory committee and will serve as temporary advisor to each new student until a supervisory committee can be assigned.

Application and Admission Requirements

Applicants should have a B.S. or equivalent degree from an accredited institution in one of the following fields: geophysics, geology, hydrology, physics, chemistry, mathematics, or engineering. Evaluation for admission requires three personal references, transcripts from all colleges and universities attended, and scores on the GRE General Test. Students whose native language is not English must submit a TOEFL score of 587 or higher for the written exam or 95 Internet-based test (iBT). A copy of a report resulting from a previous university course, professional position, or research experience is also requested as evidence of the applicant’s ability to complete a significant project and write an acceptable scientific report. Preference is given to those applicants whose records indicate a high probability for successful completion of publishable graduate research. Application materials should be requested from the Coordinator, Geophysics Graduate Program, Boise State University, 1910 University Drive, Boise, ID 83725.

Degree Requirements

<table>
<thead>
<tr>
<th>Master of Science in Geophysics</th>
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<tbody>
<tr>
<td><strong>Course Number and Title</strong></td>
</tr>
<tr>
<td>A. GEOPH 501 Properties and Processes in Geophysics I</td>
</tr>
<tr>
<td>B. GEOPH 502 Properties and Processes in Geophysics II</td>
</tr>
<tr>
<td>C. GEOPH 601 Graduate Orientation Mandatory for the first year on campus for all students</td>
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</table>

— continued —
Credit Requirements

All 30 credits must be taken for a letter grade, except for GEOPH 593 Thesis credit which will be graded Pass/Fail. On-campus geophysics graduate students are required to take GEOPH 598 Graduate Seminar for a letter grade each and every semester it is offered. Credit for GEOPH 598 does not count toward the total degree requirement of 30 credits. Transfer credits may not be used for requirements A, B, or D. A maximum of 9 transfer credits may be applied to meet requirement C except that up to 12 credits of requirement C may be satisfied with transfer credits from the University of Idaho and/or Idaho State University. Certain courses are ineligible for requirement C including courses applied to a previously obtained degree, courses used to meet admission requirements, and courses required to remedy background deficiencies.

The purpose of requirement C is to provide an opportunity for elective courses within geophysics or in an associated field of science or engineering; these are often courses which are appropriate to a student’s thesis or future employment goals. In all cases, the courses applied to meet requirement C must be approved by the student’s supervisory committee and by the Coordinator of the geophysics graduate program, and the majority of the 30-credit total requirement (i.e., at least 16 credits) must be earned in residence at Boise State.

Thesis Requirements

A thesis representing research of sufficient quality to warrant publication in a peer-reviewed journal is required of all candidates for the Master of Science in Geophysics. Actual publication is not required, but is held out as a goal for all graduate students. The research results must be presented at a formal public defense, and the final written thesis must be approved by the supervisory committee, by the Coordinator of the geophysics graduate program, and by the Dean of the Graduate College. In order to provide sufficient time for thorough evaluation of thesis research, a student should allow 3-6 months between preparation of the first draft of the thesis and the day of the formal defense. Frequent communication between the student, the supervisory committee, and the Coordinator is essential throughout this period.

Course Offerings

Additional course work will be required to receive graduate credit for undergraduate G courses.

GENSCI—GENERAL SCIENCE

GENSCI 501 HISTORY OF SCIENCE (3-0-3)(F/S). This is a survey of humanity’s efforts to understand the natural world. “Ancient Science” is presented as an introduction to the evolution of science since the 16th century. “Modern Science” is presented with emphasis on the development of modern scientific thought. Historical illustrations of the nature of scientific research in the evolution of science are presented.

GEOG—GEOGRAPHY

GEOG 560 INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS (2-2-3)(F/S). Designed for graduate students with no background in geographic information systems, or GIS, who wish to use these techniques in their research. Introduces the student to GIS concepts and principles. Lab fee. PREREQ: PERM/INST.

GEOG 561 REMOTE SENSING AND IMAGE PROCESSING (2-2-3)(F/S). Introduces students to acquisition, interpretation, and analysis of digital imagery. Applications presented in different contexts including forestry, geology, ecology, and urban planning. Lab exercises focus on digital image processing, georeferencing, and image interpretation and analysis. Lab fee. PREREQ: GEOG 560 or PERM/INST.

GEOG 562 GEOGRAPHIC INFORMATION ANALYSIS (2-2-3)(F/S). For graduate students with previous GIS experience or course work. Covers the operations and spatial analysis capabilities of a GIS, including spatial data models and data structure, spatial data management, and the spatial statistical analysis of geographic data. Lab fee. PREREQ: GEOG 560.
analyses used to solve various problems. Lab fee. PREREQ: GEOP 561 or PERM/INST.

GEOP 560 ELECTRICAL AND ELECTROMAGNETIC METHODS (2-2-3)(F/S). Comprehensive discussion of modern electrical and electromagnetic methods of subsurface investigation, including ground penetrating radar. Applications to exploration geology (mining and petroleum), engineering geology, hydrogeology, and crustal geology. PREREQ: GEOPH 303, GEOS 101 or PERM/INST.

GEOPH 605 INVERSION THEORY AND GEOPHYSICAL APPLICATIONS (3-0-3)(F). Application of the concepts of inverse theory to problems in geophysics and geophysical imaging. Continuous (integral) and discrete methods, with emphasis on the application of linear algebra, eigenvalue decomposition, basis functions, basis vectors, metrics, objective functions, transformation and representation, error analysis, linear and nonlinear inverse methods, gradient descent methods, grid searches, simulated annealing. Computer laboratory exercises. PREREQ: MATH 301. GEOPH 605; or PERM/INST.

GEOPH 610 GEOPHYSICAL METHODS IN GEOTECHNICAL ENGINEERING (2-2-3)(F/S). Application of geophysical methods to problems in geotechnical engineering including in situ measurement of the mechanical properties of soil and rock, depth and rippability of bedrock, prediction of seismic ground amplification, nondestructive testing of foundations and roadways, location of underground utilities, and detection of tunnels, caves, impending sinkholes or collapse features, and fracture zones. Scheduling offered based on student interest. PREREQ: CE 305, GEOPH 305, GEOP 605; or PERM/INST.

GEOPH 623 (CE 623)(GEOS 623) ADVANCED HYDROGEOLOGY (3-0-3)(F). Treatment of groundwater occurrence and flow, theory fundamental mechanisms, hydrologic parameters, flow regimes and systems, geologic controls. May be taken for CE, GEOPH, or GEOS credit, but not for more than one department. PREREQ: MATH 275, MATH 333, and GEOS 412 or GEOS 512 or GE 412 or CE 512, or PERM/INST.

GEOPH 624 (CE 624)(GEOS 624) APPLIED HYDROGEOLOGY (3-0-3)(S). Quantitative determination of hydrologic parameter values and groundwater flow conditions. Conceptual models and geologic context, boundary condition, analytical and numerical solution techniques, measurement methods, applications to engineering and environmental problems. May be taken for CE or GEOS; but not for more than one department. PREREQ: CE 263 or GEOPH 263 or GEOS 263 or PERM/INST.

GEOPH 630 ESTIMATION OF EARTHQUAKE GROUND MOTION (2-2-3)(F/S). Procedures for estimation of earthquake ground motion for applications such as the siting and design of critical facilities, city and land use

College of Arts and Sciences
Department of Geosciences

GEOPH 565 GRAVIMETRIC AND MAGNETIC METHODS (2-2-3)(F/S). Comprehensive discussion of modern gravimetric and magnetic methods of subsurface investigation. Applications to exploration geology (mining and petroleum), engineering geology, hydrogeology, and crustal geology. PREREQ: GEOP 303, GEOS 101 or PERM/INST.

GEOPH 566 (GEOS 566) ADVANCED GEOPHYSICS (3-0-3)(F). Additional emphasis on mechanics, heat transfer, and fluid mechanics. Electric flexure of the lithosphere, cooling of oceanic lithosphere, thermal and subsidence history of sedimentary basins, fracture heating on faults, thermal structure of subducting lithosphere, isotactic compensation, postglacial rebound, creeps in rocks, mantle convection. Project and report required. PREREQ: PERM/INST.
planning, building codes, and evaluation of insurance needs. Topics include seismicity, seismotectonic features, regional seismic attenuation, ground motion parameters, response spectra, local amplification, and estimation of uncertainty. Students interested in earthquake ground motion are also encouraged to consider GEOPH 510 as a related course. Scheduled offering based on student interest. PREREQ: GEOPH 525; GEOS 314, or PERM/INST.


GEOPH 641 (GEOS 641) GEODYNAMICS (3-0-3)(F/S). Identifies and quantitatively analyzes the processes governing the dynamic behavior of Earth at a variety of spatial and temporal scales. Offered upon sufficient student interest. May be taken for GEOPH or GEOS credit, but not both. PREREQ: PERM/INST.

GEOPH 650 DESIGN OF GEOPHYSICAL WASTE SITE CHARACTERIZATION PROGRAMS (2-2-3)(F/S). Application of design principles to geophysical characterization of sites for landfills and hazardous waste disposal. Discussion includes an introduction to governmental policies, procedures, and regulations. Scheduled offering based on student interest. PREREQ: CE 320, GEOPH 305, GEOPH 605, GEOS 412 or PERM/INST.

GEOPH 653 DESIGN OF GEOPHYSICAL MONITORING SYSTEMS FOR SURFACE OR SUBSURFACE PROCESSES (2-2-3)(F/S). Application of design principles to in situ geophysical monitoring systems for time-dependent surface or subsurface processes such as slope instabilities and migration of contaminants in groundwater. Scheduled offering based on student interest. PREREQ: GEOPH 305-305G, GEOPH 502, GEOPH 605; or PERM/INST.

GEOPH 680 SELECTED TOPICS IN GEOPHYSICAL DATA ANALYSIS (2-3-3)(F/S). Theory and implementation of one or more methods of geophysical data analysis. Methods are chosen based on class interest from the large number of modern processing, modeling, and statistical methods. Scheduled offering based on student interest. PREREQ: GEOPH 605 or PERM/INST.

GEOPH 693 DISSERTATION

GEOS—GEOSCIENCE

GEOS 451 G PRINCIPLES OF SOIL SCIENCE (3-0-3)(F/S)(Offered as justified). Major aspects of soil science, including the physical, chemical, and biological characteristics of soils, will be presented in the classroom lectures. Demonstration laboratory exercises and field trips will be required. PREREQ: Background in geology and chemistry.

GEOS 511 ADVANCED ENVIRONMENTAL GEOLOGY (3-0-3)(S). Land-use planning, techniques for investigation of surficial materials and water resources. Geologic hazards, surficial deposits and their engineering and hydrologic properties, ground and surface water, waste disposal. Term reports required, field trips required. PREREQ: GEOS 221 or PHYS 212.

GEOS 512 (CE 512) HYDROGEOLOGY (3-0-3)(F). The study of subsurface water and its relationship to surface water, the hydrologic cycle, and the physical properties of aquifer systems. Flow nets and flow through porous and fractured media. Methods of determination of aquifer characteristics and performance and groundwater modeling. May be taken for CE or GEOS credit, but not both. PREREQ: MATH 175.

GEOS 516 (CE 516)(GEOPH 516) HYDROLOGY (3-0-3)(S). Interdisciplinary earth science concerned with movement and occurrence of water. Watershed-based hydrologic phenomena including hydrologic cycle water-cycle analysis, precipitation, evapotranspiration, snow-snowmelt, streamflow, floods, routing and surface runoff events. Application of analytical techniques to solve water resource problems. May be taken for CE, GEOPH, or GEOS credit, but not in more than one department. PREREQ: MATH 175 or PERM/INST.

GEOS 517 (GEOPH 517) WATERSHED PROCESSES (3-0-3)(F). Investigation of the theoretical and empirical foundations of physical processes that govern the morphology of watersheds focusing on hillslope and fluvial processes. Our objective is to extract basic physical concepts from laws and equations that are used to describe and model various geomorphic phenomena. The course will involve a mix of lectures, student led discussions, and fieldwork. PREREQ: GEOS 313, MATH 175, and PHYS 213.

GEOS 518 HYDROLOGIC ANALYSIS (3-0-3)(F)(Alternate years). An overview of applied hydrologic techniques useful to scientists and engineers. Topics include hydrologic modeling, frequency analysis, and watershed assessment. PREREQ: GEOS 416 or PERM/INST.

GEOS 523 ADVANCED GEOMORPHOLOGY (3-0-3)(F/S). Study of Quaternary dating methods, applications of geomorphology to environmental problems, mapping and landscape analysis using GIS, soils, geomorphic response to Quaternary climate change, and climatic, tectonic and autocyclic controls on geomorphic processes. Field trips and a field-based research project required. PREREQ: PERM/INST.

GEOS 525 WHOLE EARTH GEOCHEMISTRY (3-0-3)(F/S). Basic tools and topics of modern geochemistry with an emphasis on solid-earth applications. Essentials of thermodynamics, kinetics, radioactivity and stable isotopes, and trace element chemistry necessary to study Earth processes in the crust, mantle, hydrosphere and atmosphere. PREREQ: PERM/INST.

GEOS 526 (CE 526) AQUEOUS GEOCHEMISTRY (3-0-3)(F/S). Basic tools and topics of aqueous geochemistry with an emphasis on low temperature processes in natural waters. Essentials of thermodynamics, kinetics, aqueous speciation, mineral-water interaction, and elemental cycling in the context of surficial earth processes and environmental challenges. May be taken for CE or GEOS credit, but not both. PREREQ: PERM/INST.

GEOS 530 (CE 530) VADOSE ZONE HYDROLOGY (3-0-3)(F). Laboratory and field methods for characterizing physical and hydraulic properties of soils, solution of variably saturated flow problems using analytical and numerical techniques. Computer simulations of flow and transport in variably saturated soils. May be taken for CE or GEOS credit, but not both. PREREQ: CE 412, or GEOS 412, or CE 512, or GEOS 512, or PERM/INST.

GEOS 531 GEOLOGY AND TECTONICS OF WESTERN NORTH AMERICA (3-0-3)(F/S). Class traces the timeline of processes and events that shaped the continental architecture of Western North America by integrating all relevant aspects of geology and geophysics. A research paper is required. PREREQ: Graduate standing or PERM/INST.

GEOS 533 (CE 533) CONTAMINANT TRANSPORT (3-0-3)(S). The fate and transport of dissolved solutes and non-aqueous phase liquids in groundwater systems. Students will analyze field data and develop conceptual models for contaminated sites. The role of engineers and hydrologists in environmental litigation will be addressed through case studies. May be taken for CE or GEOS credit, but not both. PREREQ: CE 412, or GEOS 412, or CE 512, or GEOS 512, or PERM/INST.

GEOS 540 TECTONICS SEMINAR (2-0-2)(F/S). Examination of specific orogenic systems, tectonic environments, and tectonic processes. PREREQ: GEOS 314 and 323, or PERM/INST.

GEOS 541 PLATE TECTONICS (3-0-3)(F/S)(On demand). Reviews and clarifies geologic and geophysical foundations of plate tectonic theory. Characteristics of modern tectonic environments and their use in interpreting the Earth's geologic history. PREREQ: PERM/INST.

GEOS 542 CURRENT LITERATURE IN STRUCTURE AND TECTONICS (1-0-1)(F/S). Examination, presentation, and discussion of current literature in structure and tectonics. PREREQ: GEOS 314 or PERM/INST.

GEOS 552 NATURE OF SCIENCE (3-0-3)(F/S). Explores basic questions of how the Earth works from the perspective of the scientist. Emphasis on the conceptual approach to science. Interactive lectures and short writing assignments. Open to students with varied backgrounds. PREREQ: GEOS 102.

GEOS 560 VOLCANOLOGY (3-0-3)(F)(Alternate years). Study of volcanic processes and deposits, with focus on advances in volcanology since 1900 eruption of Mt. St. Helens. Course content aimed at students desiring to improve skills in working with volcanic rocks in the context of the geologic record, as well as students interested in volcanic hazards assessment. Field trip required. PREREQ: Graduate standing in geosciences or PERM/INST.

GEOS 561 EARTH SCIENCE TEACHING TECHNIQUES (3-0-3 or 4-0-4) (F/S). This course is a study of the objectives, methods, and materials of instruction in Earth Sciences. Emphasis will be placed on the preparation and presentation of lectures, laboratory exercises and field trips. This course provides the student with internship experience in the laboratory and lecture classroom. PREREQ: Graduate status or PERM/INST.

GEOS 570 (GEOG 570) EARTH SYSTEM SCIENCE AND GLOBAL WARMING (3-0-3)(F/S). Survey of interactions among physical, bio-geochemical processes involved in climate and climate feedback. Explore
Quantitative determination of hydrologic parameter values and geologic controls. May be taken for CE, GEOPH, or GEOS credit, but not both. PREREQ: PERM/INST.

GEOS 580 SELECTED TOPICS IN WATERSHED HYDROLOGY (1-3 credits)(F). Detailed investigation of select hydrologic processes and applications. Topics will vary each year and may include runoff generation, snow hydrology, watershed management, hydrologic modeling, sediment transport, land-use hydrology and field methods among others. Repeatable for credit. PREREQ: PERM/INST.

GEOS 591 PROJECT (0-3 to 0-6).

GEOS 593 THESIS (0-3 to 0-5).

GEOS 596 INDEPENDENT STUDY (0-1 to 0-4).

GEOS 597 SPECIAL TOPICS (V-V-V)

GEOS 598 GRADUATE SEMINAR (0-1 to 0-3).

GEOS 599 (GEOPH 599) RESEARCH PROBLEMS (0-3 to 0-5).

GEOS 600 ASSESSMENT [Comprehensive Examination](0-0-1)

GEOS 601 (GEOPH 601) GRADUATE ORIENTATION (2-0-2)(F). General orientation to the graduate program in Geology and Geophysics. Introduction to the requirements of the programs and development of technical writing skills through the preparation of abstracts, proposals for research funding, and thesis proposals. May be taken for GEOPH or GEOS credit, but not both. PREREQ: PERM/INST.

GEOS 605 TOPICS IN GEOMORPHOLOGY (3-0-3)(F/S). Topical investigation of geomorphic processes, including the influences of geology, hydrology, biology, climate, tectonics, and time on landscape evolution and ecosystems development. Includes field investigations. May be repeated for credit. PREREQ: PERM/INST.

GEOS 607 PALEOClimATOLOGy AND PALEoCEANOGRAphY (3-0-3)(F/S). Will survey the driving forces of atmospheric and oceanic circulation, and how this information can be retrieved from the geologic record from physical, biotic, trace element, and isotopic proxies. PREREQ: PERM/INST.

GEOS 611 BASIN ANALYSIS (3-0-3)(S). Study of the formation and evolution of sedimentary basins. Emphasis on the concepts and qualitative tools necessary to understand how sedimentary basins are formed, their specific stratigraphic architectures, and modern approaches to correlation. PREREQ: PERM/INST.

GEOS 615 TIME-SERIES ANALYSIS OF THE GEOLoGIC RECORD (3-0-3)(F/S). Analysis of modern methods for the quantification of time in the geologic record, including bio-chemo- magneto- and physical stratigraphy, high precision geochronology, and orbital tuning. Application to elucidating the records of tectonic reconstruction, paleobiological evolution, and paleoclimate change. PREREQ: PERM/INST.

GEOS 623 (CE 623)(GEOPH 623) ADVANCED HYDROGEOLOGY (3-0-3)(F). Treatment of groundwater occurrence and flow, theory fundamental mechanisms, hydrologic parameters, flow regimes and systems, geologic controls. May be taken for CE, GEOPH, or GEOS credit, but not for more than one department. PREREQ: MATH 275, MATH 333, and GEOS 412 or GEOS 512 or CE 412 or CE 512, or PERM/INST.

GEOS 624 (CE 624)(GEOPH 624) APPLIED HYDROGEOLOGY (3-0-3)(S). Quantitative determination of hydrologic parameter values and groundwater flow conditions. Conceptual models and geologic context, boundary condition, analytical and numerical solution techniques, measurement methods, applications to engineering and environmental problems. May be taken for CE, GEOPH, or GEOS credit, but only in one department. PREREQ: CE 623 or GEOPH 623 or GEOS 623 or PERM/INST.

GEOS 636 STABLE ISOTOPE GEOCHEMISTRY (3-0-3)(F/S). Comprehensive overview of theory, methods, and applications of stable isotope geochemistry to a wide range of earth science problems. PREREQ: PERM/INST.

GEOS 638 RADIOGENIC ISOTOPE GEOCHEMISTRY AND GEOCHRONOLOGY (3-0-3)(F). Comprehensive overview of theory, methods, and applications of radiogenic isotope geochemistry and geochronology to a wide range of earth science problems. PREREQ: PERM/INST.

GEOS 641 (GEOPH 641) GEODYNAMICS (3-0-3)(F/S). Identifies and quantitatively analyzes the processes governing the dynamic behavior of Earth at a variety of spatial and temporal scales. May be taken for GEOPH or GEOS credit, but not both. PREREQ: PERM/INST.

GEOS 643 ADVANCED STRUCTURAL GEOLOGY (2-3-3)(F)(Alternate years). Geometric, kinematic and dynamic analysis of plutonic rocks and metamorphic tectonites. Structural elements in plutons, their formation and interpretation as indicators of the tectonic environment during emplacement. Mesoscopic and microscopic study of rock fabrics, the mechanisms and processes of their formation and deformation, and their use as kinematic and strain indicators. PREREQ: PERM/INST.

GEOS 645 PHYSICS AND CHEMISTRY OF MOUNTAIN BUILDING (3-0-3)(F/S). An introduction to modern methods for analyzing the pressure-temperature-time paths and histories of metamorphic terrains comprising modern and ancient mountain belts; subjects to include quantitative geothermobarometry, chemical diffusion and closure temperature theory, geochronology and thermochronology, the thermal structure and evolution of mountain belts. PREREQ: PERM/INST.

GEOS 647 ADVANCED IGNEOUS PETROLOGY (3-0-3)(S)(Odd years). A study of igneous rocks with emphasis on their origin and the processes responsible for their diversity. Exercises will make use of the petrographic microscope and the departmental computer facilities. A field trip is required. PREREQ: PERM/INST.

GEOS 651 BIOGEOCHEMICAL CYCLES (3-0-3)(F/S). A detailed investigation of the global cycling of elements and water and the coupled physical, chemical and biological processes and controls. PREREQ: PERM/INST.

GEOS 653 GROUNDWATER MICROBIOLOGY (3-0-3)(F/S). An exploration of the interface of microbiology and hydrogeology and aqueous geochemistry with an emphasis microbial processes and ecology and redox transformations produced by natural and contaminant-related disequilibrium in the subsurface. PREREQ: PERM/INST.

GEOS 655 COUPLED BIOGEOCHEMICAL KINETICS AND TRANSPORT (3-0-3)(F/S). A detailed investigation of the smaller scale (kilometer to micrometer) flow of elements and water through coupled physical, chemical and biological processes, with an emphasis on the interplay of mass and energy transfer rates and biogeochemical kinetic constraints. PREREQ: PERM/INST.

GEOS 657 REACTIVE TRANSPORT MODELING (3-0-3)(F/S). The application of geochemical and reactive transport computer codes to coupled flow and reactive transport problems with an emphasis on subsurface systems. PREREQ: PERM/INST.

GEOS 693 DISSERTATION (0-V-V). Original research and analysis of results culminating in the preparation of a dissertation. (Pass/Fail.)

Idaho State University Courses:

- GEOS 648 Research Problems
- GEOS 650 Thesis
Department of Mathematics

Chair: Douglas Bullock
Math/Geosciences Building, Room 235, Mail Stop 1555
Telephone (208) 426-1172
FAX (208) 426-1356
http://math.boisestate.edu
e-mail: office@math.boisestate.edu

Graduate Faculty: Liljana Babinkostova, Stephen Brill, Douglas Bullock, Alex Feldman, Stefan Geschke, Stephen Grantham, Jens Harlander, Alan Hausrath, Randall Holmes, Uwe Kaiser, Otis Kenny, Charles Kerr, Margaret Kinzel, Kyungduk Ko, Jaechoul Lee, Jodi Mead, Leming Qu, Kathleen Rohrig, Marion Scheepers, Mary Jarratt Smith, Sharon Walen, Grady Wright, Barbara Zubik-Kowal

Graduate Degrees Offered
- Master of Science in Mathematics
- Master of Science in Mathematics Education

Master of Science in Mathematics

Graduate Program Coordinator: Jodi Mead
Math/Geosciences Building, Room 218B, Mail Stop 1555
Telephone (208) 426-2432
e-mail: mead@math.boisestate.edu

General Information

The Master of Science in Mathematics degree provides a solid foundation in the theoretical and applied aspects of mathematics and the opportunity for concentration in an area of special interest. Students complete a required core sequence in mathematics and choose electives from a selection of graduate courses that reflect faculty expertise. The choice of culminating activity depends on student goals and may be a comprehensive examination, a project, or a thesis. Students interested in applying for a graduate teaching or research assistantship should contact the graduate program coordinator for further information.

Application and Admission Procedures

An applicant must follow the general application procedures for degree-seeking students (see the Graduate Admission Regulations section of this catalog) and must 1) arrange to have three letters of recommendation submitted directly by the references to the graduate program coordinator and 2) submit GRE general test scores. Applicants whose native language is not English must submit TOEFL scores and may be interviewed if applying for a graduate teaching assistantship. Once the file for an applicant is complete, it will be evaluated by the Mathematics Graduate Committee and an admission recommendation (regular, provisional, or denial) will be forwarded to the dean of the Graduate College who will make the final admission decision and notify the applicant.

Conditions for Admission

The conditions for admission are the minimum admission requirements of the Graduate College (see the Graduate Admission Regulations section of this catalog) where the required baccalaureate degree must be in mathematics or a closely related field involving substantial course work in mathematics. These conditions are necessary for admission to the program but do not guarantee admission.

Supervisory Committee

Each admitted student intending to do a thesis will be assigned a three-member supervisory committee consisting of a major advisor who serves as chair and two additional members. The role of the supervisory committee is to guide the student in all aspects of his or her graduate study. All other admitted students will be assigned an advisor who carries out the same role. The Mathematics Graduate Committee maintains oversight of the program by monitoring the academic progress of each student and the performance of the graduate teaching assistants.

Degree Requirements

The Master of Science in Mathematics degree requires completion of a two-course graduate core sequence in mathematics, a prescribed number of additional graduate courses, and a culminating activity that may be a comprehensive examination, a project, or a thesis. An individual program must include at least six credits from the following list of courses: 502, 506, 507, 509, 512, 537, 566, 572, 573, 574. All courses must be approved for application to the degree requirements by the supervisory committee working within constraints developed by the Mathematics Graduate Committee.

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MATH 514 Advanced Calculus</td>
<td>4</td>
</tr>
<tr>
<td>MATH 515 Advanced Analysis</td>
<td>3</td>
</tr>
<tr>
<td>Additional graduate courses and a culminating activity</td>
<td>23-24</td>
</tr>
<tr>
<td>Comprehensive Examination</td>
<td>1</td>
</tr>
<tr>
<td>Project</td>
<td>3</td>
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<tr>
<td>Thesis</td>
<td>6</td>
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<tr>
<td>TOTAL</td>
<td>30-31</td>
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</table>

Comprehensive Examination

The comprehensive examination consists of two written two-hour tests (one test covering the content of MATH 514 and MATH 515 and one test covering the content of another two related courses) and a one-hour oral test over material drawn from any of the courses completed by the student.

Project

The project must be related to the internship experience and must be presented and discussed at a public oral presentation.

Thesis

The thesis must be an original contribution by the student to mathematical knowledge. The student must present and defend the thesis research at a final oral examination.
## General Information

The curriculum of the Master of Science in Mathematics Education is designed to enhance the preparation of middle school, junior high school, and high school mathematics teachers. Since high quality preparation of teachers requires the integration of mathematical content and pedagogy, courses within the program are designed to extend candidates’ understanding of both mathematical content and issues related to the teaching and learning of that content. Because of the varied backgrounds of the candidates, a student’s course of study will be individually designed in consultation with the graduate committee to expand his or her existing knowledge and to assist the candidate in situating his or her particular grade-level content within the larger body of mathematics.

Because of the differing goals of candidates for the degree, there are two options available to students. The High School option is available to all candidates who meet admission requirements and the Junior High School option, directed primarily at junior high school and middle school teachers, is available to all candidates meeting admission requirements except those holding Standard Certification in Mathematics.

This degree will not lead to certification in mathematics. Persons seeking secondary Idaho teaching certification should consult with the Associate Chair of the Department of Mathematics to design a program leading to certification.

## Application and Admission Requirements

An applicant should follow the general application procedures for graduate degree-seeking students (see the Graduate Admission Regulations section of this catalog). A candidate’s letter of application should indicate the desired program and area of specific interest within mathematics education. In addition, an applicant must arrange to have three letters of recommendation submitted directly by the references to the Graduate Program Coordinator. Once the applicant’s file is complete, it will be evaluated by the Mathematics Education Committee and an admission recommendation (regular, provisional, or denial) will be forwarded to the Dean of the Graduate College. Provisional admission may be granted to students whose background is deemed deficient. In the case of a recommendation for provisional admission, the Committee will also recommend the stipulations that must be satisfied by the student to advance to regular status. The Dean will make the final admission decision and notify the applicant and the Committee.

### Conditions for Admission

The conditions for admission are the minimum admission requirements of the Graduate College (see the Graduate Admission Regulations section of this catalog) where the required baccalaureate degree must be in mathematics secondary education, mathematics, elementary education or a closely related field. These conditions are necessary for admission but do not guarantee admission.

### Supervisory Committee

The Mathematics Education Committee will assign each admitted student intending to do a thesis, upon consulting with the student, a three-member supervisory committee consisting of an advisor who will serve as chair and two additional members. The role of the supervisory committee is to guide the student in all aspects of his or her graduate study, including choice of course work to meet the degree requirements, and design, execution, and final evaluation of the thesis. All other admitted students will be assigned an advisor who carries out the same role. The Mathematics Education Committee maintains oversight of the program by monitoring the academic progress of each student.

### Degree Requirements

General M. S. requirements as stated in Boise State University’s Graduate Catalog apply. Any transfer credits, whether from another university or from another graduate program at Boise State University, must be approved by the Mathematics Education Committee. A 400/500 cross-listed course cannot apply towards the degree if already taken for an undergraduate degree.

The Master of Science in Mathematics Education requires coursework and a culminating experience consisting of either a thesis or a project.

#### Thesis Option

The thesis option is for those students particularly interested in research and who may want to pursue a doctorate in the future. It requires 30-33 graduate credits comprised of at least 27 course credits and 3-6 credits of thesis work. The thesis must be an original contribution by the student to the state of mathematics education or mathematical knowledge. Each student choosing the thesis option must pass a public oral defense of the completed thesis.

#### Project Option

The project option is designed for most practicing teachers. It requires 30-33 graduate credits comprised of at least 27 course credits and a 3-credit project. Each student choosing the project option must give a public oral presentation about the completed project.

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<thead>
<tr>
<th>Master of Science in Mathematics Education</th>
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<tbody>
<tr>
<td><strong>Course Number and Title</strong></td>
<td><strong>Credits</strong></td>
</tr>
<tr>
<td>Required Mathematics Education Courses:</td>
<td></td>
</tr>
<tr>
<td>MATHED 510 Mathematics Curriculum 7-12</td>
<td>2</td>
</tr>
<tr>
<td>MATHED 511 Survey of Research in Mathematics Education</td>
<td>2</td>
</tr>
<tr>
<td>MATHED 570 Advanced Mathematics Through Technology</td>
<td>3</td>
</tr>
<tr>
<td>Required Education Courses:</td>
<td></td>
</tr>
<tr>
<td>ED-CIFS 503 Fundamentals of Educational Research</td>
<td>3</td>
</tr>
</tbody>
</table>

All other courses to be taken in the degree program will be planned by the student and the graduate committee. It is expected that this schedule of courses will extend the candidate’s mathematical preparation; therefore, content for which the candidate has received prior credit toward a degree may generally not be repeated.

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— continued —
Choose ONE of the following options: 6
High School Option

MATH Content Courses:
Courses with a MATH prefix less than 500 require the G option

Junior High School Option

MATH OR MATHED Content Courses:
Must include at least one course with MATH prefix, G option permitted. Must include one of:
MATH 523 The Teaching of Algebra ...................... 2
MATH 524 The Teaching of Geometry .................... 2

All candidates who do not have content in their previous education equivalent to MATH 254, MATH 360, or MATH 361 must take a statistics course equivalent to one of these. (This requirement is in addition to the required 6 credits of MATH.)

Free Electives: MATHED, Education, or another area (MATH G option permitted) 11
Project or Thesis in MATH or MATHED 3-6
TOTAL 30-33

Note: The total number of G credits may be no more than one-third of the total credits.

Course Offerings

MATH—MATHEMATICS

Additional work will be required to receive graduate credit for undergraduate G courses.

Graduate offerings in mathematics are limited to those courses for which there is sufficient student demand as determined by the Department of Mathematics.

MATH 490G MATHEMATICS IN SECONDARY SCHOOLS (4-0-4)(F). Objectives, content, and methods of secondary school mathematics programs. PREREQ: MATH 270 and six hours of mathematics completed at or above the 300-level or PERM/INST.

MATH 501 FOUNDATIONS OF MATHEMATICS (3-0-3)(SU). The language and methods of reasoning used throughout mathematics, and selected topics in discrete mathematics. PREREQ: MATH 143 or MATH 147.

MATH 502 LOGIC AND SET THEORY (3-0-3)(F)(Odd years). This course is structured as three five-week components: formal logic, set theory, and topics to be determined by the instructor. The logic component will include: formalization of language and proof, the completeness theorem, the Lowenheim-Skolem theorem. The set orderings, ordinals, the transfinite recursion theorem, the Axiom of Choice and its equivalents. PREREQ: MATH 314.

MATH 503 ADVANCED LINEAR ALGEBRA (3-0-3)(S). Introduces the concepts of linear algebra from a theoretical perspective. Topics include: Vector spaces and linear maps, dual vector spaces and quotient spaces, eigenvalues and eigenvectors, diagonalization, inner product spaces, adjoint transformations, orthogonal and unitary transformations, Jordan normal form. PREREQ: MATH 314.

MATH 505 ABSTRACT ALGEBRA (3-0-3)(F)(Odd years). Topics in group theory, ring theory and field theory with emphasis on finite and solvable groups, polynomials and factorization, extensions of fields. PREREQ: MATH 301 and MATH 305.

MATH 506 ADVANCED ALGEBRA (3-0-3)(S)(Even years). The study of algebraic topics taken from mappings, semigroups, groups, Sylow Theorems, group actions, rings, ascending and descending chain conditions, polynomial rings, fields, field extensions, Galois theory, Modules, Tensor products. PREREQ: MATH 405 or MATH 505.

MATH 507 ADVANCED NUMBER THEORY (3-0-3)(F)(Even years). Arithmetic functions, Mobius Inversion, Fundamental algorithm, Prime numbers, Factoring, quantification of number theoretic results. PREREQ: MATH 306.

MATH 509 SYMMETRIC KEY CRYPTOGRAPHY (3-0-3)(S)(Even years). One-way function, Hash function, pseudo-random number generators, DES, Rijndael and other symmetric key cryptosystems. PREREQ: COMPSCI 367 or MATH 307 or MATH 308.

MATH 511 INTRODUCTION TO TOPOLOGY (3-0-3)(F)(Even years). Sets, metric and topological spaces, product and quotient topology, continuous mappings, connectedness and compactness, homeomorphisms, fundamental group, covering spaces. PREREQ: MATH 314.

MATH 512 ADVANCED TOPOLOGY (3-0-3)(S)(Odd years). Introduction into concepts of algebraic and geometric topology: homotopy and homology groups, cohomology, manifolds, duality theorems, special topics. PREREQ: MATH 411 or MATH 511 or PERM/INST.

MATH 514 ADVANCED CALCULUS (4-0-4)(F). Introduction to fundamental elements of Analysis on Euclidean spaces including the basic differential and integral calculus. Topics include: Infinite series, sequences and series of function, uniform convergences, theory of integration, implicit function theorem and applications. PREREQ: MATH 275, MATH 301, and MATH 314.

MATH 515 ADVANCED ANALYSIS (3-0-3)(S). Introduction to fundamental abstract elements of Analysis. Topics include: metric and normed spaces, completeness, inner product spaces, fundamental theorems for normed and Banach spaces, Lebesgue integral, applications. PREREQ: MATH 414 or MATH 514.

MATH 526 COMPLEX VARIABLES (3-0-3)(S)(Odd years). Complex numbers, functions of a complex variable, analytic functions, infinite series, infinite products, integration, proofs and applications of basic results of complex analysis. Topics include the Cauchy integral formulas, the residue theorem, the Riemann mapping theorem and conformal mapping. PREREQ: MATH 275.


MATH 536 PARTIAL DIFFERENTIAL EQUATIONS (3-0-3)(S)(Even years). Theory of partial differential equations and boundary value problems with applications to the physical sciences and engineering. Detailed analysis of the wave equation, the heat equation, and Laplace’s equation using Fourier series and other tools. PREREQ: MATH 333 or MATH 433 or MATH 533.

MATH 537 APPLIED MATHEMATICS (3-0-3)(S). Survey of mathematical models for problems in the applied sciences and engineering, coming from areas such as fluid dynamics, solid mechanics, and electromagnetism. Ordinary and partial differential equations modeling physical problems will be studied. Mathematical techniques may include perturbation analysis, calculus of variations, stability theory and simple numerical methods. Programming assignments. PREREQ: MATH 275 and MATH 333.

MATH 541 HISTORY OF MATHEMATICS (3-0-3)(F)(S). The course is designed for mathematics teachers in the secondary school. The course consists of two parts: the first part traces the development of algebra, geometry, analytic geometry and calculus to the 19th century; the second part gives a brief introduction to, and history of, some of the developments in mathematics during the last century. May not be used for the Master’s degree in Mathematics. PREREQ: PERM/INST.


MATH 562 PROBABILITY AND STATISTICS (3-0-3)(F). Provides a solid foundation in the mathematical theory of statistics. Topics include probability theory, distributions and expectations of random variables, transformations of random variables, moment-generating functions, basic limit concepts and brief introduction to theory of estimation and hypothesis testing: point estimation, interval estimation and decision theory. PREREQ: MATH 275, MATH 301, and MATH 311.

MATH 564 MATHEMATICAL MODELING (3-0-3)(F)(SU). Introduction to mathematical modeling through case studies. Deterministic and probabilistic models: optimization. Examples will be drawn from the physical, biological, and social sciences. A modeling project will be required. May not be used for the master’s degree in Mathematics. PREREQ: MATH 361 or PERM/INST.

MATH 566 NUMERICAL ANALYSIS II (3-0-3)(S). Techniques for finding approximate solutions of ordinary and partial differential equations using MATLAB or other technical computing environment. PREREQ: MATH 565 or PERM/INST.

MATH 571 DATA ANALYSIS (3-0-3)(S)(Even years). Provides an application of the various disciplines in statistics to data analysis, introduction to statistical software, demonstration of interplay between probability models and statistical inference. Topics include introduction to concepts of random sampling and statistical inference, goodness of fit tests for model adequacy, outlier detection, estimation and testing hypotheses of means and variances, analysis of variance, regression analysis and contingency tables. PREREQ: MATH 361.

MATH 572 COMPUTATIONAL STATISTICS (3-0-3)(F)(Even years). Introduction to the trend in modern statistics of basic methodology supported by state-of-art computational and graphical facilities, with attention to statistical theories and complex real world problems. Includes: data visualization, data partitioning and resampling, data fitting, random number generation, stochastic simulation, Markov chain Monte Carlo, the EM algorithm, simulated annealing, model building and evaluation. A statistical computing environment will be used for students to gain hands-on experience of practical programming techniques. PREREQ: MATH 361.

MATH 573 TIME SERIES ANALYSIS (3-0-3)(F)(Odd years). Introduction to time series analysis with an emphasis on application to interdisciplinary projects using SAS/ETS; autoregressive-moving average models, seasonal models, model identification, parameter estimation, model checking, forecasting, estimation of trends and seasonal effects, transfer function models, and spectral analysis. PREREQ: MATH 361.

MATH 574 LINEAR MODELS (3-0-3)(S)(Odd years). Introduction to the Gauss-Markov model with use of relevant statistical software. Includes linear regression, analysis of variance, parameter estimation, hypothesis testing, model building and variable selection, multicollinearity, regression diagnostics, prediction, general linear models, split plot designs, repeated measures analyses, random effects models. PREREQ: MATH 361.

MATH 579 TEACHING COLLEGE MATHEMATICS (1-0-1). Development of skills in the teaching of college mathematics. Effective use of class time, syllabus and test construction, learning styles, and disability issues. Lecturing, use of group work, and other teaching techniques. (Pass/Fail.) PREREQ: PERM/INST.

SELECTED TOPICS SERIES:

MATH 580 TOPICS IN SET THEORY.
MATH 581 TOPICS IN LOGIC.
MATH 582 TOPICS IN TOPOLOGY.
MATH 583 TOPICS IN COMPUTATIONAL MATHEMATICS.
MATH 584 TOPICS IN COMPUTATIONAL ALGEBRA.
MATH 585 TOPICS IN CRYPTOLOGY.
MATH 586 TOPICS IN STATISTICS.
MATH 587 TOPICS IN DIFFERENTIAL EQUATIONS.
MATH 588 TOPICS IN INVERSE THEORY.

MATH 598 SEMINAR IN MATHEMATICS (variable credit). The content will vary within a format of student presentation and discussion of relatively advanced mathematical topics selected from texts or mathematical journals. This will not be a seminar in mathematics education.

MATHED—MATHEMATICS EDUCATION

MATHED courses are designed to provide extra experience in mathematics for practicing teachers. They may be used to meet course requirements for master’s degrees in education. They are not available for undergraduate credit.

MATHED 510 MATHEMATICS CURRICULUM 7-12 (2-0-2)(SU). The history of the 7-12 mathematics curriculum; content, special problems, and trends in mathematics programs; organization of the curriculum. Study of reports and recommendations; curriculum development projects. PREREQ: At least one year’s experience teaching in middle or secondary school mathematics.

MATHED 511 SURVEY OF RESEARCH IN MATHEMATICS EDUCATION I (2-0-2)(SU). Survey of current research in and discussion of issues relating to the teaching and learning of mathematics. PREREQ: Teaching certification or PERM/INST.

MATHED 512 SURVEY OF RESEARCH IN MATHEMATICS EDUCATION II (2-0-2)(SU). Continuation of MATHED 511. PREREQ: MATHED 511.

MATHED 523 THE TEACHING OF ALGEBRA (2-0-2)(SU). Contemporary approaches to teaching secondary school algebra; treatment of selected topics in secondary school algebra; methods and materials; research relevant to the teaching of algebra. PREREQ: MATH 147 or MATH 257 or teaching certification in mathematics.

MATHED 524 THE TEACHING OF GEOMETRY (2-0-2)(SU). Contemporary approaches to teaching secondary school geometry; treatment of selected topics in geometry; methods and materials; research relevant to the teaching of geometry. PREREQ: MATH 147 or MATH 257 or teaching certification in mathematics.

MATHED 525 THE TEACHING OF CALCULUS (2-0-2)(SU). Contemporary approaches to teaching secondary school calculus; use of symbolic algebra and graphing software; treatment of selected topics in calculus including limit, derivative, and integral. PREREQ: MATH 175.

MATHED 557 ADVANCED PROBLEM SOLVING AND NUMBER THEORY FOR TEACHERS (3-0-3)(SU). Advanced study of number systems from whole numbers through the reals with an emphasis on problem solving and number theory. The course will make use of appropriate models to support the development of the content. This course is appropriate for teachers seeking to strengthen and extend their mathematical knowledge. PREREQ: MATH 147 or MATH 257 or teaching certification in mathematics.

MATHED 558 ADVANCED GEOMETRY AND PROBABILITY FOR TEACHERS (3-0-3)(SU). In-depth study of geometry and probability, including work with mathematical models. This course is appropriate for teachers seeking to strengthen and extend their mathematical knowledge. PREREQ: MATH 147 or MATH 257 or teaching certification in mathematics.

MATHED 570 ADVANCED MATHEMATICS THROUGH TECHNOLOGY (3-0-3)(SU). This course focuses on selecting and using appropriate technology in teaching P-12 mathematics and places an emphasis on instructional design and implementation of technology specific to the mathematical classroom. This course is appropriate for teachers seeking to strengthen and extend their mathematical knowledge. PREREQ: MATH 147 or MATH 257 or teaching certification in mathematics.

MATHED 598 SEMINAR IN MATHEMATICS EDUCATION (2-0-2)(SU). The content will vary within a format of student presentation and discussion of relatively advanced mathematics education topics selected from texts or journals. This will not be a seminar in mathematics.
Department of Music

Chair: Mark Hansen
Morrison Center for the Performing Arts, Room C-100, Mail Stop 1560
Telephone (208) 426-1596
FAX (208) 426-1771
www.boisestate.edu

Graduate Faculty: John B. Baldwin, Jeanne M. Belfy, Lynn Berg, J. Wallis Bratt, Marcellus Brown, James Andrew Goodman, Mark Hansen, James Jirak, Linda Kline-Lamar, David Mathie, Nicole Molumby, Leslie Moreau, Del Parkinson, Craig Purdy, Laura Rushing-Raynes, Michael Samball, David Saunders,

Adjunct Graduate Faculty: Ted Apel

Graduate Degrees Offered
- Master of Music, Music Education
- Master of Music, Performance
- Master of Music, Pedagogy

Master of Music
Graduate Program Coordinator: Jeanne Belfy
Morrison Center for the Performing Arts, Room C-309, Mail Stop 1560
Telephone (208) 426-1216
e-mail: jbelfy@boisestate.edu

General Information
The Master of Music is a professional degree in music with emphasis in either 1) music education 2) performance or 3) pedagogy. The emphasis in education is designed to meet the needs of music education specialists who work in the public school system, grades K-12, or who aspire to further graduate study and teaching in music education. Music education students take courses specifically related to research and current trends, history, and philosophy in music education, as well as graduate courses in music theory and history. They are also required to progress in an applied area and participate in a music ensemble. Declaring an area of emphasis of either elementary, choral, or secondary instrumental, students structure elective credits to reflect their area, and conclude their studies with a culminating activity related to their emphasis.

Performance and pedagogy majors seek to improve their performance and studio teaching skills, possibly in preparation for a performance career, further graduate study, private studio teaching, and/or collegiate applied teaching. Their course work centers around applied study, music theory and history, and pedagogy and literature courses, and culminates in a graduate recital or other appropriate culminating project.

The Department offers four full graduate teaching and service assistantships, and a flexible number of additional assistantships are available through the Blue Thunder Marching Band program. A cooperative program for string students exists with the Boise Philharmonic Orchestra. Contact the Graduate Program Coordinator for further information.

Application and Admission Requirements
Admission will be granted to applicants who hold a Bachelor’s degree in music (BM, BA, or BS with a music major) from an accredited college or university, and who give promise of meeting the standards set by the Department of Music and the University. Students seeking Music Education Emphasis must possess the B.M.Ed. or equivalent with certification, and submit a teaching portfolio to include a formal writing sample, lesson plan samples including assessment tools, program sample, teaching video, and three letters of reference from professionals who are familiar with the applicant’s teaching. Students seeking admission to the Performance or Pedagogy Emphases must perform a satisfactory audition, in person, before the performance faculty of his/her major performance area (keyboard, winds, strings, etc.). Audition details are available from the Department of Music.

Before a graduate student can be admitted to Regular Status, predictive examinations in music history and music theory must be completed. The purpose of predictive examinations is to determine the student’s strengths and weaknesses so that an individual academic program can be formulated that will best serve the student’s needs. Any course used to remove deficiencies does not count toward the degree. A student who has deficiencies will be granted Provisional Status in the graduate program. When deficiencies have been removed, the student may then seek Regular Status. A description of material covered on these examinations is available from the Department of Music.

Degree Requirements

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduation Requirements: 33-36 credits minimum, stipulated below, are required for graduation. The actual number of credit hours may vary depending on the needs of individual students as determined by the results of predictive examinations. Candidates are required to establish an area of emphasis in one of the following: elementary, choral, or instrumental music education.</td>
<td></td>
</tr>
<tr>
<td>1. Core Courses:</td>
<td></td>
</tr>
<tr>
<td>MUS 503 Introduction to Music Research</td>
<td>3</td>
</tr>
<tr>
<td>MUS 570 New Developments in Music Education</td>
<td>3</td>
</tr>
<tr>
<td>MUS 576 History and Philosophy of Music Education</td>
<td>3</td>
</tr>
<tr>
<td>2. Non-Music Education Courses:</td>
<td></td>
</tr>
<tr>
<td>*Music Theory</td>
<td>3</td>
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<tr>
<td>*Music History</td>
<td>3</td>
</tr>
<tr>
<td>Private Music Lessons (2 semesters minimum)</td>
<td>4</td>
</tr>
<tr>
<td>Music Ensemble</td>
<td>2</td>
</tr>
<tr>
<td>3. Music Electives:</td>
<td></td>
</tr>
<tr>
<td>A. 6 credits in the student’s area of emphasis:</td>
<td>6</td>
</tr>
<tr>
<td>elementary general music, choral music, or instrumental music. No more than four (4) workshop elective credits, of which one may be a music conference credit, may be applied towards the degree.</td>
<td></td>
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<tr>
<td>B. 3 credits additional approved electives in music</td>
<td>3</td>
</tr>
</tbody>
</table>

--- continued ---
### Master of Music, Music Education (continued)

4. Comprehensive Examination:
   A written comprehensive examination in music must be completed prior to completion of the student’s culminating activity. This exam will be tailored to each student’s graduate course work. The comprehensive exam may be taken after the completion of 27 hours of required course work to include 6 credits of the core courses and the 3 hours each in music history and music theory.

5. Oral Examination:
   If needed, an oral examination relating to the written comprehensive examination or to the culminating activity may be requested at the discretion of the candidate’s Committee.

6. Culminating Activity (3-6 credits from one of the choices listed below):

   - A. MUS-APL 544 Lecture-Recital ....................................... 3
   - B. MUS 591 Project ............................................................. 3
   - C. MUS 593 Thesis ............................................................. 6

   **TOTAL 3-6**

   *All students must take a minimum of one history or theory course that is designated graduate-only. Piano and voice majors must take a minimum of two.

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### Master of Music, Performance (continued)

#### Graduation Requirements:
32 credits minimum, stipulated below, are required for graduation. The actual number of credit hours may vary, depending on the needs of individual students as determined by the results of predictive examinations.

<table>
<thead>
<tr>
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<tbody>
<tr>
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<td></td>
</tr>
<tr>
<td>MUS 503 Introduction to Music Research</td>
<td>3</td>
</tr>
<tr>
<td>MUS 557 Music Literature of Major Instrument</td>
<td>3</td>
</tr>
<tr>
<td>Music Theory Elective</td>
<td>3</td>
</tr>
<tr>
<td>Music History Elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>12</td>
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</table>

<table>
<thead>
<tr>
<th>Course Number and Title</th>
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<tbody>
<tr>
<td><strong>Pedagogy Courses:</strong></td>
<td></td>
</tr>
<tr>
<td>MUS 563, 564 Pedagogy I, II</td>
<td>6</td>
</tr>
<tr>
<td>Additional Music History and/or Music Theory</td>
<td>3-6</td>
</tr>
<tr>
<td>MUS-PRV 5_2 Private lessons on major instrument</td>
<td>3-6</td>
</tr>
<tr>
<td>(2 semesters minimum: private lessons must be taken each semester of residency)</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>13-16</td>
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<tr>
<td><strong>Pedagogy Option Culminating Project (A, B, or C)</strong></td>
<td></td>
</tr>
<tr>
<td>A) MUS-APL 546 Graduate Solo Performance Recital by special permission</td>
<td>3</td>
</tr>
<tr>
<td>B) MUS-APL 544 Lecture/Recital</td>
<td>3</td>
</tr>
<tr>
<td>C) MUS 593 Thesis</td>
<td>6</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>3-6</td>
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</tbody>
</table>

### Master of Music, Pedagogy

#### Graduation Requirements:
31 credits minimum, stipulated below, are required for graduation. The actual number of credit hours may vary, depending on the needs of individual students as determined by the results of predictive examinations.

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<tr>
<td>MUS 563, 564 Pedagogy I, II</td>
<td>6</td>
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<tr>
<td>Additional Music History and/or Music Theory</td>
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</tr>
<tr>
<td>MUS-PRV 5_2 Private lessons on major instrument</td>
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<td><strong>TOTAL</strong></td>
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</table>

*All students must take a minimum of one history or theory course that is designated graduate-only. Piano and voice majors must take a minimum of two.
Course Offerings

MUS-APL — MUSIC APPLIED, PERFORMANCE CLASSES, RECITALS

MUS-APL 529 JAZZ IMPROVISATION (1-0-1)(F/S). Private lessons in jazz improvisation. Intended primarily for instrumental majors, this performance-oriented course deals with the principles of jazz harmony and scalar theory. These principles will be applied to selected exercises and standard jazz literature. Students should possess above-average technical facility on their instrument and should have a working knowledge of music theory. Extra fee, non-refundable, per private lesson fee schedule, required. PREREQ: Graduate Standing and MUS 103 or PERM/INST.

MUS-APL 544 LECTURE/RECITAL (0-V-3). A full lecture/recital elected as the culminating project for the Master of Music degree. Music Education or Performance/Pedagogy emphasis major. The lecture is to demonstrate scholarly study on a selected topic and the recital is to present supportive musical examples. (Pass/Fail.) PREREQ: PERM/INST/CHAIR.

MUS-APL 546 GRADUATE SOLO PERFORMANCE RECITAL (0-V-3). A full recital to be presented as the culminating project for the Master of Music degree, Performance/ Pedagogy emphasis. (Pass/Fail). PREREQ: PERM/CHAIR.

MUS-PRV — MUSIC PRIVATE LESSONS PERFORMANCE STUDIES

Students will be assigned on the basis of an audition. Performance, Technical Study, Musical Interpretation, Literature, and Teaching Technique will be stressed.

All 500-level MUS-PRV courses are repeatable. See undergraduate Private Lesson Performance Studies course numbering system for explanation of course numbers.

MUS-PRV 501 (0-5-1), 502 (0-5-2), 504 (0-1-4). Woodwind instruments private lessons.

MUS-PRV 511 (0-5-1), 512 (0-5-2), 514 (0-1-4). Brass instruments private lessons.

MUS-PRV 521 (0-5-1), 522 (0-5-2), 524 (0-1-4). Percussion instruments private lessons.

MUS-PRV 531 (0-5-1), 532 (0-5-2), 534 (0-1-4). Voice private lessons.

MUS-PRV 541 (0-5-1), 542 (0-5-2), 544 (0-1-4). Keyboard instruments private lessons.

MUS-PRV 551 (0-5-1), 552 (0-5-2), 554 (0-1-4). Fretted string instruments private lessons.

MUS-PRV 561 (0-5-1), 562 (0-5-2), 564 (0-1-4). Bowed string instruments private lessons.

MUS-ENS — MUSIC ENSEMBLE

All MUS-ENS courses may be repeated for credit.

MUS-ENS 321G MARCHING BAND (0-4-1)(F). Designed to promote participation in and repertoire knowledge of literature for marching bands. The marching band performs at all home and at least one away football game and occasionally at other university or civic events. Open to all students with the approval of the director. Graduate music students will be expected to assume leadership roles or will be assigned extra duties within the band and/or its organization.

MUS-ENS 323G Pep Band (0-4-1)(S). Designed to promote participation in and repertoire knowledge for athletic and promotional bands. Regular public performances are required at Boise State athletic events and university and community functions. PREREQ: MUS-ENS 211/212/311G with an audition and/or PERM/INST.

MUS-ENS 501 UNIVERSITY SINGERS (0-2-1)(F/S). Open to all, a campus and community choir that focuses on improving vocal technique and musicianship skills. No audition. Major choral works from all periods, public performances. PREREQ: MUS-ENS 221 with an audition and/or PERM/INST.

MUS-ENS 503 CHAMBER SINGERS (0-2-1)(F/S). Ten select singers specializing in vocal chamber music, emphasizing Medieval, Renaissance, and Baroque music. Active performance schedule both on campus and in the community. Membership by audition. PREREQ: Audition and/or PERM/INST.

MUS-ENS 505 MEISTERSINGERS (0-2-1)(F/S). Advanced 42-voice concert-housing chorus, highest standards, very active performing schedule. Membership by audition. PREREQ: Audition and/or PERM/INST.

MUS-ENS 511 VOCAL JAZZ CHOIR (0-2-1)(F/S). Designed to promote participation in and repertoire knowledge of literature for vocal jazz choirs. Public performances. PREREQ: Audition and/or PERM/INST.

MUS-ENS 512 WOMEN’S CHORALE (0-2-1)(F/S). Specializing in choral literature for treble voices from all time periods, teaching vocal technique, musicianship, and sight-reading. Public performances. Membership by minimal audition. Public performances are given each semester. PREREQ: Audition and/or PERM/INST.

MUS-ENS 515 OPERA THEATER (0-5-1). Advanced study/experience in singing-acting technique and movement through performing in productions from the opera and/or musical theater repertoire. May be repeated for up to 4 credits maximum. PREREQ: PERM/INST.

MUS-ENS 518 EARLY MUSIC ENSEMBLE (0-3-1)(F/S). Course explores European vocal and instrumental music from the Middle Ages, Renaissance and Baroque periods through performance. Graduate music students will be expected to assume leadership roles or will be assigned extra duties within the ensemble. Concert performances by students enrolled in the course are expected each semester. May be repeated for credit.

MUS-ENS 520 SYMPHONIC WINDS (0-5-1)(F/S). Rehearsal attendance and performance with the select concert band of the University. PREREQ: Audition and/or PERM/INST.

MUS-ENS 522 TREASURE VALLEY CONCERT BAND (0-3-1)(F/S). Rehearsal attendance and multiple performances with this full symphonic band comprising professionals and advanced adult musicians. PREREQ: PERM/INST.

MUS-ENS 526 JAZZ ENSEMBLE (0-3-1)(F/S). Rehearsal attendance and performance with the university big band jazz ensemble. PREREQ: Audition and/or PERM/INST.

MUS-ENS 540 PERCUSSION ENSEMBLE (0-2-1)(F/S). Rehearsal attendance and performance with the University percussion ensemble. PREREQ: PERM/INST.

MUS-ENS 550 ORCHESTRA (0-5-1)(F/S). Rehearsal attendance and performance with the university orchestra. Graduate students are expected to assume leadership roles or will be assigned extra duties within the orchestra and/or its organization. Audition required for new students. PREREQ: PERM/INST.

MUS-ENS 560 CHAMBER ENSEMBLE (0-1-1)(F/S). Participation in a faculty coached, official departmental chamber ensemble, resulting in a minimum of one public performance per semester. PREREQ: PERM/INST.

MUS-ENS 570 TROMBONE CHOIR (0-2-1)(F/S). Study and performance of the literature, including original and transcribed works for multiple tenor and bass trombones. Public performances each semester. PREREQ: PERM/INST.

MUS-ENS 585 DUO PIANO ENSEMBLE (0-2-1)(F/S). Survey of duo-piano literature, rehearsal and performance problems, resulting in public performance each semester. PREREQ: PERM/INST.

MUS — MUSIC, GENERAL

MUS 355G ROCK MUSIC: ITS PERFORMANCE AND HISTORY (3-0-3) (F/S). Survey of history and theory of rock music from primitive beginnings in nineteenth century to the present with primary focus on music from 1950 through 1970. Includes a final performance component. Graduate students will be expected to engage in current research on the subject matter. PREREQ: MUS 220 and PERM/INST.

MUS 423G SIXTEENTH-CENTURY COUNTERPOINT (3-0-3)(S). Study of 16th century compositional techniques. Compositions will be written in 2 to 4 voices, 5 species, Cl clefs and Latin texts. Analysis of/listening to music of the period. Additional compositions and/or research for graduate credit. PREREQ: MUS 220 or equivalent.

MUS 424G COUNTERPOINT SINCE 1600 (3-0-3)(F). Study of contrapuntal styles from Baroque period to present day. Invertible counterpoint, canon, fugue, invention, and analysis of procedures in representative works. Additional compositions and/or research for graduate credit. PREREQ: MUS 220.

MUS 454G SECONDARY GENERAL MUSIC METHODS (2-0-2)(S)(Odd years)(Alternate years). Methods and materials emphasizing the development of discriminating listening skills, expressive singing, reading and notating music, creating music, and understanding music’s role in contemporary society.
MUS 465G DICTION FOR SINGERS I (2-0-2)(F)(Odd years). A course designed for singers, devoted to the understanding of the International Phonetic Alphabet (IPA) system and the learning of the rules of pronunciation in Italian, Latin, and Spanish languages. Graduate students will additionally transcribe an entire song cycle or the songs of a proposed graduation recital. Required for all vocal performance majors and Master of Music vocal performance majors and strongly recommended for all voice emphasis majors. PREREQ: One year of MUS-PRV voice performance studies.

MUS 466G DICTION FOR SINGERS II (2-0-2)(S)(Even years). A continuation of MUS 465G Diction for Singers I, with emphasis on German, French, and English languages. Graduate students will additionally transcribe an entire song cycle or the songs of a proposed graduation recital. Required for all vocal performance majors and Master of Music vocal performance majors and strongly recommended for all voice emphasis majors. PREREQ: MUS 465G or PERM/INST.

MUS 472G ADVANCED METHODS FOR ELEMENTARY MUSIC TEACHING (3-0-3)(F)(Even years). Primarily for music majors. Emphasis on methods and materials for individualized instruction, special education, related arts, and listening lessons, as well as a study of the major contributions made to music education from the fields of educational philosophy and psychology. PREREQ: MUS 374.

MUS 501 HISTORY OF MUSIC IN THE UNITED STATES (3-0-3)(F/S). Designed for either the non-specialist or specialist in music, this course will survey the role which music has played in the development of American culture. Vernacular and art music, as well as social and historical interrelationships with music will be examined and discussed. History elective.

MUS 502 SURVEY OF JAZZ (3-0-3)(S). Explores interpretation of America's original musical art form through listening and through discussion of socio-cultural contexts of jazz. Survey covers stylistic influences of nineteenth-century Africa and western Europe through current living exponents of jazz. In-depth book reviews and research papers on the subject are required. History elective. PREREQ: MUS 100 or MUS 101.

MUS 503 INTRODUCTION TO MUSIC RESEARCH (3-0-3)(F/S). This course will provide an introduction to the basic research literature pertinent to the student’s major area of emphasis; an interpretation of research findings; and the means to develop skills and techniques needed for the writing of an extended research paper, thesis and/or dissertation, articles for publication and book/performance reviews.

MUS 504 SURVEY OF ETHNOMUSICOLOGY AND WORLD MUSIC (3-0-3)(S)(Even years). This course considers the role of music in society and culture, and examines several musical traditions beyond the scope of Western art music. History elective. PREREQ: Admission to Master of Music program or PERM/INST.

MUS 505 SEMINAR IN CHORAL MUSIC: PERFORMANCE PRACTICES AND STYLES (3-0-3)(F/S). An historical, generic survey of the repertoire in choral literature. Emphasis will be placed on facets of interpretation through a study of representative compositions from the standpoint of performance practice, analytic techniques, and the reading of primary sources of pertinent information.

MUS 506 SEMINAR IN INSTRUMENTAL MUSIC: PERFORMANCE PRACTICES AND STYLES (3-0-3)(F/S). Analysis and study of works from the Baroque through the present era. Particular attention will be paid to performance practices of ornamentation, style, tempo, scoring, dynamics, etc. Band transcriptions also included.

MUS 510 ADVANCED FORM AND ANALYSIS (3-0-3)(S). Analysis of harmonic and formal structures of the larger binary and ternary forms; the sonata, the symphony, the concerto, Baroque forms. Theory elective.

MUS 511 20TH-CENTURY MUSICAL STUDIES (3-0-3)(F/S). A study of 20th-century compositional techniques and performance practices through analysis, discussion of aesthetics, listening, performance, and creative writing. Contemporary techniques (and their notation), such as quartal harmonies, serialization, improvisation, electronic music, microtones, and multi-media will be explored, and their application to the secondary school music classroom will be discussed. Theory elective.

MUS 512 ELECTRONIC MUSIC APPLICATIONS (3-0-3)(F/S). A historical overview of electronic music and music technology. Hands-on experience with digital and analog synthesizers, effects processors, sampling, tape decks, computers and related software, and MIDI. Emphasis will be placed on the application of fundamental techniques of electronic music to creative composition. Theory elective.

MUS 531 SEMINAR IN MEDIEVAL THROUGH BAROQUE PERFORMANCE PRACTICES (3-0-3)(F/S). The study of music literature in Western Europe from the late Middle Ages through the Baroque period through the historical survey of performance practices and their practical application. History elective.

MUS 552 SEMINAR IN MODERN MUSIC: FORM AND STYLE: (1750-1980) (3-0-3)(F/S). The study of art music in the Western World from 1750 through the present, with emphasis on selected masterworks, including score analysis, performance practice, textual background and historical context. History elective.

MUS 557 MAJOR INSTRUMENT LITERATURE (3-0-3)(F/S). Advanced survey of the major instrument literature. The student will prepare a research paper on several typical or important works in the repertoire. Repeatable for credit for different instruments.

MUS 561 ADVANCED CONDUCTING (3-0-3)(F/S). Designed for secondary music teachers, this course provides opportunity to discover and analyze technical conducting problems, both instrumental and choral, in music of the various historical eras, which forms a significant part of the secondary school repertoire.

MUS 563 MAJOR INSTRUMENT PEDAGOGY I (3-0-3)(F). An advanced and in-depth investigation of pedagogical techniques, materials and principles used in the private teaching studio. Readings in the philosophy of teaching will be included. Repeatable for credit for different instruments.

MUS 564 MAJOR INSTRUMENT PEDAGOGY II (3-0-3)(S). Development of lesson plans and supervised studio teaching in both private and group settings. Recommended preparation: MUS 563. Repeatable for credit for different instruments.

MUS 567 CHORAL LITERATURE (2-0-2)(F). Survey course exploring choral works from all time periods. Though secular works will be discussed, special emphasis will be placed on tracing the development of the Mass, Motet, and Requiem throughout history. Strategies for teaching and performing these works will be discussed. Special projects include programming for elementary, secondary, and collegiate choirs.

MUS 570 NEW DEVELOPMENTS IN MUSIC EDUCATION (3-0-3)(F/S). Designed to acquaint the music specialist with recent ideas in music education, including major trends in curriculum, new methodology, music in integrated courses, and reports of major conferences and symposia.

MUS 571 ADVANCED PRACTICES AND PRINCIPLES IN TEACHING MUSIC IN THE ELEMENTARY SCHOOL (3-0-3)(F/S). Designed for the general classroom teacher or music specialist, the course deals with old and new approaches to teaching music in the classroom, teaching materials, current research on problem singers, creative musical activities, and the development of music reading skills. PREREQ: MUS 574 or PERM/INST.

MUS 572 LISTENING AND SINGING EXPERIENCES FOR THE ELEMENTARY SCHOOL (3-0-3)(F/S). Designed for the general classroom teacher or music specialist, the course deals with the study of singing and listening materials relevant to classroom music, K-6. Sequential curriculum plans will be developed for singing and listening experiences. PREREQ: MUS 574 or PERM/INST.

MUS 573 ADVANCED METHODS AND TECHNIQUES FOR THE INSTRUMENTAL INSTRUCTOR (3-0-3)(F/S). A study of causes and solutions for problems occurring in the instrumental rehearsal. Areas to be covered include instrumental methods and techniques, organization and repertoire planning.

MUS 574 ADVANCED METHODS AND TECHNIQUES FOR THE CHORAL INSTRUCTOR (3-0-3)(F/S). A study of causes and solutions for problems occurring in the choral rehearsal. Areas to be covered include vocal methods and techniques, organization and repertoire planning.

MUS 575 ADMINISTRATION OF SCHOOL MUSIC (3-0-3)(F/S). A seminar in problems of music supervision and administration covering areas such as budget, scheduling, curriculum, personnel and philosophy.

MUS 576 HISTORY AND PHILOSOPHY OF MUSIC EDUCATION (3-0-3)(F/S). Includes both an introduction to the history of music education in the United States, from colonial New England to the present; and alternate views about the philosophy of music, including aesthetic experience, aesthetic education, and the nature and meaning of music.
Business & Economics

Graduate Degrees Offered

- Master of Business Administration
- Executive Master of Business Administration
- Master of Science in Accountancy
- Master of Science in Accountancy, Taxation

General Information

The College of Business and Economics at Boise State University offers graduate programs in business administration, accountancy, and accountancy in taxation through its five academic departments:

- Accountancy
- Economics
- Information Technology and Supply Chain Management
- Management
- Marketing and Finance

These graduate programs are accredited by AACSB International—The Association to Advance Collegiate Schools of Business. This is a distinction held by approximately 35% of the 1,200 institutions in the U.S. that grant business degrees. The College’s accountancy programs are also accredited by AACSB International—The Association to Advance Collegiate Schools of Business. Only about 14% of accounting programs have attained this recognition.

Master of Business Administration

Graduate Studies Director: Kirk Smith
Program Administrator: J. Renee Anchustegui

Accountancy
Graduate Faculty: Paul Bahnson, Mark Cowan, Denise M. English, Thomas J. English, David R. Koeppen, William C. Lathen, E. Shawn Novak, Celia Renner
Adjunct Graduate Faculty: Fred Christensen, Frank Ilett Jr., Susan Shannon

Economics
Graduate Faculty: Zeynep Hansen, Christine Loucks, Scott E. Lowe, Sian Mooney, Charlotte Twight

Information Technology and Supply Chain Management
Graduate Faculty: Robert Anson, Tim Chenoweth, Karen Corral, Philip Fry, Lyman Gallup, Thomas Gattiker, Robert Minch, Patrick Shannon, Sharon Tabor, Regis Terpend, Gregory Wojtkowski, Wita Wojtkowski

Management
Graduate Faculty: Christopher Baughn, Michael B. Bixby, Nancy Bodie, Mark Buchanan, Roy Glen, Newell Gough, John McIntosh, Nancy K. Napier, Kent Neupert, Jeffrey S. Sughier, James E. Wanek

Marketing and Finance
Graduate Faculty: L. Dwayne Barney, Alan Frankle, Keith Harvey, Douglas J. Lincoln, Jason MacDonald, Matthew Maher, K. G. McCain, Nina Ray, Shikhar Sarin, Diane Schooley-Pettis, Trina Sego, Kirk Smith, Harry White

General Information

The Master of Business Administration (MBA) at Boise State University provides tomorrow’s business leaders with a high-quality academic program. Students gain a thorough grounding in each of the key business areas of accounting, finance, marketing, operations, information technology, legal issues, human resource management, strategy, and leadership. Integration of the student’s knowledge across these functional disciplines is one of the programs’ key objectives. Further, a global emphasis encourages students to look beyond their immediate borders as they learn to target problems, select viable alternatives, and take appropriate action.

Teaching styles among the faculty range from formal textbook and supplementary syllabus readings to case methods, simulations, and fieldwork. In addition to lectures, research projects, case analysis, discussion groups and guest speakers, several courses incorporate group projects as an integral part of the learning.

Graduate Assistantships are available and cover the student’s tuition and fees plus a stipend. Applicants must be enrolled in the MBA.
program concurrently with their graduate assistantship. Applications for graduate assistantships are due by February 1 for fall semesters and October 1 for spring semesters.

With approval of the MBA program director and the department head concerned, MBA students may earn up to a maximum of 3 credit hours of Directed Research and/or Internship credits which apply to graduation requirements.

Students are asked to subscribe to a listserv. Instructions and a link are at http://cobe.boisestate.edu/graduate.

### Application and Admission Requirements

Application for admission, transcripts, and fees should be sent to the Graduate Admission and Degree Services, Room H1, Math/Geosciences Building, Boise State University, 1910 University Drive, Boise, ID 83725-1110. All other admission materials required for the MBA should be sent to the Business Graduate Studies office, Room 307, Business Building, Boise State University, 1910 University Drive, Boise, ID 83725-1600.

Acceptance into the MBA program is based on the applicant’s prior academic performance, leadership experience, professional business experience, aptitude for graduate study, general motivation, and managerial potential. All applications must include the following:

1. Applicants to the MBA program must have graduated from an accredited college or university with a Bachelor degree. Copies of official transcripts must be provided from your previous academic institution(s).

2. A score of 500 or more on the GMAT exam and a cumulative GPA of 3.0 (C = 2.0) are generally considered minimal. New applicants to the program should furnish their GMAT scores at the same time official transcripts are provided. For fall enrollment, students should arrange to take the GMAT by January. For spring enrollment, the GMAT should be taken no later than August.

3. Students with English as a second language (ESL) must score a minimum of 587/95 on the TOEFL or its equivalent. ESL students may also be asked to take and pass an English proficiency exam at Boise State before taking any graduate courses beyond their first semester.

4. Applicants are expected to bring at least two years of significant work experience. This requirement may be waived if the applicant has a GMAT score of 600 or higher. A current, detailed professional resume must also be provided to document the professional work experience.

5. Two letters of reference (one preferably from an academic source) are required. The letters should address the applicant’s strengths and weaknesses, the benefits the applicant may receive from our MBA program, and what the applicant can contribute to our MBA program, should he or she be admitted.

6. Each applicant must provide an essay response that is no longer than two pages (double-spaced) on one of the following three topics:

   A. Present your career goals, both short-term and long-term. How will an MBA program in general, and Boise State’s MBA program in particular, help you achieve these goals?

   B. Describe two or three situations in the past three years where you have taken a leadership role. How do these situations demonstrate your managerial potential?

   C. Candidly evaluate yourself. Include some discussion of the abilities and other attributes you see as strengths and some discussion of areas you would like to develop more fully. What is most unique or distinctive about you?

7. Enrollment in MBA classes is dependent on acceptance to either the MBA program or another Boise State University Master’s program.

Final acceptance into the MBA program is based upon the Graduate College evaluation and acceptance of the applicant.

**Note:** Both a good understanding of college algebra and computer skills are essential to successful progress in the MBA program. Applicants may wish to brush up on these skills prior to admission as students are required to pass math and computer competency exams prior to enrollment in their first semester of graduate course work.

Undergraduate students are not permitted to take MBA classes under the University’s Permit for Seniors to Take Graduate Courses policy.

For priority processing, complete application packets must be received no later than:

- Summer entry ................................................................................. March 1
- Fall entry ........................................................................................ June 1
- Spring entry .................................................................................... October 1

Students will typically be notified of their admittance status by April 14, July 15, or November 15.

### Degree Requirements

The MBA requires a minimum of 37 semester credit hours and a maximum of 49 semester credit hours. The exact number of credits required depends upon the student’s prior academic experience.

Specialization: While there is no major available in the MBA program, once students satisfy the functional core of courses, they can emphasize an area of concentration with their elective credits. This specialization includes accounting and finance, entrepreneurship, information technology, or high-tech marketing, and can expand beyond business to such areas as engineering, health policy, or public administration.

<table>
<thead>
<tr>
<th>Master of Business Administration</th>
<th>Credits</th>
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<td>Business Essentials Courses:</td>
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<td>Students may elect to either take the MBA business</td>
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<td>essentials courses or take an exam to waive out of any/all</td>
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<td>of those courses. A score of 80% is required on each exam</td>
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<td>to qualify for a course waiver. This policy ensures students admitted to the advanced courses have a consistent level of knowledge and current skill set.</td>
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<tr>
<td>MBA 512 Business Statistics.................................</td>
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<td>MBA 514 Economic Theory and Analysis ......................</td>
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<td>MBA 522 Accounting and Financial Analysis..................</td>
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<td>MBA 527 Creation and Distribution of Goods and Services</td>
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Course Offerings

**BUSINESS ESSENTIALS COURSES**

**MBA—MASTER OF BUSINESS ADMINISTRATION**

**MBA 512 BUSINESS STATISTICS (3-0-3)(F).** Examines the use of statistics in business decision-making. Summarizing, analyzing, and presenting data to support managerial decisions will be emphasized. Topics may include descriptive statistics, inferential statistics, analysis of variance, regression analysis, forecasting, and nonparametric techniques.

**MBA 514 ECONOMIC THEORY AND ANALYSIS (3-0-3)(S).** Offers an accelerated, integrated introduction to economic analysis of the price system and the aggregate performance of developed economies, including supply and demand, basic market structures, income distribution, employment, inflation, growth and international trade.

**MBA 522 ACCOUNTING AND FINANCIAL ANALYSIS (3-0-3)(F).** Introduces basic concepts, standards, and practices of financial reporting so students can read and understand published financial statements. Fundamentals of accounting and finance as it relates to developing a framework for analyzing a firm’s investment and financing decisions are emphasized. Topics may include income statement and balance sheet preparation, as well as valuation and capital budgeting techniques.

**MBA 527 CREATION AND DISTRIBUTION OF GOODS AND SERVICES (3-0-3)(S).** Introduction to the creation and distribution of goods and services. Integrates both marketing and operations management concepts and will discuss the activities associated with product pricing, product promotion, and the manufacturing and delivery of goods and services.

**ADVANCED COURSES**

**MBA 531 STRATEGIC PERSPECTIVES (1-0-1)(F,S).** Examines the five major forces transforming business: boundaries of the firm, market and competitive analysis, dynamics of developing and sustaining advantages, internal organization, major forces in the environment. MBA students should take MBA 531 the first semester of their advanced course work. PREREQ: MBA 512, MBA 514, MBA 522, and MBA 527.

**MBA 532 ACCOUNTING FOR DECISION MAKING AND CONTROL (3-0-3)(S).** Explains how accounting concepts are used to manage costs and other aspects of a business to create profits. PREREQ: MBA 522 or equivalent. PRE/COREQ: MBA 531.

**MBA 533 ADVANCED OPERATIONS MANAGEMENT (3-0-3)(F).** Concepts and issues related to managing the operations function of an organization. Topics include forecasting, production planning, materials management, quality management, and supply chain management as they relate to developing a competitive operations strategy. The role of information technology as it relates to operations management and the relationships between operations and other business functional areas are also discussed. PREREQ: MBA 527 or equivalent.

**MBA 534 INFORMATION TECHNOLOGY FOR MANAGERS (3-0-3)(S).** Examines key concepts in the management of information technology and the role of functional managers in technology decision making. Emphasis is on the management of technology from both process and system perspectives, as well as issues and opportunities in innovating through technology. PRE/COREQ: MBA 531.

**MBA 535 LEGAL ISSUES IN BUSINESS RELATIONSHIPS (3-0-3)(S).** Exposes future managers to the major legal issues involved in intellectual property, private and public equity financing, cyber law, and product liability. Emphasis will be on what managers should know in order to make decisions that will not trigger legal problems. PRE/COREQ: MBA 531.

**MBA 536 GLOBAL ECONOMIC AND BUSINESS ANALYSIS (3-0-3)(F).** Examines the relationships between business and economic, ethical, legal, political, and social systems and the effects of these relationships on management decisions from both national and international perspectives. PREREQ: MBA 531 and MBA 514, or equivalents.

**MBA 537 MANAGING PEOPLE IN ORGANIZATIONS (2-0-2)(F).** Provides an opportunity to acquire knowledge and refine basic skills for managing the flow of employees into, through, and out of organizations. Human resource planning, employee recruitment, selection, performance coaching, and appraisal topics will be covered in the context of how policies and decisions support and further a company’s strategic goals. The impact of changing technology and demographics on “best” practices for managers dealing with employees will be discussed.

**MBA 538 ORGANIZATIONAL ISSUES (2-0-2)(S).** Application of behavioral science principles and skills in an organizational setting. Emphasis is on an interactionist perspective (individual, group, and organizational dynamics). Emphasis will be on how to capitalize upon new product opportunities while concurrently managing existing products. PREREQ: MBA 522, MBA 527, and MBA 531, or equivalents.

**MBA 539 ADVANCED MARKETING MANAGEMENT (3-0-3)(F).** Examines the best allocation of marketing resources in order to achieve the organization’s strategic objectives. Focus is on understanding market reactions to current and anticipated marketing programs. Learn to recognize and how to
MBA 545 ADVANCED FINANCIAL MANAGEMENT (3-0-3)(S). Reviews dynamic financial analysis with emphasis on the current practical applications and complexities of capital budgeting, arbitrage arguments, risk-return models and financing alternatives. PREREQ: MBA 514, MBA 522, or equivalents.

MBA 546 STRATEGIC MANAGEMENT (2-0-2)(F,S). Examines how organizations obtain and deploy resources within a changing environment to gain and sustain a competitive advantage. Topics include analysis, formulation and implementation of business and corporate strategy. Integration of student’s prior course work across functional areas is a major component of this course. Should be taken in the student’s last semester of study. PREREQ: MBA 532, MBA 533, MBA 534, MBA 535, MBA 539.

MBA 554 EMERGING TOPICS IN INFORMATION TECHNOLOGY (3-0-3)(F). An evolving, current topics approach to investigating strategic technologies or business related technical challenges facing managers of technology. May include topics such as the strategic and financial impact of IT Governance and compliance regulations requiring new levels of security and integrity, or the review and adoption of service model approaches such as ITIL or BS17799 to improve IT service delivery to the organization. PREREQ MBA 534.

MBA 557 PROJECT AND CHANGE MANAGEMENT (3-0-3)(F). A managerial view of the project process, including planning scheduling, control, evaluation and politics of projects, plus staffing and teamwork issues. Additionally, reviews the process of change in organizations and the need to plan and manage change for long-term process or project success.

MBA 577 SUPPLY CHAIN MANAGEMENT (3-0-3)(F,S). Overview of the requisite knowledge that supply chain managers and those in related areas of eBusiness, manufacturing, high tech, services and consulting companies must have, including procurement and logistics fundamentals. Emphasizes critical thinking skills such as identifying important issues, making decisions about the value of data, analyzing information, and assessing risk.

ADVANCED ELECTIVES

ECON—ECONOMICS

ECON 560 ECONOMICS OF PUBLIC POLICY (3-0-3) (Intermittently). Contribution of economic analysis to the justification, design and implementation of economic policy, especially as it relates to private property, the market economy, and the benefits and costs associated with government intervention. PREREQ: MBA 514.

MGMT—MANAGEMENT

MGMT 541 HUMAN RESOURCE MANAGEMENT (3-0-3) (Intermittently). Effective management of human resources including discussion of the supervisory processes conducive to reducing labor costs and increasing productivity. Special attention is given the human, organizational, and environmental constraints that limit managerial actions.

MBA—MASTER OF BUSINESS ADMINISTRATION

MBA 561 MARKETING HIGH-TECHNOLOGY PRODUCTS (3-0-3)(F). Explores concepts and practices related to marketing in the fast-paced environment of high-technology industries.

MBA 563 CUSTOMER BEHAVIOR (3-0-3)(F). Concepts in and analysis of consumer and group buying behavior, methods of measurement, and processes to guide decisions using this knowledge. Special emphasis will be placed on the buying of high-tech products.

MBA 564 INTERNET MARKETING STRATEGY (3-0-3)(S). Explores how the integration of Internet based technology is changing the business environment. Key topics include network infrastructure, Internet buyer behavior, integrated market communication, e-business model construction, analysis, and valuation.

MBA 566 CUSTOMER RELATIONSHIP MANAGEMENT (3-0-3)(S). Focuses on how marketing managers can use technology in customer relationship management (CRM). A key topic in the course will be the use of customer information files in managing communication to and from customers. PREREQ: MBA 512, MBA 527, or equivalents.

MBA 574 FINANCIAL MODELING (3-0-3)(F,S). Introduces quantitative techniques useful for modeling and analyzing problems in finance. Topics include capital budgeting, dynamic financial planning models, portfolio optimization, and options. The emphasis is on formulating and solving models using a computer. PREREQ: MBA 545.

SELECTED TOPICS: Contemporary topics courses offered intermittently.

MBA 580 SELECTED TOPICS—ACCOUNTING
MBA 581 SELECTED TOPICS—INFORMATION SYSTEMS
MBA 582 SELECTED TOPICS—ECONOMICS
MBA 583 SELECTED TOPICS—FINANCE
MBA 584 SELECTED TOPICS—OPERATIONS/PRODUCTION
MBA 585 SELECTED TOPICS—MANAGEMENT
MBA 586 SELECTED TOPICS—MARKETING
MBA 587 SELECTED TOPICS—INTERNATIONAL BUSINESS

MBA 590 INTERNSHIP. Available on a selective, limited basis. MBA students should consult with Director.

MBA 596 INDEPENDENT STUDY (1-3 credits). Involves special projects undertaken by the student, consisting of individual work suited to the needs and interests of the student. The course embodies research, discussions of the subject matter and procedures with a designated professor, and a documented paper covering the subject.

UNDERGRADUATE “G” COURSES

At most two of the following courses may be taken for graduate credit if cleared by the Graduate Program Coordinator.

ECON—ECONOMICS

ECON 421G QUANTITATIVE METHODS IN ECONOMICS (3-0-3)(F). The first of a two-semester sequence in quantitative economic analysis, this course emphasizes the application of mathematics to the construction of economic models. Topics will include equilibrium analysis, input-output analysis, comparative static analysis, optimization techniques, and dynamic analysis. The methodological issues surrounding the use of quantitative techniques in economics are also strongly emphasized. May be taken for graduate credit. PREREQ: ECON 201, ECON 202, MATH 160 or equivalent, and BUSSTAT 207.

ECON 422G ECONOMETRICS (3-0-3)(S). The second of a two-semester sequence in quantitative economic analysis. This course emphasizes the application of statistics to the construction, estimation, and evaluation of econometric models. Other related topics will include history and methodology of econometrics, forecasting, computer applications, and the use of econometrics in business and government. May be taken for graduate credit. PREREQ: ECON 421G.

ECON 440G HEALTH ECONOMICS (3-0-3)(S). Examines the economic issues associated with those individual and social decisions that influence the health of particular groups. Examines the production and delivery of health care and the economic and ethical aspects of health policy issues. Various economic approaches to the analysis of health policy are presented and evaluated. The focus is on the U.S. health care system. Comparisons will also be made to the health care systems of other nations. PREREQ: ECON 201 and ECON 202 or PERM/INST.

ECON 480G SEMINAR IN INTERNATIONAL ECONOMICS (3-0-3)(F,S). An in-depth study of a particular subject of restricted scope in international economics. Students will survey the literature, discuss assigned topics, and prepare and present research papers. Consult the Boise State Schedule of Classes for specific selection offered. Seminar may be repeated. PREREQ: ECON 201 and ECON 202 or PERM/INST.

FINAN—FINANCE

FINAN 410G WORKING CAPITAL MANAGEMENT (3-0-3)(S). This course considers the short-term financial management of a firm. Financial analysis of past, present, and future operations is emphasized. Cash flow analysis, management of current accounts, and cost benefit analysis are stressed. Case discussions provide a merging of theoretical concepts and practical application. PREREQ: FINAN 303.

FINAN 411G CAPITAL BUDGETING AND PLANNING (3-0-3)(F). Acquisition and allocation of long-term sources of funds are the subject of this course. Emphasis is placed on fund raising and the problems associated with measurement and structural influences on the firm’s cost of capital. Cash-flow
Executive Master of Business Administration

Graduate Studies Director: Kirk Smith
Program Information: Cheryl Maille
Business Building, Room 318, Mail Stop 1600
Telephone (208) 426-4034
FAX (208) 426-1135
http://emba.boisestate.edu
e-mail: emba@boisestate.edu

General Information

The Executive Master of Business Administration (EMBA) program is a cohort-based graduate business program designed for employed professionals with considerable mid-level or higher business experience. Students in the EMBA program earn an M.B.A. degree by completing a lock-step curriculum of specified duration. The program provides advanced business education in an executive setting through a partnership between the College of Business and Economics and local companies and agencies. Participation by the partner organizations is a distinctive aspect of the program, and includes instruction in areas of special expertise, identification of illuminating projects and class experiences, and the hosting of class sessions. The unique design of the EMBA program, coupled with the wealth of diverse professional experience of the faculty and students, fosters a very effective educational environment.

Application and Admission Requirements

An applicant must follow the general application procedures for admission to a graduate program (see Graduate Admission Regulations). An applicant must also submit three letters of recommendation and an essay (describing his or her background and career goals) to the graduate program coordinator, and must participate in an interview with the coordinator or designee.

Although GMAT scores are not required in general, the coordinator may require them for a particular applicant if the scores are likely to contribute to the evaluation for admission. Once the file for an applicant is complete, it will be reviewed by the EMBA admissions committee, and an admission recommendation (regular, provisional, or denial) will be forwarded to the graduate dean. The dean will make the final admission decision and notify the applicant.

Conditions for Admission

Applicants must satisfy the minimum admission requirements of the Graduate College and should have six or more years of mid-level to senior-level managerial or professional experience. The admissions process favors applicants who can contribute to the education of all program participants and have the potential for significant professional growth. Admission is competitive and is not guaranteed to any applicant. Each cohort is limited to a maximum of 35 students, and smaller cohort sizes may be imposed at the discretion of the EMBA admissions committee.

Degree Requirements

Students enter as a cohort in the fall and finish the program together in two academic years. In the first year, students complete an integrated program of courses intended to give broad exposure to areas such as accounting, economics, finance, human resource
management, information systems, marketing, operations management, and strategy formulation. A theme of innovation is incorporated with a strong emphasis on communication, leadership, ethics, and problem solving. The second year requires additional courses that emphasize the application of knowledge and development of depth in specialized areas. A project is also required in the second year as a culminating activity.

### Executive Master of Business Administration

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Year Courses</strong></td>
<td></td>
</tr>
<tr>
<td>EMBA 511 Business Perspectives</td>
<td>2</td>
</tr>
<tr>
<td>EMBA 512 Assessing Business Opportunities</td>
<td>5</td>
</tr>
<tr>
<td>EMBA 513 Creating Competitive Advantage I</td>
<td>3</td>
</tr>
<tr>
<td>EMBA 514 Creating Competitive Advantage II</td>
<td>3</td>
</tr>
<tr>
<td>EMBA 515 Fostering Innovation</td>
<td>4</td>
</tr>
<tr>
<td>EMBA 516 Leadership and Teamwork Skills</td>
<td>2</td>
</tr>
<tr>
<td>EMBA 517 Issues in Leadership I</td>
<td>1</td>
</tr>
<tr>
<td><strong>Second Year Courses</strong></td>
<td></td>
</tr>
<tr>
<td>EMBA 521 Business in a Global Environment</td>
<td>5</td>
</tr>
<tr>
<td>EMBA 522 Rescuing Distressed Business Units</td>
<td>2</td>
</tr>
<tr>
<td>EMBA 523 Introducing New Products and Services</td>
<td>2</td>
</tr>
<tr>
<td>EMBA 524 Partnerships, Acquisitions, and Divestitures</td>
<td>2</td>
</tr>
<tr>
<td>EMBA 525 Issues in Leadership II</td>
<td>1</td>
</tr>
<tr>
<td><strong>Culminating Activity (Second Year)</strong></td>
<td></td>
</tr>
<tr>
<td>EMBA 591 Project</td>
<td>8</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>40</td>
</tr>
</tbody>
</table>

**Course Offerings**

**EMBA—EXECUTIVE MASTER OF BUSINESS ADMINISTRATION**

Courses with the EMBA prefix are available only to students enrolled in the EMBA program, and are offered according to a schedule determined by the start semester of each cohort.

**EMBA 511 BUSINESS PERSPECTIVES (V-V-2)(F).** Provides an introduction to how managers can assess business opportunities, create competitive advantage, and foster innovation throughout the life cycle of products and organizations. PREREQ: EMBA Program Admission.

**EMBA 512 ASSESSING BUSINESS OPPORTUNITIES (V-V-5)(F).** Provides an integrated foundation in accounting, economics, operations management, marketing, and strategic planning in the context of assessing business opportunities while operating in a global environment. PREREQ: EMBA 511.

**EMBA 513 CREATING COMPETITIVE ADVANTAGE I (V-V-3)(S).** Provides an integrated foundation in finance, human resource management, marketing, operations management, and strategic planning in the context of creating competitive advantage while operating in a global environment. PREREQ: EMBA 512.

**EMBA 514 CREATING COMPETITIVE ADVANTAGE II (V-V-3)(S).** Continues the integrated foundation in finance, human resource management, marketing, operations management, and strategic planning in the context of creating competitive advantage while operating in a global environment. PREREQ: EMBA 513.

**EMBA 515 FOSTERING INNOVATION (V-V-4)(S).** Provides a foundation in method managers can use to foster innovation within organizations. Emphasis is on the early stages of innovation including brainstorming, idea generation, and rough estimations of viability. PREREQ: EMBA 514.

**EMBA 516 LEADERSHIP AND TEAMWORK SKILLS (V-V-2)(F).** Examines personal styles in the workplace with emphasis on group dynamics.

Also includes a personalized assessment of each participant’s leadership strengths and weaknesses followed by the creation of a customized development plan. (Pass/Fail.) PREREQ: EMBA Program Admission.

**EMBA 517 ISSUES IN LEADERSHIP I (V-V-1)(S).** Continues execution of the leadership development goals identified in EMBA 516. (Pass/Fail.) PREREQ: EMBA 516.

**EMBA 521 BUSINESS IN A GLOBAL ENVIRONMENT (V-V-5)(F).** Builds a foundation in U.S. business law, ethics, corporate governance, and critical thinking. Includes the opportunity to solve business problems with executives from other cultures and learn about their legal and ethical issues. Requires a passport and travel out of the United States for one week. PREREQ: EMBA 515 and EMBA 517.

**EMBA 522 RESCUING DISTRESSED BUSINESS UNITS (V-V-2)(F).** Builds skill in creating strategies to return distressed business units to effectiveness. Project based with particular emphasis on finance and bankruptcy law. PREREQ: EMBA 521.

**EMBA 523 INTRODUCING NEW PRODUCTS AND SERVICES (V-V-2)(F).** Builds skill in the design and launch of new products and services. Project based with particular emphasis on marketing and business intelligence system issues. PREREQ: EMBA 521.

**EMBA 524 PARTNERSHIPS, ACQUISITIONS, AND DIVESTITURES (V-V-2)(S).** Builds skill in examining growth strategies founded upon business partnerships, acquisitions, and divestitures. Project based with particular emphasis on financial considerations, legal aspects, and issues surrounding the blending of company cultures. PREREQ: EMBA 521.

**EMBA 525 ISSUES IN LEADERSHIP II (V-V-1)(S).** Continues execution of the leadership development goals identified in EMBA 516. (Pass/Fail.) PREREQ: EMBA 517.
Department of Accountancy

Chair: Denise M. English  
Business Building, Room 214, Mail Stop 1610  
Telephone (208) 426-1322  
FAX (208) 426-3637  
http://cobe.boisestate.edu/graduate

Graduate Faculty: Paul Bahnson, Mark Cowan, Denise M. English,  
Thomas J. English, David R. Koeppen, William C. Lathen,  
E. Shawn Novak, Celia Renner,  
Adjunct Graduate Faculty: Fred Christensen, Frank Ilett Jr.,  
Susan Shannon

Master of Science in Accountancy

Graduate Studies Director: Kirk Smith  
Program Administrator: J. Renee Anchustegui  
Business Building, Room 318  
Telephone (208) 426-3116  
FAX (208) 426-1135  
http://cobe.boisestate.edu/graduate  
e-mail: graduatebusiness@boisestate.edu

General Information

The Master of Science in Accountancy is designed to provide individuals, seeking to enhance their professional competence, the skills necessary to offer value-added services. The program builds upon student’s previously acquired knowledge and skills acquired in the undergraduate program and focuses on providing value-added services and solving real world business problems.

This degree program is designed to serve both professionals looking to expand their accounting knowledge and traditional undergraduate students seeking to complete the CPA requirements through the acquisition of a graduate degree. The program will serve the accounting profession by preparing accounting professionals to offer value-added services to their clients and employers.

Students may apply for Graduate Assistantships covering tuition and fees plus a stipend. Application must be received in the Business Graduate Studies office by February 1 of each year. Typical assignments include research assistantships, teaching assistantships, or specific project assignments.

Under certain conditions, and with approval of the MSA program director and the department head concerned, MSA students may earn up to a maximum of 3 credit hours of Directed Research or internship credits that apply to graduation requirements.

Students are asked to subscribe to a listserv during their first semester of study. Listserv instructions and a link are at http://cobe.boisestate.edu/graduate.

Application and Admission Requirements

Application for admission, fees, and transcripts should be sent to the Graduate Admissions Office, Room H41, Math/ Geosciences Building, Boise State University, 1910 University Drive, Boise, ID 83725-1110.

Application and Admission Requirements

Initial acceptance in order to take MSA classes is based on the applicant’s academic performance, leadership experience, professional experience, aptitude for graduate study, and managerial attributes. All applicants must fulfill the following requirements.

1. Applicants to the MSA program must have graduated from an accredited college or university with a Bachelor’s degree. Applicants to the MSA must complete all accounting classes required for an undergraduate degree in accounting in addition to 15 credit hours of coursework from the Boise State College of Business undergraduate core. Applicants to the MSA, Taxation emphasis need not have a degree in accounting, but must have completed the equivalent of ACCT 302, Survey of Federal Income Taxation. Copies of official transcripts are also required upon initial application. Undergraduate students intending to enter the MSA program immediately upon completion of their Bachelor’s degree programs should plan to take the Graduate Management Admission Test (GMAT) and apply to the program during the first semester of their senior year.

2. A score of 500 on the Graduate Management Admission Test (GMAT) and a cumulative GPA of 3.0 (C = 2.0) are generally considered minimal. For fall enrollment, students should arrange to take the GMAT by January. For spring enrollment, the GMAT should be taken no later than August. Undergraduate students should plan to take the GMAT by the middle of the first semester of their senior year. The GMAT may be waived for applicants who are currently CPAs, certified management accountants (CMAs), or certified internal auditors (CIAs). Applicants should request a letter be sent directly to the Graduate Admissions Office from the appropriate state board or national organization verifying their certification status.

3. Students with English as a second language (ESL) must score a minimum of 587/95 on the TOEFL or its equivalent. ESL students must also take and pass an English proficiency exam at Boise State before taking any graduate courses beyond their first semester.

4. Current professional resume which accurately reflects educational and professional work experience.

5. Two letters of reference (one preferably from an academic source) addressing the applicant’s strengths and weaknesses, the benefits the applicant may receive from the MSA program, and what the applicant can contribute to the MSA program.

6. A brief response (maximum 2 pages, double spaced) discussing one of the following:
Master of Science in Accountancy, Taxation

Graduate Studies Director: Kirk Smith
Program Administrator: J. Renee Anchustegui
Business Building, Room 318, Mail Stop 1600
Telephone (208) 426-3116
FAX (208) 426-1135
http://cobe.boisestate.edu/graduate
e-mail: graduatebusiness@boisestate.edu

General Information

The Master of Science in Accountancy, Taxation is designed to provide the curriculum and forum where individuals can obtain focused instruction in advanced taxation issues. Similar to the Master of Science in Accountancy degree, the Master of Science in Accountancy, Taxation degree builds upon the student’s previously acquired knowledge and provides the skills necessary to provide value-added services in the complex taxation environment.

This program will fulfill the needs of those individuals that desire to specialize in taxation (in addition to the objectives of the Master of Science in Accountancy). It serves Business professionals that desire to expand their knowledge in Taxation and value-added services as well as traditional students that desire an entry level position in the tax area.

Application and admission requirements and information on how to apply for Graduate Assistantships are described in the Master of Science in Accountancy.

Degree Requirements

<table>
<thead>
<tr>
<th>Master of Science in Accountancy, Taxation</th>
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<tbody>
<tr>
<td>Course Number and Title</td>
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<tr>
<td>------------------------------------------</td>
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<tr>
<td>The MSAT degree requires a minimum of 30 hours of study.</td>
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<tr>
<td><strong>Accountancy/Taxation Courses</strong></td>
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<tr>
<td>Select From:</td>
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<tr>
<td>ACCT 502 Advanced Tax Topics</td>
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<tr>
<td>ACCT 505 Advanced Auditing</td>
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<tr>
<td>ACCT 510 Advanced Financial Reporting</td>
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<tr>
<td>ACCT 512 Financial Reporting Theory</td>
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<tr>
<td>ACCT 514 Advanced Managerial Accounting</td>
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<tr>
<td>ACCT 516 Financial Analysis and Valuation</td>
</tr>
<tr>
<td>ACCT 517 Environmental Accounting and Taxation</td>
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<tr>
<td>ACCT 518 International Financial Reporting</td>
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<tr>
<td>ACCT 520 Tax Research</td>
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<tr>
<td>ACCT 525 Partnership Tax Law</td>
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<td>ACCT 530 Corporate Tax Law</td>
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<tr>
<td>ACCT 533 Corporate Tax Law II</td>
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<tr>
<td>ACCT 535 Estate and Gift Taxation</td>
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<td>ACCT 540 Taxation of Non-Profit Organizations</td>
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<tr>
<td>ACCT 545 Real Estate Tax Law</td>
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<tr>
<td>ACCT 550 Internal and Information Systems Audit</td>
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<tr>
<td>ACCT 560 Income Taxation of Trusts &amp; Estates</td>
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<tr>
<td>ACCT 565 Deferred Compensation Taxation</td>
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<td>ACCT 570 Multi-State Taxation</td>
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<tr>
<td>ACCT 575 International Taxation</td>
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<tr>
<td>ACCT 579 Personal Financial Planning</td>
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<tr>
<td>ACCT 590 Practicum/Internship</td>
</tr>
<tr>
<td><strong>Non-Accountancy Electives:</strong></td>
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<tr>
<td>Electives chosen from non-accountancy graduate courses</td>
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<tr>
<td><strong>TOTAL</strong></td>
</tr>
</tbody>
</table>

Non-Accountancy Electives must be approved by the student’s graduate advisor. Business Essentials courses in the MBA program are not available for credit towards the MSA degree requirements, nor are courses that are essentially courses in accountancy (such as MBA 522 and MBA 532).
### Course Offerings

**ACCT — ACCOUNTANCY**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACCT 502</td>
<td>Advanced Tax Topics (3-0-3)(F/S)</td>
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<tr>
<td>ACCT 505</td>
<td>Advanced Auditing</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 510</td>
<td>Advanced Financial Reporting</td>
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<tr>
<td>ACCT 512</td>
<td>Financial Reporting Theory</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 516</td>
<td>Financial Analysis and Valuation</td>
<td>3</td>
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</tbody>
</table>

**ACCT 510 Advanced Financial Reporting (3-0-3).** Study of measurement theory and its implications for asset valuation and income determination. Emphasizes development of analytical and written communication skills.

**ACCT 514 Advanced Managerial Accounting (3-0-3)(F/S).** Advanced applications of managerial accounting information for strategic management decisions. Coverage includes specialized tools for planning, operating, and control decisions such as strategic cost management, strategic performance measurement and incentive systems, and activity- and resource-based costing. Emphasis is placed on the understanding and use of state of the art managerial accounting techniques. PREREQ: ACCT 314 or MBA 532 and SCM 345 or MBA 327 or PERM/INST.


**ACCT 517 Environmental Accounting and Taxation (3-0-3).** A theoretical and practical examination of the impact of environmental considerations in financial, managerial, and tax reporting. The interdisciplinary nature of environmental study, especially environmental science and environmental law, will be the starting point for developing information. The course emphasizes oral and written communication of accounting information for decision-making.

**ACCT 518 International Financial Reporting (3-0-3).** Contemporary accounting practices of the major national economies. Includes directives of the European Community affecting financial reporting and pronouncements and activities of the International Accounting Standards Board.

**ACCT 520 Tax Research (3-0-3)(F).** Instruction in all aspects of tax research including legislative, administrative, and judicial sources; major tax services, internet-based tax research libraries; writing and negotiation skills.

**ACCT 525 Partnership Tax Law (3-0-3).** Tax meaning of partnership, formation transactions between partner and partnership; determination and treatment of partnership income; sales and exchanges of partnership interest; distributions; retirement; death of a partner; drafting the partnership agreement.

**ACCT 530 Corporate Tax Law I (3-0-3).** Tax considerations in corporate formation, distributions, redemptions, and liquidations. The accumulated earnings tax, personal holding company tax, and S corporations are included.

**ACCT 533 Corporate Tax Law II (3-0-3).** Advanced topics in corporate taxation including reorganizations, taxation of affiliated groups, and professional service corporations.

**ACCT 535 Estate and Gift Taxation (3-0-3).** Federal estate and gift taxes, including estate planning.

**ACCT 540 Taxation of Nonprofit Organizations (3-0-3)(SU).** Overview of tax issues affecting nonprofits. Topics include: qualifying for and maintaining federal tax-exempt status, the unrelated business income tax, private foundations, and charitable deductions.

**ACCT 545 Real Estate Tax Law (3-0-3).** Basis considerations, depreciation, and problems incident to the sale, exchange, and other disposition of property, including recognition and characterization concepts.

**ACCT 550 Internal and Information Systems Audit (3-0-3)(S).** Upon completion of the course, the student should have an understanding of the role of the internal and information systems audit functions, the standards by which audits are conducted, the general risks faced by any entity and its information system, the purpose of controls, the procedures and skills needed to perform audits, and be familiar with current issues facing audit professionals. Students will assume leadership roles with respect to group and team assignments. Students can only take ACCT 450 OR ACCT 550, not both. PREREQ: ACCT 350.

**ACCT 560 Income Taxation of Trusts and Estates (3-0-3).** Taxation of income of trusts and estates, with emphasis of income required to be distributed currently, equivocal distributions of income corpus, and accumulation distributions; other fiduciary tax problems, including the treatment of income in respect of decedents.

**ACCT 565 Deferred Compensation Taxation (3-0-3).** Study begins with the ERISA rules and includes changes and updates for deferred compensation to the current date.

**ACCT 570 Multi-State Taxation (3-0-3)(F).** State income tax issues and sales and use tax issues with a special focus on issues faced by multistate taxpayers.

**ACCT 575 International Taxation (3-0-3).** Multinational tax law for domestic corporations with operations abroad and nonresident citizens.

**ACCT 579 Personal Financial Planning (3-0-3)(F).** The course focuses on the tools to help individuals reach their personal financial goals. There will be five main areas of emphasis: investments, insurance coverage/asset protection, income tax planning, retirement planning and estate planning. The areas will be covered in the personal finance framework.

**ACCT 590 Practicum/Internship (3-0-3).**
College of Education

Dean: Diane Boothe
Education Building, Room 705, Mail Stop 1700
Telephone (208) 426-1611
PAX (208) 426-4365
http://education.boisestate.edu/graduate.htm/

Associate Dean: Ross Vaughn
Telephone (208) 426-1611

Associate Dean for Teacher Education and Accreditation: Ken Coll
Telephone (208) 426-1991

General Information
The College of Education is composed of seven academic departments offering one doctoral degree, 16 masters degrees and 6 graduate certificates:

Department of Bilingual Education
• Master of Education in Bilingual Education
• Master of Education in English as a Second Language

Department of Counselor Education
• Master of Arts in Counseling
• Graduate Certificate in Addiction Studies
• Graduate Certificate in Gerontological Studies

Department of Curriculum, Instruction, and Foundational Studies
• Doctor of Education in Curriculum and Instruction
• Master of Arts in Education, Curriculum and Instruction
• Master of Education in Educational Leadership
• Graduate Certificate in Secondary/K-12 Teaching

Department of Educational Technology
• Master of Educational Technology
• Master of Science in Educational Technology
• Graduate Certificate in Online Teaching
• Graduate Certificate in School Technology Coordination
• Graduate Certificate in Technology Integration Specialist

Department of Kinesiology
• Master of Kinesiology
  • Behavioral Studies
  • Biophysical Studies
  • Socio-historical Studies
• Master of Science in Exercise and Sport Studies
  • Behavioral Studies
  • Biophysical Studies
  • Socio-historical Studies
• Master of Physical Education in Athletic Administration (Cooperative with Idaho State University)
• Department of Literacy
• Master of Arts in Education, Literacy

Department of Special Education and Early Childhood Studies
• Master of Arts in Education, Early Childhood Studies
• Master of Education in Early Childhood Studies
• Master of Arts in Special Education
• Master of Education in Special Education

Application and Admission Requirements
Prospective students may apply for admission at any time. However, in order to qualify for degree-seeking status the following application materials must be received by the Graduate Admissions Office by June 30 for fall semester, or December 1 for the spring semester:

1. Application for admission. www.boisestate.edu/gradcoll
2. $55.00 application fee.
3. Official transcripts of all undergraduate and graduate course work sent directly to Graduate Admission and Degree Services at Boise State University.

4. Minimum GPA of 3.00 (on a 4.0 scale) for the last two years of undergraduate study, or an overall GPA of 3.00.

Advisors
The name of a faculty member who will serve as temporary advisor will be indicated in the letter of acceptance to the applicant. Candidates should contact this faculty member as soon as possible to plan a program of study and complete the Program Development Form. Credits taken prior to such planning are subject to the review and approval of the advisor and the Program Coordinator for that particular program or program emphasis.

Graduate Assistantships
Graduate Assistantships are available in each department in the College of Education. Awards may consist of a stipend and a fee waiver. In addition, non-resident tuition is waived for any non-resident student receiving an assistantship award. Applications must be received in the department by January 15 of each year. Typical assignments include research assistants, teaching assistants, or assignments related to specific areas. Graduate assistantships are awarded for one year and may be renewed for one additional year.
Department of Bilingual Education

Chair: Roberto E. Bahruth
Education Building, Room 413, Mail Stop 1725
Telephone (208) 426-3680
e-mail: robertobahruth@boisestate.edu

Graduate Faculty: Roberto Bahruth, Viviana Lopez, Elva Reza-Lopez, Arturo Rodriguez

Graduate Degrees Offered
- Master of Education in Bilingual Education
- Master of Education in English as a Second Language

General Information
The Department of Bilingual Education offers a master of education degree in bilingual education (Spanish-English) and in English as a second language. These degree programs provide additional training for teachers who work with, or are preparing to work with English language learners. The programs meet Idaho state standards for bilingual education and ESL endorsements. ESL participants are required to have at least 4 credit hours of a foreign language. This program does not provide foreign language classes.

Bilingual Education
To be a bilingual teacher is to be prepared to teach all content area subjects in two languages, Spanish and English, and to teach them in the context of both the Latino and Anglo cultures. Bilingual teachers must be fluent in Spanish and English. The four major goals of bilingual education are as follows:
- To teach English to non-English-speaking students or students learning English;
- To maintain the students at grade level in the content subjects while they are learning English;
- To ensure students meet the same rigorous academic standards that all other students meet; and
- To prepare them to meet requirements so that they can graduate from high school on time.

English as a Second Language (ESL)
The primary purpose of English as a Second Language (ESL) is to teach students English, enabling them to succeed in schools where English is the language of instruction. ESL is not designed to do the work of bilingual education, that is, teach all of the content subjects in a way that will maintain students at grade level. It is designed primarily to teach English by using vocabulary and structures commonly found in the content area classes.

Program Requirements
The courses are all structured in terms of learning outcomes, and students will be assisted in achieving those outcomes through active, performance-based pedagogical strategies.

1. Learning is constructive/developmental process.
2. The acquisition through application of content knowledge is essential.
3. Teaching is a collegial act and required collaboration.
4. Education is essentially democratic, ergo political act.
5. Providing Spanish language competence.

In this program, educators will examine multiple points of view, multiple theories, and practical applications that are grounded in a plurality of concerns, in order to create excellent classroom and other learning environments to educate a widely diverse student population. While teachers will be exposed to current theory, research, and practice, they will also spend a large proportion of their time constructing knowledge for themselves, with faculty guidance, through applied learning projects. In addition, they will participate in a capstone course, which is the culminating activity required to be taken after all course work has been completed.

An electronic written assessment will be provided to new students in the M.Ed. in Bilingual Education during the first weeks of classes. Students will have twenty minutes to complete the essay. A final electronic written assessment will be made available during the first weeks of classes to all students completing the M.Ed. in Bilingual Education.

Special Notice
Cost per 3-credit-hour class is the same for Idaho residents and non-residents: $957. A Federal grant supports a limited number of scholarships for this program. Contact the Boise State University Bilingual Education Office for information.
Master of Education in
Bilingual Education

Graduate Program Coordinator: Roberto E. Bahruth
Education Building, Room 413, Mail Stop 1725
Telephone (208) 426-3680
e-mail: robertobahruth@boisestate.edu

Degree Requirements

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ED-CIFS 506 Issues in Education</td>
<td>4</td>
</tr>
<tr>
<td>ED-BLESL 500 The Bilingual/ESL Curriculum: Creating, Planning, Implementation</td>
<td>3</td>
</tr>
<tr>
<td>ED-BLESL 501 Culturally Diverse Learners</td>
<td>3</td>
</tr>
<tr>
<td>ED-BLESL 502 Methods of Teaching ESL: Maximizing Innovative Pedagogical Approaches to Teaching ESL</td>
<td>3</td>
</tr>
<tr>
<td>ED-BLESL 503 Applied Theoretical Foundations of Bilingual Education/ESL and Multiculturalism</td>
<td>3</td>
</tr>
<tr>
<td>ED-BLESL 504 Literacies for Bilingual and English Language Learners</td>
<td>3</td>
</tr>
<tr>
<td>ED-BLESL 505 Multicultural Literature: Promoting Social Justice</td>
<td>3</td>
</tr>
<tr>
<td>ED-BLESL 507 Parental Involvement: Building a Community of Bilingual/ESL Learners</td>
<td>3</td>
</tr>
<tr>
<td>ED-BLESL 508 Advanced Theories of Second Language Acquisition OR ED-LTCY 548 Psycholinguistics &amp; Literacy</td>
<td>3</td>
</tr>
<tr>
<td>ED-BLESL 509 Field Experience in Bilingual Classrooms</td>
<td>1</td>
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<tr>
<td>ED-BLESL 511 Contemporary Issues in Bilingual Education</td>
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<tr>
<td>ED-BLESL 600 Assessment <a href="P/F">Capstone Course</a></td>
<td>1</td>
</tr>
</tbody>
</table>

TOTAL 32

Note: This master’s program is for both elementary and secondary teachers P-12. The Bilingual Education program uses only the Spanish and English languages and the Latino and Anglo cultures. It requires a student to be bilingual in Spanish and English prior to entering the program. Completion of the Bilingual Education program does not qualify the candidate for state certification. However, these courses may be used toward certification renewal or endorsement.

Master of Education in
English as a Second Language

Graduate Program Coordinator: Roberto E. Bahruth
Education Building, Room 413, Mail Stop 1725
Telephone (208) 426-3680
e-mail: robertobahruth@boisestate.edu

Degree Requirements

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED-CIFS 506 Issues in Education</td>
<td>4</td>
</tr>
<tr>
<td>ED-BLESL 500 The Bilingual/ESL Curriculum: Creating, Planning, Implementation</td>
<td>28</td>
</tr>
<tr>
<td>ED-BLESL 501 Culturally Diverse Learners</td>
<td>3</td>
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<tr>
<td>ED-BLESL 502 Methods of Teaching ESL: Maximizing Innovative Pedagogical Approaches to Teaching ESL</td>
<td>3</td>
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<tr>
<td>ED-BLESL 503 Applied Theoretical Foundations of Bilingual Education/ESL &amp; Multiculturalism</td>
<td>3</td>
</tr>
<tr>
<td>ED-BLESL 505 Applied Linguistics: Nurturing Communicative Competence</td>
<td>3</td>
</tr>
<tr>
<td>ED-BLESL 506 Multicultural Literature: Promoting Social Justice</td>
<td>3</td>
</tr>
<tr>
<td>ED-BLESL 507 Parental Involvement: Building a Community of Bilingual/ESL Learners</td>
<td>3</td>
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<tr>
<td>ED-BLESL 508 Advanced Theories of Second Language Acquisition OR ED-LTCY 548 Psycholinguistics &amp; Literacy</td>
<td>3</td>
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<tr>
<td>ED-BLESL 509 Field Experience in ESL Classrooms</td>
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<tr>
<td>ED-BLESL 511 Contemporary Issues in Bilingual Education</td>
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<tr>
<td>ED-BLESL 600 Assessment <a href="P/F">Capstone Course</a></td>
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</tbody>
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TOTAL 32

Note: This master’s program is for both elementary and secondary teachers P-12. The ESL program uses primarily the Spanish language for examples but is applicable to all non-English languages. It does not require a student to be bilingual. Completion of the ESL program does not qualify the candidate for state certification. However, these courses may be used toward certification renewal or endorsement.
Course Offerings
ED-BLESL — EDUCATION-BILINGUAL EDUCATION

ED-BLESL 500 THE BILINGUAL/ESL CURRICULUM: CREATING, PLANNING, IMPLEMENTATION (3-0-3)(F/S). For teachers preparing to teach bilingual and/or English language learners. Theory and best practices of planning and creating an effective curriculum for bilingual and ESL classrooms. Participants examine both planned curriculum based upon specific objectives, and generative curriculum based on learners’ needs, experiences and interests. Students will design a model curriculum for a bilingual and/or ESL classroom.

ED-BLESL 501 CULTURALLY DIVERSE LEARNERS (3-0-3)(F/S). Through the use of ethnographic tools, students will gain a better understanding of cultural and linguistic issues in their schools, local, and global communities.

ED-BLESL 502 METHODS OF TEACHING ESL: MAXIMIZING INNOVATIVE PEDAGOGICAL APPROACHES TO TEACHING ESL (3-0-3)(F/S). Pedagogy of teaching ESL that will maximize language and literacy acquisition. Students will learn how to develop content subject material that is pedagogically responsible to English language learners and culturally diverse students by learning pedagogical scaffolds that place students at the center of the learning process.

ED-BLESL 503 APPLIED THEORETICAL FOUNDATIONS OF BILINGUAL EDUCATION/ESL AND MULTICULTURALISM (3-0-3)(F/S). The study and analysis of successful bilingual education, English as a Second Language, and Multicultural program practices. Students research and critique programs that demonstrate the characteristics of successful bilingual, ESL, and multicultural classrooms (i.e., teachers’ ability to articulate pedagogy used in the classroom).

ED-BLESL 504 LITERACIES FOR BILINGUAL AND ENGLISH LANGUAGE LEARNERS (3-0-3)(SU). For teachers in classrooms designated as Spanish and English bilingual classrooms. Participants learn the processes and effective strategies for teaching reading and writing to bilingual and English language learners. Taught in Spanish and English.

ED-BLESL 505 APPLIED LINGUISTICS: NURTURING COMMUNICATIVE COMPETENCE (3-0-3)(SU). A course to assist teachers in learning the differences and similarities between the Spanish and English languages in order to teach English as a language of instruction and to promote communicative competence among English language learners. Explorations of the intersections of language, with race, class, gender and ethnicity.

ED-BLESL 506 MULTICULTURAL LITERATURE: PROMOTING SOCIAL JUSTICE (3-0-3)(F/S). Students examine multicultural literature by engaging in critical literacy, substantive discussion, reflective writing, visual representation, and dramatic enactment. A main theme throughout this class is how to use the collection of literature as a tool for curriculum transformation, to promote social justice and encourage empowerment. Students will learn to take the words from the page to inform and transform their worlds.

ED-BLESL 507 PARENTAL INVOLVEMENT: BUILDING A COMMUNITY OF BILINGUAL/ESL LEARNERS (3-0-3)(F/S/SU). Participants critically examine why school-community partnerships are particularly valuable in multicultural settings. They examine texts of parental involvement in schooling and actual practices and address questions of power relations, politics of exclusion and the privilege of race, gender, class, and culture. Students explore practices that respect diversity and honor all parents, students, community members, and teachers.

ED-BLESL 508 ADVANCED THEORIES OF SECOND LANGUAGE ACQUISITION (3-0-3)(F/S/SU). Psycholinguistic processes and strategies by which readers and writers construct and reconstruct the message of a text. Application of theoretical conclusions to the teaching practices. Exploration and discussion of major theoretical arguments from current theorists and the pedagogical implications of second language acquisition research that focuses on language, literacy, and learning. Participants will apply knowledge to teaching primary and secondary children the English language.

ED-BLESL 509 FIELD EXPERIENCE IN BILINGUAL CLASSROOMS (0-3-1)(F/S). A partnership teaching experience with a bilingual teacher in an exemplary bilingual classroom. Participants spend a minimum of fifty clock hours working side by side with the host teacher.

ED-BLESL 510 FIELD EXPERIENCE IN ESL CLASSROOMS (0-3-1)(F/S). A partnership teaching experience with an English as a second language teacher in an exemplary ESL classroom. Participants spend a minimum of fifty clock hours working side by side with the host teacher.

ED-BLESL 511 CONTEMPORARY ISSUES IN BILINGUAL EDUCATION/ESL (2-0-2)(F/S/SU). Current issues and their political ramifications in the fields of bilingual/multicultural education, and English as a second language. Critique of current trends in education and creating an awareness of how teachers can enhance their advocacy for students, parents and stakeholders.
Department of Counselor Education

Chair: Bobbie Birdsall
Education Building, Room 611, Mail Stop 1721
Telephone (208) 426-1219 or 426-3204
e-mail: bbirdsa@boisestate.edu

Graduate Faculty: Bobbie Birdsall, Kenneth Coll, Martin Michael Cutler, Diana Doumas

Adjunct Graduate Faculty: Mary L. Ensley, Brenda Freeman, Susan Reuling Furness, Tim Furness, Margaret Miller (Emerita), Anne Marie Nelson (Emerita)

Graduate Degrees Offered
- Master of Arts in Counseling
- Graduate Certificate in Addiction Studies
- Graduate Certificate in Gerontological Studies

General Information
The Master of Arts in Counseling prepares individuals in counseling related careers. The program is accredited by the National Council for the Accreditation of Teacher Education (NCATE) and the Northwest Commission of Colleges and Universities (NWCCU). The program meets the State Board of Occupational Licenses’ criteria for licensure as a professional counselor. The school program is accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP).

Course work is offered in sequence, primarily during evenings and weekends of fall and spring semesters, with students enrolling in six to nine credits each semester and enrolling in six to seven credits offered in the daytime and evening during the summer sessions.

Application and Admission Requirements
In addition to meeting the admission requirements and deadlines of the Graduate College, the student must apply for admission to and be accepted by the Counseling Program Admissions Committee. Enrollment is competitive with a new cohort beginning the Program each fall.

Submit in one packet, to the Counseling Department Admissions Committee (annual deadline is February 1):
- letter of application describing your professional experiences as they support your desire to be a school or addictions related counselor, specific career goals, and reasons for your interest in this program. Include in the letter your vision about the role of a school or addictions related counselor;
- up-to-date resume;
- complete post-secondary transcripts (noncertified copies accepted);
- three current, sealed letters of reference supporting your qualifications for a counseling program and for graduate work.

An on-campus pre-admission interview and writing sample are required of all finalists. When attendance is an extreme hardship for the applicant, special arrangements may be made (such as a conference telephone interview or alternate site interview). No other pre-admission testing is required. A criminal background check prior to placement in a school setting is required of all students, and an Adjudication statement is required of each student upon acceptance and at several check points in the program.

Master of Arts in Counseling

Graduate Program Coordinators:
Bobbie Birdsall, School Counseling
Education Building, Room 612
Telephone (208) 426-3204
e-mail: bbirdsa@boisestate.edu

Martin Cutler, Addiction Counseling
Education Building, Room 610
e-mail: martin.cutler@boisestate.edu

General Information
The Master of Arts in Counseling degree consists of a minimum of sixty (60) semester hours of course work designed to prepare professionals to counsel in a variety of settings. Courses promote the acquisition of the knowledge and skill development in the eight core areas listed in CACREP Standards: Professional Identity, Social and Cultural Diversity, Human Growth and Development, Career Development, Helping Relationships, Group Work, Assessment, and Program Evaluation. Specific course work in each of the eight components is listed below. Electives offered ad hoc or in rotation are designed to maximize flexibility while reflecting current training trends in counseling. The student’s culminating activity includes a written comprehensive exam and videotaped evidence of skill and theory integration supported by a comprehensive portfolio demonstrating professional growth and counseling knowledge with culturally appropriate awareness. Each student works closely with a Program Advisor and a Supervisory Committee in preparing the portfolio. During one semester of the Program each student counselor is expected to participate in a group counseling experience with a licensed counselor not involved in Program instruction.

Students have considerable latitude in selecting internship sites to maximize their experience in line with specific career goals with at least 700 hours of internship experience. Students incorporate counseling theory and knowledge into an increasingly advanced application of skills throughout the program, fine tuning an individualized counseling approach through audio and video taped interviews in counseling labs, participation in counseling practica using one-way mirrors and video taping, and supervised experience in the community, school, and student outreach sites.

The 60-credit Master of Arts in Counseling offers the core of counseling knowledge and skills that allows graduates to enter nearly any branch of the counseling profession. Current areas of concentration include school counseling and addiction counseling.
## Degree Requirements

### Master of Arts in Counseling

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<thead>
<tr>
<th>Course Number and Title</th>
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<tr>
<td><strong>Core</strong></td>
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<tr>
<td>COUN 501 Foundations in Counseling</td>
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<td>COUN 502 Counseling Theories and Applications I</td>
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<td>COUN 504 Measurement and Evaluation in Counseling</td>
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<td>COUN 505 Counseling Theories and Applications II</td>
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<td>COUN 506 Lifespan Development</td>
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<tr>
<td>COUN 507 Career Development and Vocational Counseling</td>
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<tr>
<td>COUN 508 Special Needs, Ethics and Legal Issues in Counseling</td>
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<td>COUN 509 Culturally Aware Counseling</td>
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<td>COUN 511 Family Systems</td>
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<td>COUN 512 Statistics and Research Design</td>
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<td>COUN 513 Group Counseling</td>
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<td>COUN 516 Counseling Practicum II</td>
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<td>COUN 526 Counseling Internship I</td>
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<td>COUN 528 Counseling Internship II</td>
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<td>COUN 547 Chemical Addiction and Violence Prevention</td>
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<td>COUN 550 Diagnosis, Assessment and Treatment Planning</td>
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<td>COUN 556 Seminar: Counseling with Special Populations</td>
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<td>COUN 568 Seminar: Professional Counseling</td>
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<td>COUN 592 Portfolio</td>
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<td><strong>Additional Specialty Courses</strong></td>
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<td><strong>TOTAL</strong></td>
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</tr>
</tbody>
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### Graduate Certificate in Addiction Studies

(See Section on Interdisciplinary Programs)

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### Graduate Certificate in Gerontological Studies

(See Section on Interdisciplinary Programs)

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## Course Offerings

### COUN — COUNSELING

**COUN 501 FOUNDATIONS IN COUNSELING (3-0-3)(F).** Provides an introduction to professional, ethical, legal, theoretical, cultural, social, and practical aspects of counseling. Students examine the roles and responsibilities of counselors; professional organizations and associations; and professional preparation standards. Historical, cultural, and social contexts along with emerging professional issues and directions are included. PREREQ: Admission to the Counseling Program.

**COUN 502 COUNSELING THEORIES AND APPLICATIONS I (2-2-3)(F).** Examine historical and contemporary theories of counseling, overview of counseling processes in a pluralistic society, and acquire counseling skills through videotaped and role-played practice related to major approaches. Specified structure and activities within this course meet the CACREP accreditation requirement of 10 hours of Group Counseling Experience. PREREQ: Admission to the Counseling Program.

**COUN 504 MEASUREMENT AND EVALUATION IN COUNSELING (3-0-3)(SU).** Students will access theory and practice of standardized test development and procedures; applications and limitations of standardized tests; techniques of administering individual/group tests and of interpreting assessment instruments and profiles; and communication strategies with clients, parents, school personnel, and relevant professionals. PREREQ: COUN 502 or similar graduate statistics course.

**COUN 505 COUNSELING THEORIES AND APPLICATIONS II (2-2-3)(S).** Examine historical and contemporary theories of counseling including an overview of counseling process and practice. Acquire effective and ethical counseling skills through videotaped and role-played practice related to major approaches. As a culminating activity each student will develop and articulate an individualized perspective toward counseling in a pluralistic society. PREREQ: COUN 501 and COUN 502.

**COUN 506 LIFESPAN DEVELOPMENT (2-0-2)(F/SU).** Examine theoretical constructs related to developmental processes, both typical and atypical, and analyze developmentally based behavior patterns across the age spectrum (birth to death) through a variety of contemporary cultures and beliefs.

**COUN 507 CAREER DEVELOPMENT AND VOCATIONAL COUNSELING (3-0-3)(F/SU).** Provides an overview of the major career development theories, vocational guidance and occupational/educational information sources and systems. Career development program planning, resources, computerized information systems, and evaluation will be included. Emphasis will be placed on how career counseling and vocational guidance are practiced by the school counselor. PREREQ: Admission to the Counseling Program or Masters in Counseling.

**COUN 508 SPECIAL NEEDS, ETHICS, AND LEGAL ISSUES IN COUNSELING (3-0-3)(F/SU).** Information on laws, regulations, techniques and interventions needed by professional counselors when working with individuals with disabilities or other challenges. Examination of ethical, legal, and professional issues involved in counseling in all settings and populations. Analysis of questionable situations and practitioner decision-making based on the ethical standards of the American Counseling Association and laws governing professional counselors. PREREQ: COUN 505 or PERM/INST.

**COUN 509 CULTURALLY AWARE COUNSELING (3-0-3)(S).** Examine the impact of cultural diversity among races, ethnic groups, genders, and social classes on personality, value systems and the counseling relationship with an understanding of societal changes and trends, human roles in societal subgroups, social mores, and differing lifestyles with special attention to the influence of cultural and social change on family relationships, gender equity, and individual adjustment. Examine one’s own attitudes, behaviors, perceptions, and biases to develop a culturally aware approach to teaching, counseling, and/or administration. PREREQ: COUN 502 or PERM/INST.
COUN 511 FAMILY SYSTEMS (2-2-3) (F/SU). Examine theoretical constructs related to the family structure, climate, and interactions and develop skills for working with families from diverse backgrounds, including families with special needs children. Opportunities are presented for student participation in parenting skills classes and family systems work. PREREQ: COUN 505 and COUN 509.

COUN 512 STATISTICS AND RESEARCH DESIGN (2-2-3) (S). Students will gain the fundamentals of statistics as they analyze counseling and educational data with emphasis on the review and interpretation of research literature (particularly in the areas of child development and psychotherapy), experience the role of computers in statistical analysis, and discover the relationships among measurement, design, and statistics. PREREQ: COUN 501.

COUN 513 GROUP COUNSELING (2-2-3) (SU). Students will focus on the concepts and skills necessary to understand and lead counseling groups in schools and other settings. PREREQ: Completion of COUN 516 with grade of at least B.

COUN 514 COUNSELING PRACTICUM I (2-1-2) (F). Review theory and culturally competent skills integration prior to participating in closely supervised counseling experiences through modeling, peer counseling, ethical review, and audio and/or video taping. PREREQ: COUN 505 with grade of at least B.

COUN 516 COUNSELING PRACTICUM II (1-2-2) (S). Participation in closely supervised counseling experiences (audio and/or video taping required) with emphasis in student’s area of specialization or interests focusing on ethical decision-making and culturally competent strategies. PREREQ: COUN 514 with a grade of at least B.

COUN 517 FAMILY ISSUES IN LATER LIFE (3-0-3) (Even years). Overview of gerontology presented by examining major issues related to family issues of aging. Content includes development and transition in later life, wellness in later life, common issues, and appropriate family counseling and consulting strategies.

COUN 518 COUNSELING ISSUES WITH OLDER ADULTS (3-0-3) (Odd years). Focus on intervention strategies for common later life impairments. Application of theory, research, and practice to gerontological counseling and wellness.

COUN 519 ELEMENTARY SCHOOL COUNSELING (2-0-2) (Odd years). Explore evolving roles and responsibilities of elementary school counselors including curriculum development, parent and teacher consultation, developmentally appropriate interventions, emergency procedures, ethical and legal considerations, documentation, referral, and counseling skills with children from diverse backgrounds. Analyze the organization and implementation of the Idaho Comprehensive School Counseling Program Model while observing in an elementary school setting. PREREQ: COUN 505 and COUN 530 or Masters in Counseling.

COUN 520 SECONDARY SCHOOL COUNSELING (2-0-2) (Even years). Explore the evolving roles and responsibilities of high school counselors including curriculum development, parent and teacher consultation, developmentally appropriate interventions for diverse populations, emergency procedures, ethical and legal considerations, documentation, referral, job/school partnerships, and life span planning. Analyze the organization and implementation of the Idaho Comprehensive School Counseling Program Model while observing in a secondary school setting. PREREQ: COUN 505 and COUN 530 or Masters in Counseling.

COUN 525 CONSULTATION (1-2-2) (F/SU). Knowledge and skills consulting with individuals, groups, and systems. Practices and procedures of consultation where students demonstrate relevant skills in both simulated and internship-based situations. PREREQ: COUN 505 and COUN 509 or PERM/INST.

COUN 526 COUNSELING INTERNSHIP I (1-4-3) (F). Students apply their skills, training, and knowledge with increasing autonomy as primary supervision shifts toward an onsite counseling supervisor. Students are observed and evaluated as they engage in a wide range of counseling-related activities. (Pass/Fail.) PREREQ: COUN 516 with grade of at least B. COREQ: COUN 566.

COUN 527 APPLIED RESEARCH (1-0-1) (F). Methods and evaluation of counseling and educational research with the emphasis on individual completion of a research project in cooperation with student’s advisor or director of the study. PREREQ: COUN 512 or equivalent graduate statistics course.

COUN 528 COUNSELING INTERNSHIP II (1-4-3) (F/S). In this culminating component of internship, student assumes all functions of a counselor in his/her site while under site-based (primary) and university supervision, providing the range of counseling services from crisis intervention to promotion of personal development and environmental enhancement. (Pass/Fail.) PREREQ: Recommendation of COUN 526 Supervisors. COREQ: COUN 568.

COUN 529 MIDDLE SCHOOL COUNSELING (3-0-2) (F). Explore evolving roles and responsibilities of middle school counselor including curriculum development, parent and teacher consultation, developmentally appropriate interventions for diverse populations, emergency procedures, ethical and legal considerations, documentation, and referral. The unique needs, stresses, and developmental concerns of this age group are included with emphasis on the organization and implementation of the Idaho Comprehensive School Counseling Program Model while observing in a middle/junior high school setting. PREREQ: COUN 505 and COUN 530 or Masters in Counseling.

COUN 530 MANAGING DEVELOPMENTAL SCHOOL PROGRAMS (2-0-2) (SU). Students examine program theory in educational settings to create, implement, manage, evaluate, and promote comprehensive counseling and educational curricula for all students. This course provides the framework for COUN 519, COUN 520, and COUN 529 and emphasizes the "Idaho Comprehensive Guidance and Counseling Model." PREREQ: COUN 505 or Masters in Counseling.

COUN 531 COUNSELING PRACTICUM INTENSIVE (1-4-3) (F). A supervised skill review and experientially intensive practicum that may be required of a student needing additional time on skill development before advancing to Internship. PREREQ: Permission of Department Chair and faculty.

COUN 532 COUNSELING INTERNSHIP INTENSIVE (1-4-3) (F). A supervised skill review and experientially intensive internship that may be required of a student needing additional time on skill development before enrolling in COUN 528 Counseling Internship II. PREREQ: PERM/CHAIR.

COUN 541 (MHLTHSCI 544) ADDICTION AND THE FAMILY SYSTEM (3-0-3) (Even years). Examination of multigenerational impact of addiction (drugs, alcohol, work, religion, internet, gambling etc.) on the family system. In addition to dysfunctional roles developed to cope with addiction, class also compares and contrasts communication strategies and parenting styles of unhealthy and healthy family systems. Risk and protective factors, stages of change, and continuum of care from prevention, intervention, treatment and aftercare are addressed. May be taken for COUN or MHLTHSCI credit, but not both. PREREQ: HLTHTH 109 or COUN/MHLTHSCI 545 or PERM/INST.

COUN 543 (MHLTHSCI 543) ASSESSING AND MANAGING ADOLESCENT SUBSTANCE ABUSE AND MENTAL HEALTH RISKS (3-0-3) (Odd years). Introduction to comprehensive adolescent risk assessment and treatment planning. Examination of current and available comprehensive adolescent assessments, current and available specialized assessments, report writing approaches and effective treatment processes. May be taken for COUN or MHLTHSCI credit, but not both. PREREQ: Graduate standing.

COUN 544 (MHLTHSCI 564) SCREENING AND ASSESSMENT OF ALCOHOL AND DRUG PROBLEMS (3-0-3) (F). Emphasis on screening and assessment procedures for substance abuse. Application of current interventions and screening processes. Legal, social, ethical, and health implications will be investigated. May be taken for COUN or MHLTHSCI credit, but not both. PREREQ: HLTHTH 109 or COUN/MHLTHSCI 545 or PERM/INST.

COUN 545 (MHLTHSCI 545) FOUNDATIONS OF CHEMICAL DEPENDENCY (3-0-3) (F). An overview of the pharmacological and physiological effects of chemical dependency. Special attention is given to how substance abuse impacts brain chemistry and how brain chemistry impacts substance abuse. May be taken for COUN or MHLTHSCI credit, but not both. PREREQ: PERM/INST.

COUN 546 (MHLTHSCI 565) ASSESSMENT AND CASE MANAGEMENT OF ALCOHOL AND DRUG PROBLEMS (3-0-3) (F). Emphasis on case management techniques including legal, social, ethical, and health implications. May be taken for COUN or MHLTHSCI credit, but not both. PREREQ: COUN 544 or MHLTHSCI 564 or PERM/INST.

COUN 547 (MHLTHSCI 547) CHEMICAL ADDICTIONS AND VIOLENCE PREVENTION (3-0-3) (SU). Introduction to professional, ethical, legal, and practical aspects of chemical addictions and violence prevention (primary and secondary) in the schools and other settings (e.g., adolescent treatment). Examination of current research and available curriculum models, current identification and intervention approaches, and effective prevention programming. Historical and social contexts (e.g., Safe and Drug Free Schools and communities initiative) also included. May be taken for COUN or MHLTHSCI credit, but not both. PREREQ: Graduate standing.
COUN 550 (MHLTHSCI 568) DIAGNOSES, ASSESSMENT, AND TREATMENT PLANNING (2-0-2)(F). Examination of concepts of “mental disorders,” DSM classification systems, and the diagnostic benefits and diagnostic problems inherent in such systems. An introduction and overview of the major psychopathological syndromes of adolescents and adults (especially in the area of Co-morbidity of Substance Abuse/Dependence and other DSM IV diagnoses) to facilitate appropriate use of assessment-diagnostic–treatment links (including treatment planning). May be taken for COUN or MHLTHSCI credit, but not both. PREREQ: PERM/INST.

COUN 551 PSYCHOPHARMACOLOGY WITH OLDER ADULTS (1-0-1) (SU)(Even years). Examination of common psychopharmacology issues with older adults, including medications for anxiety and depressive disorders, dementia. Drug combinations and interactions included.

COUN 552 SPIRITUALITY AND COUNSELING (2-0-2)(S)(Even years). Investigation of the role that spirituality plays in the well-being of clients and counselors including the extent to which the spiritual dimension affects personal development, mental and emotional health, behavioral competence and responsibility, and a sense of well-being. Spiritual experiences, beliefs, and practices found among various cultures will be explored as well as religious responses to universal questions about human life. Ethical issues regarding counseling and spirituality will be included.

COUN 555 GRIEF AND LOSS COUNSELING (1-0-1)(SU)(Even years). Explores the grieving process people experience after the death of a loved one. It also focuses on the losses and trauma people experience during the dying process. Much of the content will also focus on losses people experience throughout their lives.

COUN 557 PLAY THERAPY (1-0-1)(SU)(Odd years). Play therapy will be viewed from the perspective of understanding the meaning of play in children’s lives and the stages of play in the therapeutic process with adjusted and maladjusted children. Guidelines for determining therapeutic progress in play therapy will be reviewed. The necessary characteristics and the role of the play therapist in the therapeutic experience will be examined.

COUN 558 DEPRESSION (1-0-1)(S). Examines depression as both an academic subject and personal expression of mood associated with health and psychological problems. Assesses the symptoms, causes and related treatments for the range of depressive related problems from situational based depression and grief reactions to major clinical depression and bipolar disorder.

COUN 559 FEARS AND PHOBIAS (1-0-1)(F). An overview of the symptoms and underlying causal factors associated with the range of anxiety-based problems. A continuum of severity is presented across the normal impact of stress to severe “anxiety disorders” (panic, phobias, obsessive-compulsive, generalized, post-traumatic, and acute stress). Anxiety based problems are analyzed in terms of the interactions between behavior, affect, somatic, interpersonal and cognitive factors that operated in a cyclical fashion.

COUN 566 SEMINAR: COUNSELING WITH SPECIAL POPULATIONS (0-1-1)(F/S). Discussion of and research into the role of ethical and culturally competent counseling with special populations in schools and agency settings, including Individual Developmental Education Act (IDEA), American Disabilities Act (ADA), and Section 504 Regulations. COREQ: COUN 526.

COUN 567 (MHLTHSCI 567) CLINICAL SUPERVISION PRINCIPLES AND PRACTICE (1-0-1)(SU)(Odd years). Theory and skill development for practitioners who are or will be supervising interns and/or professionals in school, agency, and other settings. Topics include ethical issues in clinical supervision, models and best practices, documentation, and troubleshooting problematic dynamics. May be taken for COUN or MHLTHSCI credit, but not both. PREREQ: PERM/INST.

COUN 568 SEMINAR: PROFESSIONAL COUNSELING (0-1-1)(F/S). Discussion and research into the evolving culturally competent role of professional counselors in all settings, emphasizing ethical decision-making and licensure and certification considerations. COREQ: COUN 528.

COUN 571 (MHLTHSCI 571)(SOCWRK 571) FUNDAMENTALS OF HEALTHY AGING (3-0-3)(F). Overview of gerontology presented by examining major issues related to aging. Content includes theories of aging; the impact of an aging population; and future implications at local, national, and international levels. May be taken for COUN, MHLTHSCI or SOCWRK credit, but not more than once.

Department of Curriculum, Instruction and Foundational Studies

Chair: Jennifer Snow-Gerono
Education Building, Room 408, Mail Stop 1745
Telephone (208) 426-2260
e-mail: jennifersnow@boisestate.edu

Graduate Faculty: Holly Anderson, Jonathan Brendetur, Kathleen Budge, Sara Fry, Philip Kelly, Rickie Miller, Louis Nadelson, Richard Osghuthorpe, William Parrett, Lawrence Rogien, Ted Singletary, Jennifer Snow-Gerono, Keith Thiede, Scott Willison

Adjunct Graduate Faculty: Wilma Jones, Kevin Laughlin, Dan Prinzing

Graduate Degrees Offered

• Doctor of Education in Curriculum and Instruction
• Master of Arts in Education, Curriculum and Instruction
Option: Physical Education Pedagogy
• Master of Education in Educational Leadership
• Graduate Certificate in Secondary/K-12 Teaching

Doctor of Education in Curriculum and Instruction

Program Coordinator: Keith Thiede
Education Building, Room 215, Mail Stop 1745
Telephone (208) 426-1278
FAX (208) 426-4006
e-mail: keiththiede@boisestate.edu

General Information

The doctoral program in curriculum and instruction, leading to an Ed.D. degree, is designed to develop graduates who will be effective leaders in educational improvement. The course work provides students with the basis for a thorough understanding of what schools are and can be, insights into the complexities of teaching and learning, and collaborative opportunities to work towards making a measurable and positive effect upon current education programs and student learning.

Application and Admission Requirements

Prospective students may apply for admission at any time. The admission process has two components: admission to the Graduate College and acceptance into the doctoral program.

Applicants must submit the following materials to the Graduate Admissions Office:

1. Application for admission (available inside the current graduate catalog or at www.boisestate.edu/gradcoll);
2. Official scores from the verbal, quantitative, and analytical reports of the Graduate Record Examination. The GRE must have been taken within seven years of the application date.
3. Minimum GPA of 3.0 on a 4.0 scale for all previous graduate work; and,
4. Official transcripts for all course work indicating the completion of a Master’s degree or the functional equivalent.

At the same time, applicants must submit the following materials to the College of Education Doctoral Program Coordinator:

1. A letter of application which includes
   - A description of professional experiences and the relevance of those experiences to doctoral study in education
   - A statement of career goals
   - A statement of interest in a particular area of specialization (i.e., bilingual education, counselor education, curriculum and instruction, early childhood education, educational leadership, educational technology, kinesiology, literacy, mathematics education, special education)
2. A current resume or vitae.
3. Three letters of reference attesting to the applicant’s commitment to doctoral study in education, professional effectiveness, potential for influencing education, scholarly abilities and dispositions, personal and professional integrity, and any other information that will help the selection committee make an informed decision.
4. Three letters of reference attesting to the applicant’s commitment to doctoral study in education, professional effectiveness, potential for influencing education, scholarly abilities and dispositions, personal and professional integrity, and any other information that will help the selection committee make an informed decision.

The Doctoral Management Committee will review the materials submitted, make them available to other interested graduate faculty for analysis, and may schedule interviews with applicants. After arriving at a decision for each candidate, the committee recommends to the Graduate College Dean those who should be admitted. The arriving at a decision for each candidate, the committee recommends to the Graduate College Dean those who should be admitted.

The application deadlines are February 15 for summer semester, April 15 for fall semester, and September 15 for spring semester.

Transfer Credits

Doctor of Education students may transfer up to 21 credits, 15 of which may be taken at other institutions and apply those credits toward a graduate degree. However, the courses must be consistent with the program of study planned by the student and the supervisory committee. In addition, the student must have taken the courses at an accredited institution and must have received—in each course—a grade no lower than B.

Graduate Assistantships

Any student qualifying for admission may apply for one of a limited number of graduate assistantships offered each year. Awards consist of a stipend and fee waiver for fall and spring semesters, plus a six-credit fee waiver for summer school. Graduate assistantships are awarded on an annual basis and must be renewed yearly by reapplying for the position. In all cases GAs must register for a minimum of 9 credits during the regular academic year. To be considered, applications must be submitted to the Teacher Education Graduate Programs Coordinator by March 1. Typical assignments involve teaching undergraduate Teacher Education courses, supervising student teachers, serving as research assistants for graduate faculty, or a combination of activities.

Program and Dissertation Advisors

Students will have program and dissertation advisors as they progress towards their degree. However, during the first term of the doctoral program, the Summer Residency Faculty will serve as unofficial advisors answering questions about the program and assisting students in making connections with graduate/doctoral faculty who may be willing and appropriate as program advisors. It is recommended that students determine a program advisor and committee members no later than the spring semester of the first year of study. The choice of advisor will be based on the shared scholarly interests and compatible educational philosophies of student and faculty. Students may change advisors, and it is not uncommon for students to have a program advisor and then when admitted to candidacy switch to a different advisor for the dissertation.

Degree Requirements

The program has five components: Curriculum and Instruction, Comprehensive Examination, Research, Cognate, and Dissertation. Specific courses in each component are listed below. Each doctoral student will develop a program plan in consultation with his/her advisor and program committee.

### Doctor of Education in Curriculum and Instruction

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Curriculum and Instruction</strong></td>
<td></td>
</tr>
<tr>
<td>ED-CIFS 610 The American Culture and the Context of Schooling</td>
<td>3</td>
</tr>
<tr>
<td>ED-CIFS 611 School Culture and the Problems of Change</td>
<td>3</td>
</tr>
<tr>
<td>ED-CIFS 660 Learning and Cognition</td>
<td>3</td>
</tr>
<tr>
<td>ED-CIFS 661 Pedagogical Practices in Education</td>
<td>3</td>
</tr>
<tr>
<td>ED-CIFS 662 Curriculum</td>
<td>3</td>
</tr>
<tr>
<td><strong>Select ONE of the following courses:</strong></td>
<td></td>
</tr>
<tr>
<td>ED-CIFS 612 Strategies for School Improvement</td>
<td>3</td>
</tr>
<tr>
<td>ED-CIFS 664 Seminar in Curriculum and Instruction</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 556 Large Scale Assessment</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 557 Research Base for Contemporary Literacy Curricula</td>
<td>3</td>
</tr>
<tr>
<td><strong>Research</strong></td>
<td></td>
</tr>
<tr>
<td>ED-CIFS 650 Analysis of Research Perspectives</td>
<td>3</td>
</tr>
<tr>
<td>ED-CIFS 651 Intermediate Statistics in Educational Research</td>
<td>3</td>
</tr>
<tr>
<td>ED-CIFS 652 Quantitative Approaches to Research</td>
<td>3</td>
</tr>
<tr>
<td>ED-CIFS 653 Qualitative Approaches to Research</td>
<td>3</td>
</tr>
<tr>
<td><strong>Cognate Area</strong></td>
<td>23-26</td>
</tr>
<tr>
<td>600 Assessment [Ed.D. Comprehension Examination] OR comparable 600 course from another department in the College of Education</td>
<td>1</td>
</tr>
<tr>
<td><strong>Dissertation</strong></td>
<td>9-12</td>
</tr>
<tr>
<td>ED-CIFS 693 Dissertation OR comparable 693 course from another department in the College of Education</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>66</td>
</tr>
</tbody>
</table>
In addition to the above degree requirements, students not having background in the following areas will be expected to complete additional course work. This course work may be included in the program plan of study as long as it is graduate level and approved by the student’s advisor and program committee:

- Research design (ED-CIFS 503 or equivalent) must be completed prior to taking ED-CIFS 651 Intermediate Statistics in Educational Research and ED-CIFS 653 Qualitative Approaches to Research.
- Beginning statistics (KINES 552 or equivalent) must be completed prior to taking ED-CIFS 651 Intermediate Statistics in Educational Research.
- Foundations of curriculum (ED-CIFS 536 or equivalent) must be completed prior to taking ED-CIFS 662 Curriculum.
- Instructional theory or educational psychology (ED-CIFS 537 or ED-CIFS 501 or equivalents) must be completed prior to taking ED-CIFS 660 Teaching and Learning.

**Master’s Credits Applied Toward the Doctor of Education**

Credits earned for a master’s degree, excluding credits for Thesis or Project, may be applied to the requirements of the Doctor of Education degree program as part of the 21 transfer credits allowed at the discretion of the student’s doctoral committee. Ordinarily, these credits would be within the seven-year time limit and would constitute no more than one-third of the total credits required for the doctorate.

**Residency** Boise State University requires that students accepted into the doctoral program be in continuous enrollment and complete a minimum of 23 semester credits of graduate level course work during the first 15 months of the program.

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**Master of Arts in Education, Curriculum and Instruction**

**Program Coordinator:** Ted Singletary  
Education Building, Room 313, Mail Stop 1725  
Telephone (208) 426-3270  
e-mail: tsingle@boisestate.edu

**General Information**

The Master of Arts in Education, Curriculum and Instruction is designed to improve instructional skills and reflection in practicing educators. It does not lead to initial certification nor does it require certification for admission. Graduates of the program will be able to adapt research based techniques to meet the requirements of their instructional situations and be able to assess and reflect on the efficacy of their efforts. This degree requires completion of a minimum of 33 or 34 credits. Students may select from three possible culminating experiences.

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### Degree Requirements

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED-CIFS 506 Issues in Education</td>
<td>4</td>
</tr>
<tr>
<td>Elective Core Courses</td>
<td>2</td>
</tr>
<tr>
<td>Approved two-credit elective will be listed in the class schedule as ED-CIFS 580 Selected Topics or ED-CIFS 597 Special Topics followed by the specific title of the course.</td>
<td></td>
</tr>
<tr>
<td>The following are examples of titles that might be offered: Parents in Education School Law and Ethics Students in the Middle School Contemporary Education Policy Interpreting Educational Research</td>
<td></td>
</tr>
<tr>
<td>NOTE: Students selecting Option II must take a research class, which may be 580 Selected Topics: Interpreting Educational Research (2 credits), or ED-CIFS 506 Fundamentals of Educational Research (3 credits).</td>
<td></td>
</tr>
<tr>
<td>ED-CIFS 536 Curriculum Planning and Implementation</td>
<td>3</td>
</tr>
<tr>
<td>ED-CIFS 537 Instructional Theory</td>
<td>3</td>
</tr>
<tr>
<td>Content elective courses</td>
<td>12</td>
</tr>
<tr>
<td>Content electives should be chosen to support an area normally taught in the schools, or educational perspectives offered in the College of Education. Each student should determine an individual program with an assigned advisor.</td>
<td></td>
</tr>
<tr>
<td>Elective options: Option I. Thesis or Project</td>
<td>9</td>
</tr>
<tr>
<td>ED-CIFS 503 Fundamentals of Educational Research</td>
<td>3</td>
</tr>
<tr>
<td>ED-CIFS 591 Project OR ED-CIFS 593 Thesis</td>
<td>6</td>
</tr>
<tr>
<td>(A thesis or project, as mutually agreed upon by the candidate and the committee, is required. Selection of a thesis implies a research emphasis with a topic related to instruction, curriculum, or some other aspect of an educational program with a thesis format. Selection of a project implies a project related to instruction, curriculum, or some other aspect of an educational program.)</td>
<td></td>
</tr>
<tr>
<td>Option II. Comprehensive Written Examination: (A comprehensive written examination is required at the end of the course work. This examination is to be tailored by each candidate’s committee specifically for that candidate following guidelines established by the department. Candidate must be enrolled in a minimum of one credit (ED-CIFS 600 or other) for the comprehensive written examination. After the candidate has completed the written portion of the examination, the committee will meet with the candidate for an oral review prior to final approval or rejection of the written examination.)</td>
<td></td>
</tr>
<tr>
<td>ED-CIFS 505 Philosophy of Education OR ED-CIFS 503 Fundamentals of Educational Research</td>
<td>3</td>
</tr>
<tr>
<td>Approved electives</td>
<td>6</td>
</tr>
<tr>
<td>NOTE: Students selecting Option II must take a research class, which may be ED-CIFS 597 Special Topics: Core-Interpreting Educational Research (2 credits) or ED-CIFS 503 Fundamentals of Educational Research (3 credits).</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>33</td>
</tr>
</tbody>
</table>
Master of Arts in Education, Curriculum and Instruction Option: Physical Education Pedagogy

**Program Coordinator:** Kenneth Bell  
Department of Kinesiology, Mail Stop 1710  
Telephone (208) 426-1228  
e-mail: kbell@boisestate.edu

**Degree Requirements**

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED-CIFS 506 Issues in Education</td>
<td>4</td>
</tr>
<tr>
<td>KINES 555 Physical Education Pedagogy</td>
<td>3</td>
</tr>
<tr>
<td>ED-CIFS 503 Fundamentals of Educational Research OR KINES 551 Research Design in Exercise and Sport</td>
<td>3</td>
</tr>
</tbody>
</table>

**Option I:** KINES 591 Project  
KINES 593 Thesis ........................................................................... 6  
Approved electives ....................................................................... 17

**Option II:** ED-CIFS 600 Assessment [Comprehensive Examination]  
Approved electives ....................................................................... 23

**TOTAL** 33-34

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Master of Education in Educational Leadership

**Program Coordinator:** Kathleen Budge  
Education Building, Room 211, Mail Stop 1745  
Telephone (208) 426-3758  
e-mail: kathleenbudge@boisestate.edu

**General Information**

The College of Education offers a master’s degree in Educational Leadership, designed to develop effective leaders in educational settings. The interdisciplinary course work provides students with the basis for a thorough understanding of leadership, management and reform within educational institutions. Students will have collaborative opportunities to effectively influence current education programs and student learning.

**Conceptual Framework**

The conceptual framework for the College of Education at Boise State University is grounded in the theory and practice of the reflective practitioner. Reflective practitioners think critically about pedagogy, subject matter, and the needs and backgrounds of all students and clients. Accordingly, they choose appropriate content and adapt their approaches as needed, while maintaining high standards. Successful professionals are committed students of the disciplines in which they work. They remain current with professional ideas and use these to guide decision making. They are constantly assessing their instructional and clinical effectiveness.

**Degree Requirements**

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED-CIFS 576 Leadership Foundation</td>
<td>6</td>
</tr>
<tr>
<td>ED-CIFS 577 Leading Teaching and Learning</td>
<td>6</td>
</tr>
<tr>
<td>ED-CIFS 578 Leading System Change</td>
<td>6</td>
</tr>
<tr>
<td>ED-CIFS 590 Internship</td>
<td>6</td>
</tr>
<tr>
<td>ED-CIFS 600 Assessment [Capstone Course]</td>
<td>6</td>
</tr>
</tbody>
</table>

**TOTAL** 30
Graduate Certificate in Secondary/K-12 Teaching

Program Coordinator: Ted Singletary
Education Building, Room 313, Mail Stop 1725
Telephone (208) 426-3270
e-mail: tsingle@boisestate.edu

General Information

Students seeking secondary (6-12) or K-12 (in Art, Music or PE) certification in an approved area must be enrolled in a degree program. The Graduate Certificate in Secondary/K-12 Teaching is a rigorous, accelerated pre-professional program leading to initial certification. Students who have a bachelor’s degree in the field they wish to teach and who meet Graduate College admission requirements may enroll in a Graduate Certificate program that prepares students to qualify for teacher certification from the Idaho State Department of Education, although some of the credits may be applied to a master’s degree program. Advising and review of transcripts will be done by the Department of Curriculum, Instruction and Foundational Studies (CIFS).

Certification in Secondary and K-12 Education Candidates for secondary teacher certification must complete either an approved major endorsement of at least 45 credits or a 30 credit major endorsement and one or more minor endorsements of at least 20 credits. Some content areas require specific courses within those totals. Idaho State certification requirements can be found at www.sde.idaho.gov/site/teacher_certification/subject_area.htm.

A degree in a subject may not necessarily include the specific content and courses required for certification. Available Approved Endorsements (PRAXIS II examination numbers)

- American Government/Political Science (0930)
- Art, K-12 or 6-12 (0133)
- Bilingual Education (0360)*
- Biological Science (0235)
- Chemistry (0245)
- Communication (0220)
- Drama (0640)
- Earth Science (0571)
- Economics (0910)
- English (0041)
- English as a New Language (ENL) (0360)*
- Foreign Language: French (0173)
- Foreign Language: German (0181)
- Foreign Language: Spanish (0191)
- Geography (0920)*
- Health (0550)*
- History (0941)
- Mathematics (0061)
- Music, K-12 (0112 & 0113)
- Natural Science (0435)*
- Physical Education, K-12 (0091)
- Physical Science (0481)*
- Physics (0265)
- Psychology (0390)
- Sociology (0950)
- Sociology/Anthropology (0950)
- Social Studies (0081)

*Only minor endorsements possible in these areas; you must also have a major endorsement.

Application Deadlines The first Friday of February. Regular admission requires meeting all criteria including passing all content courses and tests at the time of application. Courses typically start in mid-May of each year (Summer term).

Application and Admission Requirements

Application Procedures Applicants must complete both procedures listed below:

1. An applicant should follow the general application procedures for graduate degree-seeking students (see Applying as a Degree-Seeking Student in the Graduate Admission Policies and Procedures section of the Graduate Catalog) or online at www.boisestate.edu/gradcoll/0001.html.

2. The application to the Graduate Certificate in Secondary/K-12 Teaching is located at: http://education.boisestate.edu/teachered/appinfo.htm. In addition to the online form, a signed paper copy with the required attachments should be submitted to the Office of Teacher Education, Education 722, Boise State University, 1910 University Drive, Boise, ID 83725-746.

   This application requires evidence of meeting all of the admission requirements.

   Admission Requirements Prior to admission, applicants must meet the following criteria:

   - a baccalaureate degree from an accredited institution,
   - the equivalent of 45-semester credit major, or a 30-credit major and at least one 20-credit minor,
   - a cumulative undergraduate GPA of at least 3.00 on a 4.00 scale,
   - a minimum 2.75 GPA in the major and minor fields,
   - a minimum score of 172 on the PRAXIS I Writing examination (available locally at Prometric Testing Center, 321-7422),
   - a passing score on the appropriate PRAXIS II examination in major and minor fields – PRAXIS examination information available at: www.ets.org. The PRAXIS II examinations are only administered several times a year. Passing scores must be received before applicants can be admitted.

   Applicants should take the appropriate PRAXIS II examination(s) no later than January.

   - evidence of technology competency, which could include any of the following: passing the ETS iSkills Advanced Assessment with a minimum of 60% (see ets.org); ITM 104, 105 and 106 (or equivalent placement examination, http://itscm.boisestate.edu); EDTECH 202; or equivalent course or examination,
   - a brief (1-2 page) essay that clearly lists the area or areas of certification and describes the applicant’s experiences with children or schools. A copy of this essay will be given to the supervisor and cooperating teacher, and
   - two letters of recommendation, describing applicant’s experience working with children or schools.

All PRAXIS test scores must be sent to the Office of Teacher Education. Once the applicant’s file is complete, the Graduate Certificate Program Coordinator will evaluate and forward an admission recommendation (regular, provisional, or denial) to the Graduate College. Meeting the application requirements does not guarantee admission to the program. Admission recommendations will be based upon a review of the student’s transcripts, letters of recommendation, and essay. In the case of a recommendation for provisional admission, the Coordinator will also establish the stipulations that must be satisfied by the student to advance to regular status.
Certificate Requirements

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Graduate Certificate in Secondary/K-12 Teaching</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Summer</strong></td>
<td></td>
</tr>
<tr>
<td>ED-CIFS 507 Foundations of American Education (S)</td>
<td>3</td>
</tr>
<tr>
<td>ED-CIFS 508 Learning and Development of Students (S)</td>
<td>3</td>
</tr>
<tr>
<td>ED-CIFS 509 Curriculum, Instruction, and Assessment in Grades 6-12 (S)</td>
<td>3</td>
</tr>
<tr>
<td><strong>Fall</strong></td>
<td></td>
</tr>
<tr>
<td>ED-CIFS 561 Professional Year I - Teaching Experience I</td>
<td>1-3</td>
</tr>
<tr>
<td>ED-SPED 550 Teaching Secondary Students with Exceptional Needs</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 544 Content Literacy In Secondary Schools</td>
<td>3</td>
</tr>
<tr>
<td>Content-specific methods course</td>
<td>3</td>
</tr>
<tr>
<td>Courses may have prerequisites in addition to the admission requirements.</td>
<td></td>
</tr>
<tr>
<td><strong>Spring</strong></td>
<td></td>
</tr>
<tr>
<td>ED-CIFS 550 Seminar On Teaching and Learning (S)</td>
<td>3</td>
</tr>
<tr>
<td>ED-CIFS 562 - 566 Professional Year II</td>
<td>12</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>34-36</strong></td>
</tr>
</tbody>
</table>

Certification  A student can be recommended for certification to the Idaho State Department of Education upon successful completion of the following requirements.

- Demonstrate good moral character.
- Complete required content courses in an approved major, and possibly one or more minors.
- Complete secondary teacher education program requirements.
- Obtain the recommendation of the Certification Officer for the College of Education (using the required certification materials).

Course Offerings

ED-CIFS—EDUCATION-CURRICULUM, INSTRUCTION, AND FOUNDATIONAL STUDIES

ED-CIFS 501 ADVANCED EDUCATIONAL PSYCHOLOGY (3-0-3)(On demand). A study of contemporary issues involving both theoretical and methodological considerations in the history and systems of educational psychology. Special emphasis will be given to group behavior in terms of principles relevant to educational objectives. PREREQ: ED-CIFS 203 and PSYC 101.

ED-CIFS 502 EDUCATION IN EMERGING NATIONS (3-0-3)(F). The course provides an analysis of the relationship between national goals and the educational system in the twentieth century. Contemporary systems will be studied in light of three major factors: (1) religious factors; (2) natural factors such as race, language and environment; (3) secular factors such as Humanism, Socialism and Nationalism.

ED-CIFS 503 FUNDAMENTALS OF EDUCATIONAL RESEARCH (3-0-3)(F/S/SU). This course will introduce students to the elements of experimental and non-experimental research designs. Instruction in using research resources and interpreting statistics will be given and students will analyze current research related to education. Students will learn how to develop a research proposal and will write a scholarly research paper.

ED-CIFS 504 SUPERVISION OF INSTRUCTIONAL PERSONNEL (3-0-3)(S). A course designed to improve the supervision skills of elementary/secondary cooperating teachers and other supervisory personnel. Emphasis will be placed on a variety of observation and evaluation strategies designed to improve instruction.

ED-CIFS 505 PHILOSOPHY OF EDUCATION (3-0-3)(S/ SU). Students will analyze and evaluate past and contemporary philosophies and the values derived from them as they apply to education. A formal paper will be required.

ED-CIFS 506 ISSUES IN EDUCATION (4-0-4)(F/S/ SU). Historical and contemporary social, economic, and organizational issues influencing education. Includes readings, presentations by members of the educational community, and discussions.

ED-CIFS 507 FOUNDATIONS OF AMERICAN EDUCATION (3-0-3)(S/ SU). Historical, philosophical, sociological foundations of American education. Study of the historical development of public education in the United States, with special emphasis given to questions of power, equity, and inclusion; explore major schools of educational thought, as well as the philosophy of inclusion; and apply historical understanding and philosophical analysis to contemporary issues. PREREQ: Admission to Graduate Certificate in Secondary/K-12 Teaching or PERM/INST.

ED-CIFS 508 LEARNING AND DEVELOPMENT OF STUDENTS (2-2-3)(S/ SU). Theories of psychological and social development of children and adolescents as they apply to learning, motivation, and interaction, including the ranges of abilities and interests found in typical classrooms. PREREQ: Admission to Graduate Certificate in Secondary/K-12 Teaching or PERM/INST.

ED-CIFS 509 CURRICULUM, INSTRUCTION AND ASSESSMENT IN GRADES 6-12 (3-0-3)(S/ SU). Curriculum planning, instructional strategies, assessment of student learning, differentiated instruction, and principles of classroom and behavior management. PREREQ: Admission to Graduate Certificate in Secondary/K-12 Teaching or PERM/INST.

ED-CIFS 511 ASSESSMENT AND EVALUATION (3-0-3)(F/ S). Investigates formal and informal assessments of student, class, district, state, and national performance and achievement, and evaluation using appropriate standards. Practical applications creating relevant assessments of classroom learning are emphasized.

ED-CIFS 520 FOUNDATIONS OF GIFTED AND TALENTED EDUCATION (3-0-3)(F/S/ SU). An overview of gifted/talented education. Topics may include identification, assessments, talent areas, curriculum adaptations, social needs, critical and creative thinking, legal aspects, and resources. PREREQ: PSYC 101 and ED-CIFS 203 or ED-CIFS 302 or ED-CIFS 538, or PERM/INST.

ED-CIFS 521 CREATIVITY AND CRITICAL THINKING SKILLS (3-0-3)(F/S/ SU). Definition, identification, and facilitation of creativity and critical thinking skills. Topics may include overview, cognitive development, related brain research, assessment instruments, creative people, processes, and conditions for fostering creativity and models of critical thinking including creative problem solving. Demonstration of competency in identifying, fostering, assessing, demonstrating, and describing programs that foster creativity and critical thinking are required. PREREQ: PSYC 101 and ED-CIFS 203 or ED-CIFS 302 or ED-CIFS 538, or PERM/INST.

ED-CIFS 522 SOCIAL AND EMOTIONAL NEEDS OF GIFTED AND TALENTED LEARNERS (3-0-3)(F/S/ SU). Identification and basic intervention for basic affective needs of gifted and talented learners. Topics covered may include: emotional aspects of giftedness, suicide, perfectionism, underachievement, peer relations, gender issues, risk taking, family relations, cultural factors, twice exceptional, self-esteem, career counseling, asynchronous development, and counseling skills for teachers. PREREQ: PSYC 101 and ED-CIFS 203 or ED-CIFS 302 or ED-CIFS 538, or PERM/INST.

ED-CIFS 530 ADVANCED PRACTICES AND PRINCIPLES IN TEACHING SOCIAL SCIENCE (3-0-3)(F). A comprehensive study of the practices and principles in social science education, including objectives, social problems, unit development, work-study skills, organization of the program materials and media, and research findings basic to social studies will be developed.

ED-CIFS 531 ADVANCED PRACTICES AND PRINCIPLES IN TEACHING ELEMENTARY SCHOOL MATHEMATICS (3-0-3)(S). Emphasis on creative methods and strategies for teaching elementary school mathematics. Also includes a review of current research, curriculum trends and exploration of experimentation with unique materials for teaching mathematics.

ED-CIFS 532 ADVANCED PRACTICES AND PRINCIPLES IN TEACHING ELEMENTARY SCIENCE (3-0-3)(F). Current practices and
principles in modern elementary science concepts are developed. Emphasis is placed on the selection and organization of content and experimental activities.

ED-CIFS 534 TEACHING SECONDARY SOCIAL STUDIES (3-0-3)(F/S).
This course will prepare teachers to engage young people in an inquiry about fundamental ideas and themes from history, social studies, and social science disciplines as well as to assist and encourage them to become informed, active participants in a democratic society. Students will examine professional literature on best teaching practices. PREREQ: Admission to Graduate Secondary Teacher Certification and ED-SPED 550. COREQ: ED-LTCY 544 and ED-CIFS 561.

ED-CIFS 535 SECONDARY SCHOOL SCIENCE METHODS (3-0-3)(F/S).
Students will examine local, state and national science curricula and standards. Students will use a variety of materials and methods, including appropriate instructional technologies, to develop science lessons which help all learners to develop scientific inquiry skills, an understanding of the nature of science, and critical understanding of selected science concepts and procedures. Students will also analyze current science educational journal articles and research. PREREQ: Admission into Graduate Teacher Certification and ED-SPED 550. COREQ: ED-LTCY 544 and ED-CIFS 561.

ED-CIFS 536 CURRICULUM PLANNING AND IMPLEMENTATION (3-0-3)(F/S/SU).
This is a general course for practicing teachers intended to give them a foundation in curriculum theory and practice. They will develop an understanding of how curriculum is developed, organized, implemented and evaluated. Current issues and trends in curriculum with some historical perspectives will be addressed.

ED-CIFS 537 INSTRUCTIONAL THEORY (3-0-3)(F/S/SU).
This course includes investigations of research and theory about educational contexts, motivation, learning and development as they relate to models of instruction. Students will develop skills in selecting appropriate instructional models to achieve specific purposes in a variety of educational settings.

ED-CIFS 539 CURRICULUM ADAPTATIONS FOR GIFTED AND TALENTED STUDENTS (3-0-3)(F/S/SU).
Curriculum adaptations for gifted and talented learners including curriculum compacting, independent study, project-based learning, research-based learning, enrichment programs, mentoring programs, acceleration, dual enrollment, and more. PREREQ: PSYC 101 and ED-CIFS 203 or ED-CIFS 302 or ED-CIFS 538, or PERM/INST.

ED-CIFS 538 SEMINAR ON TEACHING AND LEARNING (2-0-3)(S).
This hybrid seminar, consisting of campus and online discussion, will focus on synthesizing field experiences. Teaching as decision-making, teacher inquiry, classroom learning environments, employment preparation, adaptation of instruction, collaboration, and legal issues affecting classrooms will be addressed. PREREQ: Admission to Graduate Certificate in Secondary/K-12 Teaching or PERM/INST.

ED-CIFS 553 PROFESSIONAL EDUCATION (0-1.1 to 0-3-3).
Available at special fee rate (approximately one-third of part-time education fee). Student must be an Idaho public school teacher or professional employee of an Idaho school district. Credit is extended for professional development only and cannot be applied towards a degree program. (Pass/Fail.)

ED-CIFS 561 PROFESSIONAL YEAR - TEACHING EXPERIENCE I (0-V-V)(F).
Students will work with master teachers for 50 hours per credit. They will observe the teaching/learning process (which they have studied on campus) and demonstrate competence in a P-12 school setting. (Pass/Fail.) PREREQ: Admission to Graduate Certificate in Secondary/K-12 Teaching.

ED-CIFS 562 PROFESSIONAL YEAR - ELEMENTARY TEACHING EXPERIENCE II K-12 OPTION (1-40-6)(S).
This course is reserved for students who are seeking an endorsement to teach in specific disciplines in grades 1-8. Students are given assignments in elementary schools where they observe and teach for one-half semester under the supervision of a master teacher and a university supervisor. Available for Art, Music, and Physical Education majors only. (Pass/Fail.) PREREQ: Admission to Graduate Certificate in Secondary/K-12 Teaching and approval for placement in an appropriate classroom setting. COREQ: ED-CIFS 563 or ED-CIFS 564.

ED-CIFS 563 PROFESSIONAL YEAR - GRADES 6-9 TEACHING EXPERIENCE II K-12 OPTION (1-40-6)(S).
Supervised student teaching in a junior high/middle school. The student will be placed with a cooperating teacher for one-half semester (fulltime) in his/her major/minor field under the supervision of university faculty. Available for Art, Music, and Physical Education majors only. Seminars are required. (Pass/Fail.) PREREQ: Admission to Graduate Certificate in Secondary/K-12 Teaching. COREQ: ED-CIFS 562 or ED-CIFS 564.

ED-CIFS 564 PROFESSIONAL YEAR - GRADES 9-12 TEACHING EXPERIENCE II K-12 OPTION (1-40-6)(S).
Supervised student teaching in a senior high/middle school. The student will be placed with a cooperating teacher for one-half semester (fulltime) in his/her major/minor field under the supervision of university faculty. Available for Art, Music, and Physical Education majors only. (Pass/Fail.) PREREQ: Admission to Graduate Certificate in Secondary/K-12 Teaching. COREQ: ED-CIFS 562 or ED-CIFS 563.

ED-CIFS 565 PROFESSIONAL YEAR – GRADES 6-9 TEACHING EXPERIENCE II (1-40-12)(S).
Supervised student teaching in a high/junior high/middle school. The student will be placed with a cooperating teacher for one semester (fulltime) in his/her major/minor field under the supervision of university faculty. (Pass/Fail.) Not available for Art, Music, or Physical Education Majors. PREREQ: Admission to Graduate Certificate in Secondary/K-12 Teaching.

ED-CIFS 566 PROFESSIONAL YEAR - GRADES 9-12 TEACHING EXPERIENCE II (1-40-12)(S).
Supervised student teaching in a senior high school. The student will be placed with a cooperating teacher for one semester (fulltime) in his/her major/minor field under the supervision of university faculty. (Pass/Fail.) Not available for Art, Music, or Physical Education Majors. PREREQ: Admission to Graduate Certificate in Secondary/K-12 Teaching.

ED-CIFS 576 LEADERSHIP FOUNDATION (6-0-6)(F/S/SU).
This module emphasizes essential knowledge, skills and dispositions to serve as the foundation for candidates pursuing positions of leadership, including study of the political, social, cultural and economic systems that support and affect schools and the theoretical principles underlying leadership. Emphasis includes developing conceptual frameworks to lead and manage (1) schools and school systems, (2) change and improvement, and (3) self, others and relationships. Participation in simulations is required of all students.

ED-CIFS 577 LEADING TEACHING AND LEARNING (6-0-6)(F/S/SU).
This module emphasizes the knowledge, skills and dispositions of an effective instructional leader who is expected to influence, manage, monitor and ensure the quality of curriculum, instruction and assessment in schools and classrooms. Students will investigate aspects of curriculum theory, supervision, characteristics of effective teaching for diverse learners, strategies for assessment, and professional development. Participation in simulations is required of all students. PREREQ: ED-CIFS 576.

ED-CIFS 578 LEADING SYSTEM CHANGE (6-0-6)(F/S/SU).
This module emphasizes the knowledge, skills and dispositions necessary to create school and district cultures, conditions and capabilities that support high levels of achievement for all students. Students learn to build relationships with all stakeholders, to use processes for creating system change, and to optimize the use of school funding. Participation in simulations is required of all students. PREREQ: ED-CIFS 576.

Students will explore the roles of schools in American sociocultural and historical changes, and the historical contexts of contemporary improvement efforts. They will LAPHRICETTPAEUO CDOEIEFLLRTEOEPRAO 60, and the impact of technology and the ongoing information revolution. PREREQ: ED-CIFS 505. ED-CIFS 560 or equivalent.

Students will explore the cultures and organizational dynamics of schools, and obstacles to change in an increasingly diverse society. Case studies of change efforts in the past will be examined for their lessons for contemporary improvement efforts. Research and theory about systemic change in schools and other organizations will be explored as a basis for developing working theories and leadership skills necessary to guide school improvement efforts. PREREQ: ED-CIFS 610.

ED-CIFS 612 STRATEGIES FOR SCHOOL IMPROVEMENT (3-0-3)(F/S/SU).
Students will explore contemporary strategies being tried or proposed to bring about ongoing improvement in the schools. There will be an emphasis on participatory approaches to school change, collaboration and partnership building, the role of technology, attention to cultural diversity, and conflict resolution strategies. Students will work on projects through which they will transform their emerging theories of change into plans for making change happen in their schools. Special emphasis will be placed on preparation for school-based decision making. PREREQ: Graduate status.
ED-CIFS 620 FIELD EXPERIENCE: UNDERACHIEVING LEARNERS (0-4-2)(F/S/SU). This field experience enables participants to bridge the current knowledge base on effective practice and program design with the needs of underachieving learners, their families, schools, and community agencies. Through in-depth field study, students will gain better understanding of underachieving learners and programs designed to meet their needs. PREREQ: ED-CIFS 653.

ED-CIFS 621 FIELD EXPERIENCE: SCHOOL IMPROVEMENT (0-4-2)(F/S). Students will participate in schools and other educational settings that are involved in exemplary educational improvement projects; curriculum development efforts; and professional development activities, including the planning, implementation, and evaluation of such programs. PREREQ: ED-CIFS 620.

ED-CIFS 650 ANALYSIS OF RESEARCH PERSPECTIVES (3-0-3)(F/S/SU). Overview and critical analysis of research paradigms. Assumptions, standards, and methods for critiquing, generating and communicating interpretations. PREREQ: ED-CIFS 503 or equivalent.

ED-CIFS 651 INTERMEDIATE STATISTICS IN EDUCATIONAL RESEARCH (3-0-3)(F/S/SU). Parametric and nonparametric statistical procedures commonly used in educational research, including analysis of variance, analysis of covariance, chi square, and multiple regression. Data analysis and interpretation procedures via computer-based statistical packages. PREREQ: ED-CIFS 650 and an introductory course addressing inferential statistics.

ED-CIFS 652 QUANTITATIVE APPROACHES TO RESEARCH (3-0-3)(F/S/SU). Appropriate research designs and data analysis techniques in quantitative research and related design and measurement issues. Conduct a quantitative study. PREREQ: ED-CIFS 651.

ED-CIFS 653 QUALITATIVE APPROACHES TO RESEARCH (3-0-3)(F/S/SU). Qualitative methods in educational research. Analysis of various approaches to qualitative research, including case studies and biographical, phenomenological, ethnographic, interactional, and critical analyses. Conduct a qualitative study. PREREQ: ED-CIFS 650.

ED-CIFS 660 LEARNING AND COGNITION (3-0-3)(F/S/SU). Learning theories and processes with emphasis given to cognitive and situated learning. PREREQ: Graduate status.

ED-CIFS 661 PEDAGOGICAL PRACTICES IN EDUCATION (3-0-3)(F/S/SU). Pedagogical practices and professional development including social, political, cultural and historical influences, and practices of instructional leadership. PREREQ: ED-CIFS 557.

ED-CIFS 662 CURRICULUM (3-0-3)(F/S/SU). Students will focus on major theories, research bases, and significant societal factors in school curricula. The course will include historical and philosophical foundations of curricular development; analysis of factors and issues influencing curricular determinations, including cultural influences and technological contributions; and consideration of likely future curricular evolution. PREREQ: ED-CIFS 536 or equivalent.

ED-CIFS 663 EVALUATION (3-0-3)(F/S/SU). Methods of evaluation with emphasis on making judgments about such educational issues as school effectiveness, individual performances, and other educational endeavors. Ethical issues in assessment and evaluation and analysis of social, cultural, and political influences affecting assessment and evaluation procedures. PREREQ: ED-CIFS 651 and ED-CIFS 653.

ED-CIFS 664 SEMINAR IN CURRICULUM AND INSTRUCTION (3-0-3)(F/S). In this culminating seminar, students will synthesize their learning from prior course work and field experiences and examine educational issues relevant to their respective professional careers. PREREQ: ED-CIFS 660 and ED-CIFS 662.

ED-CIFS 693 DISSERTATION (0-0-12)(F/S/SU). Students will complete an independent and original research project on an important educational issue; collect and interpret the findings in a cogent, professional and scholarly-written document; successfully defend the project to the dissertation committee; and disseminate those findings in a professionally appropriate manner. PREREQ: Successful completion of “Comprehensive Evaluation” and Admission to Candidacy.
Special Requirements

For admission to the Master of Educational Technology program:

1. GPA of 3.0 or better
2. Personal Statement

For admission to the Master of Science in Educational Technology program:

1. Minimum GRE scores are 1000 combined in verbal and quantitative, and 4.2 in analytical:
2. GPA of 3.0 or better
3. Personal Statement

Master of Educational Technology

Graduate Program Coordinator: Lisa Dawley
Education Building, Room 305, Mail Stop 1747
Telephone (208) 426-1966
e-mail: lisadawley@boisestate.edu

Degree Requirements

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requirements:</td>
<td>18</td>
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<tr>
<td>EDTECH 501 Introduction to Educational Technology</td>
<td>3</td>
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<tr>
<td>EDTECH 502 The Internet for Educators</td>
<td>3</td>
</tr>
<tr>
<td>EDTECH 503 Instructional Design</td>
<td>3</td>
</tr>
<tr>
<td>EDTECH 504 Theoretical Foundations of Educational Technology</td>
<td>3</td>
</tr>
<tr>
<td>EDTECH 505 Evaluation for Educational Technologists</td>
<td>3</td>
</tr>
<tr>
<td>EDTECH 506 Instructional Message Design</td>
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Students should take at least 12 credits of elective course work from the following, possibly substituting other credits upon advisor’s approval.

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>EDTECH 511 Interactive Courseware Development</td>
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</tr>
<tr>
<td>EDTECH 512 Online Course Design</td>
<td>3</td>
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<tr>
<td>EDTECH 513 Multimedia</td>
<td>3</td>
</tr>
<tr>
<td>EDTECH 521 Online Teaching in the K-12 Environment</td>
<td>3</td>
</tr>
<tr>
<td>EDTECH 522 Online Teaching for Adult Learners</td>
<td>3</td>
</tr>
<tr>
<td>EDTECH 523 Advanced Online Teaching Methods</td>
<td>3</td>
</tr>
<tr>
<td>EDTECH 531 Teaching and Learning in Virtual Worlds</td>
<td>3</td>
</tr>
<tr>
<td>EDTECH 532 Educational Games and Simulations</td>
<td>3</td>
</tr>
<tr>
<td>EDTECH 541 Integrating Technology</td>
<td>3</td>
</tr>
<tr>
<td>EDTECH 542 Technology-Supported Project-Based Learning</td>
<td>3</td>
</tr>
<tr>
<td>EDTECH 551 Technical and Grant Writing</td>
<td>3</td>
</tr>
<tr>
<td>EDTECH 552 Operating Systems and Networks</td>
<td>3</td>
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<tr>
<td>EDTECH 561 Research in Educational Technology</td>
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Culminating Activity

<table>
<thead>
<tr>
<th>Course Number and Title</th>
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<tbody>
<tr>
<td>EDTECH 592 Portfolio</td>
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</tr>
</tbody>
</table>

TOTAL 33

Master of Science in Educational Technology

Graduate Program Coordinator: Lisa Dawley
Education Building, Room 305, Mail Stop 1747
Telephone (208) 426-1966
e-mail: lisadawley@boisestate.edu

Degree Requirements

<table>
<thead>
<tr>
<th>Course Number and Title</th>
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</thead>
<tbody>
<tr>
<td>Requirements:</td>
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<tr>
<td>EDTECH 501 Introduction to Educational Technology</td>
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<tr>
<td>EDTECH 502 The Internet for Educators</td>
<td>3</td>
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<tr>
<td>EDTECH 503 Instructional Design</td>
<td>3</td>
</tr>
<tr>
<td>EDTECH 504 Theoretical Foundations of Educational Technology</td>
<td>3</td>
</tr>
<tr>
<td>EDTECH 505 Evaluation for Educational Technologists</td>
<td>3</td>
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<tr>
<td>EDTECH 506 Instructional Message Design</td>
<td>3</td>
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<tr>
<td>EDTECH 561 Research in Educational Technology</td>
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</table>

Students should take at least 6 credits of elective course work.

<table>
<thead>
<tr>
<th>Course Number and Title</th>
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<tbody>
<tr>
<td>EDTECH 511 Interactive Courseware Development</td>
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<tr>
<td>EDTECH 512 Online Course Design</td>
<td>3</td>
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<tr>
<td>EDTECH 513 Multimedia</td>
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</tr>
<tr>
<td>EDTECH 521 Online Teaching in the K-12 Environment</td>
<td>3</td>
</tr>
<tr>
<td>EDTECH 522 Online Teaching for Adult Learners</td>
<td>3</td>
</tr>
<tr>
<td>EDTECH 523 Advanced Online Teaching Methods</td>
<td>3</td>
</tr>
<tr>
<td>EDTECH 531 Teaching and Learning in Virtual Worlds</td>
<td>3</td>
</tr>
<tr>
<td>EDTECH 532 Educational Games and Simulations</td>
<td>3</td>
</tr>
<tr>
<td>EDTECH 541 Integrating Technology</td>
<td>3</td>
</tr>
<tr>
<td>EDTECH 542 Technology-Supported Project-Based Learning</td>
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</tr>
<tr>
<td>EDTECH 551 Technical and Grant Writing</td>
<td>3</td>
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<tr>
<td>EDTECH 552 Operating Systems and Networks</td>
<td>3</td>
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Culminating Activities

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>EDTECH 593 Thesis</td>
<td>6</td>
</tr>
</tbody>
</table>

TOTAL 33
General Information
The Graduate Certificate in Online Teaching program is designed for those who wish to learn methodologies for online instruction with an emphasis on designing and moderating online courses. Students admitted to the certificate program are required to be familiar with all policies of the Graduate College that govern graduate certificate programs.

Admission Requirements
Admission to the certificate program requires a baccalaureate degree from a regionally accredited college or university and admission to the Graduate College. In addition, the academic background of the applicant must be judged by the Graduate Program Coordinator to be adequate for enrollment in graduate courses in education and educational technology. However, meeting these minimum requirements does not guarantee admission to the certificate program.

Application Procedures
An applicant to the certificate program must follow the general application procedures of the Graduate College for admission to a graduate program. The applicant must also submit a letter of interest to the Graduate Program Coordinator briefly summarizing his or her background and motivation for enrolling in the certificate program. Once the applicant’s file is complete, it will be reviewed by the Graduate Program Coordinator who will provide an admission recommendation to the Dean of the Graduate College. The Dean will make the final admission decision and notify the applicant.

Special Relationships with Other Programs
A student may be simultaneously enrolled in the Master of Science in Educational Technology program, or Master of Educational Technology programs, and the Graduate Certificate in Online Teaching program subject to the approval of the chair of the student’s supervisory committee and the graduate program coordinators of both programs. Please note that admission to the certificate program does not guarantee admission to the degree program and vice versa.

A student who is not enrolled in any graduate degree program at Boise State University may by enrolled in the Graduate Certificate in Online Teaching program and one other graduate certificate program offered by the Department of Educational Technology but only with the written approval of the Graduate Program Coordinator. Please note that admission to one certificate program does not guarantee admission to another certificate program, even if the programs are closely related. Simultaneous enrollment in more than two graduate certificate programs is prohibited by the Graduate College. Credits earned in this certificate program may be counted towards either the Master of Educational Technology or Master of Science in Educational Technology programs.

Certificate Requirements

<table>
<thead>
<tr>
<th>Course Number and Title</th>
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<tr>
<td>EDTECH 521 Online Teaching in the K-12 Environment</td>
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<tr>
<td>EDTECH 523 Advanced Online Teaching Methods</td>
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<tr>
<td>FOR Teachers of K-12 students:</td>
<td>9</td>
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<tr>
<td>Choose one of the following:</td>
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<tr>
<td>EDTECH 502 The Internet for Educators</td>
<td>3</td>
</tr>
<tr>
<td>EDTECH 512 Online Course Design</td>
<td>3</td>
</tr>
<tr>
<td>EDTECH 531 Teaching and Learning In Virtual Worlds</td>
<td>3</td>
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<tr>
<td>EDTECH 532 Educational Games and Simulations</td>
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OR

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>EDTECH 512 Online Course Design</td>
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</tr>
<tr>
<td>EDTECH 522 Online Teaching for Adult Learners</td>
<td>3</td>
</tr>
<tr>
<td>FOR Teachers of Adult learners:</td>
<td>9</td>
</tr>
<tr>
<td>Choose one of the following:</td>
<td></td>
</tr>
<tr>
<td>EDTECH 502 The Internet for Educators</td>
<td>3</td>
</tr>
<tr>
<td>EDTECH 532 Advanced Online Teaching Methods</td>
<td>3</td>
</tr>
<tr>
<td>EDTECH 531 Teaching and Learning In Virtual Worlds</td>
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</tr>
</tbody>
</table>

TOTAL 9

Graduate Certificate in School Technology Coordination

General Information
The Graduate Certificate in School Technology Coordination program is designed to provide specialized skills for those professionals who are responsible for coordinating educational technology for an entire school. The program emphasizes understanding of the networked environment, web programming, and skills for teaching teachers how to use computers in the teaching and learning process. Students admitted to the certificate program are required to be familiar with all policies of the Graduate College that govern graduate certificate programs.

Admission Requirements
Admission to the certificate program requires a baccalaureate degree from a regionally accredited college or university and admission to the Graduate College. In addition, the academic background of the applicant must be judged by the Graduate Program Coordinator to be adequate for enrollment in graduate courses in education and educational technology. However, meeting these minimum requirements does not guarantee admission to the certificate program.
**Application Procedures**

An applicant to the certificate program must follow the general application procedures of the Graduate College for admission to a graduate program. The applicant must also submit a letter of interest to the Graduate Program Coordinator briefly summarizing his or her background and motivation for enrolling in the certificate program. Once the applicant’s file is complete, it will be reviewed by the Graduate Program Coordinator who will provide an admission recommendation to the Dean of the Graduate College. The Dean will make the final admission decision and notify the applicant.

**Special Relationships with Other Programs**

A student may be simultaneously enrolled in the Master of Science in Educational Technology program, or Master of Educational Technology programs, and the Graduate Certificate in School Technology Coordination program subject to the approval of the chair of the student’s supervisory committee and the graduate program coordinators of both programs. Please note that admission to the certificate program does not guarantee admission to the degree program and vice versa.

A student who is not enrolled in any graduate degree program at Boise State University may be enrolled in the Graduate Certificate in School Technology Coordination and one other graduate certificate program offered by the Department of Educational Technology but only with the written approval of the Graduate Program Coordinator. Please note that admission to one certificate program does not guarantee admission to another certificate program, even if the programs are closely related. Simultaneous enrollment in more than two graduate certificate programs is prohibited by the Graduate College. Credits earned in this certificate program may be counted towards either the Master of Educational Technology or Master of Science in Educational Technology programs.

**Certificate Requirements**

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
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<tr>
<td>EDTECH 541 Integrating Technology into the Classroom Curriculum</td>
<td>3</td>
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<tr>
<td>EDTECH 551 Technical and Grant Writing</td>
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<tr>
<td>EDTECH 552 Operating Systems and Networks</td>
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<tr>
<td>TOTAL</td>
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</tbody>
</table>

**Graduate Certificate in Technology Integration Specialist**

**Graduate Program Coordinator:** Lisa Dawley  
Education Building, Room 305, Mail Stop 1747  
Telephone (208) 426-1966  
e-mail: lisadawley@boisestate.edu

**General Information**

The Graduate Certificate in Technology Integration Specialist is designed for K-12 teachers who wish to develop skills in computer technology to support the teaching and learning process. Students admitted to the certificate program are required to be familiar with all policies of the Graduate College that govern graduate certificate programs.

**Admission Requirements**

Admission to the certificate program requires a baccalaureate degree from a regionally accredited college or university and admission to the Graduate College. In addition, the academic background of the applicant must be judged by the Graduate Program Coordinator to be adequate for enrollment in graduate courses in education and educational technology. However, meeting these minimum requirements does not guarantee admission to the certificate program.

**Application Procedures**

An applicant to the certificate program must follow the general application procedures of the Graduate College for admission to a graduate program. The applicant must also submit a letter of interest to the Graduate Program Coordinator briefly summarizing his or her background and motivation for enrolling in the certificate program. Once the applicant’s file is complete, it will be reviewed by the Graduate Program Coordinator who will provide an admission recommendation to the Dean of the Graduate College. The Dean will make the final admission decision and notify the applicant.

**Special Relationships with Other Programs**

A student may be simultaneously enrolled in the Master of Science in Educational Technology program and the Graduate Certificate in Technology Integration Specialist program subject to the approval of the chair of the student’s supervisory committee and the graduate program coordinators of both programs. Please note that admission to the certificate program does not guarantee admission to the degree program and vice versa.

A student who is not enrolled in any graduate degree program at Boise State University may be enrolled in the Graduate Certificate in Technology Integration Specialist program and one other graduate certificate program offered by the Department of Educational Technology but only with the written approval of the Graduate Program Coordinator. Please note that admission to one certificate program does not guarantee admission to another certificate program, even if the programs are closely related. Simultaneous enrollment in more than two graduate certificate programs is prohibited by the Graduate College. Credits earned in this certificate program may be counted towards either the Master of Educational Technology or Master of Science in Educational Technology programs.
Technology but only with the written approval of the Graduate Program Coordinator. Please note that admission to one certificate program does not guarantee admission to another certificate program, even if the programs are closely related. Simultaneous enrollment in more than two graduate certificate programs is prohibited by the Graduate College. Credits earned in this certificate program may be counted towards either the Master of Educational Technology or Master of Science in Educational Technology programs.

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<tr>
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<tbody>
<tr>
<td>EDTECH 502 The Internet for Educators</td>
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<tr>
<td>EDTECH 541 Integrating Technology into the Classroom Curriculum</td>
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<tr>
<td>EDTECH 542 Technology-Supported Project-Based Learning</td>
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<tr>
<td>TOTAL</td>
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</tr>
</tbody>
</table>

Course Offerings

EDTECH — EDUCATIONAL TECHNOLOGY

EDTECH 501 INTRODUCTION TO EDUCATIONAL TECHNOLOGY (3-0-3) (F/S/SU). Overview of the field of educational technology emphasizing current issues, leadership in technology use planning, and evaluation/synthesis of research.

EDTECH 502 THE INTERNET FOR EDUCATORS (2-0-3) (F/S/SU). Locate, retrieve, and evaluate information found on the Internet. Design and produce instructional Web pages using a combination of software and HTML/XHTML/CSS code. Apply appropriate instructional strategies and models to the design of digital curriculum.

EDTECH 503 INSTRUCTIONAL DESIGN (3-0-3) (F/S/SU). Focuses on systematic design of instruction and alternative models. Project required.

EDTECH 504 THEORETICAL FOUNDATIONS OF EDUCATIONAL TECHNOLOGY (3-0-3) (F/S/SU). Overview of classic and contemporary theories of learning and their applications in educational technology and emerging orientations; implications for practice. PREREQ: EDTECH 501.

EDTECH 505 EVALUATION FOR EDUCATIONAL TECHNOLOGISTS (3-0-3) (F/S/SU). Procedures for evaluating educational programs, training systems, and emergent technology applications. PREREQ: EDTECH 501, EDTECH 503.

EDTECH 506 INSTRUCTIONAL MESSAGE DESIGN (3-0-3) (F/S/SU). Apply learning theory principles of visual literacy and graphic design techniques for instructional media development. Select and combine visual and text representations to effectively communicate instructional information.

EDTECH 511 INTERACTIVE COURSEWARE DEVELOPMENT (3-0-3) (F/S/SU). Learning the tools for development of instructional courseware, which is the graphical interface for delivery of online instruction. Development of functional and instructionally effective courseware. PREREQ: EDTECH 502, EDTECH 503, or PERM/INST.

EDTECH 512 ONLINE COURSE DESIGN (3-0-3) (F/S/SU). Emphasizes web-based instructional design for the development of online courses. Consideration is given to various models of online delivery, content organization and presentation, and graphic design. Course participants create a fully developed online course. PREREQ: EDTECH 502 or PERM/INST.

EDTECH 513 MULTIMEDIA (3-0-3) (F/S/SU). Research-based principles of multimedia learning are combined with technical skills of multimedia production to produce a series of digital multimedia projects for classroom and online applications.

EDTECH 521 ONLINE TEACHING IN THE K-12 ENVIRONMENT (3-0-3) (F/S/SU). Examines research-supported practices in online teaching and learning in the K-12 environment. Emphasizes online teaching tools, caseload management, learner engagement, and individualized instruction. Project required.

EDTECH 522 ONLINE TEACHING FOR ADULT LEARNERS (3-0-3) (F/S/SU). Emphasizes andragogy and best practice in online teaching, analyzing online teaching tools, planning, facilitating, and assessing collaborative and interactive e-learning experiences, and gaining practical experience teaching online.

EDTECH 523 ADVANCED ONLINE TEACHING (3-0-3) (F/S/SU). Emphasizes content-specific instructional strategies, methods, data analysis, and improved communication in online instruction. Experience with web-based video/audio communication tools recommended. PREREQ: EDTECH 521 or EDTECH 522.

EDTECH 531 TEACHING AND LEARNING IN VIRTUAL WORLDS (3-0-3) (F/S/SU). Explores teaching and learning in virtual worlds. Project-based design, facilitation, and evaluation of instruction, research, and other resources.

EDTECH 532 EDUCATIONAL GAMES AND SIMULATIONS (3-0-3) (F/S/SU). Explores the theory and implementation of educational games, simulations, and virtual environments for improved instructional engagement. Includes evaluation methods and socio-cultural implications.

EDTECH 533 YOUTUBE FOR EDUCATORS (3-0-3) (F/S/SU). Produce educational video for YouTube using digital video cameras and editing software. Design and develop appropriate instructional activities that integrate online video. Examine the benefits and controversial aspects of video sharing in the classroom.

EDTECH 541 INTEGRATING TECHNOLOGY INTO THE CLASSROOM CURRICULUM (3-0-3) (F/S/SU). Examination and practice in technology integration strategies in classroom environments, using various applications, instructional, and productivity software, evaluating tools and resources, and developing integrated instructional activities.

EDTECH 542 TECHNOLOGY-SUPPORTED PROJECT-BASED LEARNING (3-0-3) (F/S/SU). Examines the Project-Based Learning Model, including development of PBL-based instructional units that engage learners in projects requiring investigation, analysis, synthesis, and presentation in real-world scenarios.

EDTECH 551 TECHNICAL AND GRANT WRITING (3-0-3) (F/S/SU). Project-based instruction entailing various kinds of technical writing, all focusing on a completed grant proposal. Includes evaluating writing for print versus electronic display. Additional focus on writing proficiencies, as needed.

EDTECH 552 OPERATING SYSTEMS AND NETWORKS (3-0-3) (F/S/SU). Introduction to technical competencies for school technology coordinators, addressing network administration, topography, and devices, and advanced operating system features and configurations.

EDTECH 561 RESEARCH IN EDUCATIONAL TECHNOLOGY (3-0-3) (F/S/SU). Review and analysis of research studies in educational technology. Foundations in the relationships among research design, measurement, and statistics; methodology for designing, conducting, and reporting educational technology research. PREREQ: EDTECH 504.

EDTECH 570 ONLINE SKILLS AND STRATEGIES (1-0-1) (On demand). Students learn the fundamentals of learning online. This course gives students the conceptual and software tools that will help them be successful in the online Educational Technology Master’s degree program.

EDTECH 580 SELECTED TOPICS: TECHNOLOGY IN THE CONTENT AREA.

EDTECH 591 PROJECT (0-V-6).

EDTECH 592 PORTFOLIO (0-V-3).

EDTECH 593 THESIS (0-V-6).
Department of Kinesiology

Chair: Ronald Pfeiffer
Kinesiology Building, Room 209, Mail Stop 1710
Telephone (208) 426-4270
FAX (208) 426-1894
e-mail: RPfeiff@boisestate.edu

Graduate Faculty: Kenneth Bell, Yong Gao, Terry-Ann Gibson, Tyler Johnson, Laura Jones, Shelley Lucas, John McChesney, Linda Petlichkoff, Ron Pfeiffer, Lynda Ransdell, Jane Shimon, Shawn Simonson, Caile Spear, Ross Vaughn

Adjunct Graduate Faculty: Paul Baehr, Barry Cusack, Steve Laverson, Gregory Mondin, James Moore, Kevin Shea, Michael Womack

Graduate Degrees Offered
- Master of Kinesiology, Behavioral Studies
- Master of Kinesiology, Biophysical Studies
- Master of Kinesiology, Socio-historical Studies
- Master of Science in Exercise and Sport Studies, Behavioral Studies
- Master of Science in Exercise and Sport Studies, Biophysical Studies
- Master of Science in Exercise and Sport Studies, Socio-historical Studies
- Master of Physical Education in Athletic Administration (ISU)

General Information
The Department of Kinesiology offers two types of master’s degrees: Master of Science in Exercise and Sport Studies and the Master of Kinesiology. Both degrees are designed to accommodate students with diverse academic backgrounds.

The Master of Kinesiology program is practitioner oriented, concluding with a capstone course. The Master of Science in Exercise and Sport Studies is research oriented and suited for those students particularly interested in pursuing a doctoral or professional degree. This degree requires the completion of a thesis, which must be successfully defended at a final oral examination. Both programs offer three areas of emphasis: behavioral, biophysical, and socio-historical studies.

Students in both programs are required to complete a minimum of 3 credits from each area of emphasis (CORE REQUIREMENT), plus 6 credits in "Methods of Inquiry." The student, in conjunction with his/her advisor, selects additional classes to meet the credit hour requirement for the chosen area of emphasis.

It is assumed students are seeking a program which fosters critical thought. Therefore, those graduating must be able to apply the scientific method or problem solving to issues and questions related to one or more of the many dimensions of exercise, sport, and physical activity. Important outcomes for learners include:

1. Acquiring a sound conceptual basis from which leadership can be exercised in the profession.
2. Demonstrating the expertise to interpret, communicate and effectively promote healthy lifestyles in occupational settings.
3. Become intelligent consumers of research with competence to apply findings to the design, administration, evaluation and improvement of sport science-related programs.
4. Possessing the skills needed to develop and conduct research which contributes to the growth of knowledge in the field.

Fundamental to the Graduate Program are faculty who provide a supporting environment and are active in teaching, scholarship, research and professional development.

Application and Admission Requirements
Students will be admitted when the following criteria are met: however, meeting these minimum requirements does not guarantee admission to the program.

1. The Graduate College has received an application for admission, a one-time matriculation fee, and official transcripts of all undergraduate and graduate work.
2. A baccalaureate degree has been granted from an accredited institution.
3. A minimum cumulative grade point average of 3.0 on a 4.0 scale, and at least a 3.0 GPA for the last 60 credits of undergraduate work has been earned.
4. An appropriate pattern of classes providing a foundation for the graduate area of study as determined by Kinesiology Department Graduate Faculty has been completed.
5. Official scores from the verbal, quantitative, and analytical reports of the Graduate Record Examination have been received. The GRE must have been taken within five years of application.
6. The Graduate Program Coordinator has received a resume from the applicant.
7. The Graduate Program Coordinator has received a letter of application describing the applicant’s background, academic interests, career goals and potential faculty mentor.
8. The Graduate Program Coordinator recommends acceptance and approval is granted by the Graduate College.
Master of Kinesiology

Graduate Program Coordinator: Shelley Lucas
Kinesiology Building, Room 108A, Mail Stop 1710
Telephone (208) 426-2446
e-mail: smlucas@boisestate.edu

Degree Requirements

<table>
<thead>
<tr>
<th>Master of Kinesiology</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Core Requirements</strong></td>
<td>10-11</td>
</tr>
<tr>
<td>Select a minimum of one course from each of the following areas:</td>
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</tr>
<tr>
<td>Behavioral Studies</td>
<td></td>
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<tr>
<td>KINES 530 Psychology of Exercise and Sport</td>
<td>3</td>
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<tr>
<td>KINES 560 Motor Learning</td>
<td>3</td>
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<tr>
<td>Biophysical Studies</td>
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<tr>
<td>KINES 500 Functional Anatomy</td>
<td>3</td>
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<td>KINES 510 Physiology of Activity</td>
<td>3</td>
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<tr>
<td>KINES 520 Biomechanics</td>
<td>3</td>
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<tr>
<td>Socio-historical Studies</td>
<td></td>
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<tr>
<td>KINES 535 Sociology of Exercise and Sport</td>
<td>3</td>
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<tr>
<td>KINES 550 Philosophy of Exercise and Sport</td>
<td>3</td>
</tr>
<tr>
<td>*KINES 582 Selected Topics in Sport History</td>
<td>3</td>
</tr>
<tr>
<td>*Repeatable once for credit.</td>
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<tr>
<td>KINES 598 Graduate Seminar</td>
<td>1-2</td>
</tr>
<tr>
<td>(Enrollment is required each Fall semester of all graduate students in residence; two credits may be applied toward graduation.)</td>
<td></td>
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</table>

| Methods of Inquiry | 6 |
| KINES 551 Research Design in Exercise & Sport | 3 |
| Select one of the following courses: | |
| ED-BLESL 503 Applied Theoretical Foundations of Bilingual Education/ESL and Multiculturalism | 3 |
| ED-SPED 552 Instructional Strategies for Special Educators | 3 |
| HIST 500 The Nature of History | 3 |
| KINES 552 Applied Statistical Methods | 3 |
| KINES 572 Grant Writing | 3 |
| PSYC 405G Advanced Statistical Methods | 3 |
| SOC 500 Advanced Social Statistics | 3 |
| SOC 502 Qualitative Social Research Methods | 3 |
| SOC 571 Feminist Sociological Theory | 3 |

| Electives Approved by Graduate Committee | 18 |
| KINES 600 Assessment [Capstone Course] | 3 |

TOTAL | 37-38

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<td>6</td>
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<tr>
<td><strong>Approved Electives</strong></td>
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<tr>
<td>Suggested courses include, but are not limited to the following:</td>
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<tr>
<td>KINES 532 Applied Sport Psychology</td>
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<tr>
<td>KINES 535 Sociology of Exercise and Sport</td>
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<td>KINES 560 Motor Learning</td>
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<tr>
<td>KINES 572 Grant Writing</td>
<td>3</td>
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<tr>
<td>KINES 581 Selected Topics in Youth Sport</td>
<td>3</td>
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<tr>
<td>KINES 582 Selected Topics in Sport History</td>
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<td>KINES 596 Independent Study</td>
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<tr>
<td>KINES 600 Assessment [Capstone Course]</td>
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TOTAL | 37-38

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<tr>
<th>Master of Kinesiology, Biophysical Studies</th>
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<tr>
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<tr>
<td>Suggested courses include, but are not limited to the following:</td>
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<tr>
<td>BIOL 531 Pharmacology</td>
<td>3</td>
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<tr>
<td>KINES 503 Head and Neck Anatomy</td>
<td>3</td>
</tr>
<tr>
<td>KINES 515 Exercise Physiology Lab</td>
<td>3</td>
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<tr>
<td>KINES 527 Mechanical Analysis of Motor Activities</td>
<td>3</td>
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<tr>
<td>KINES 540 Applied Principles of Conditioning</td>
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<tr>
<td>KINES 545 Exercise Testing and Prescription</td>
<td>3</td>
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<td>KINES 570 Health Promotion</td>
<td>3</td>
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<tr>
<td>KINES 572 Grant Writing</td>
<td>3</td>
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<tr>
<td>ME 486G Human Factors Design</td>
<td>3</td>
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<tr>
<td>ME 556 Introduction to Solid Biomechanics</td>
<td>3</td>
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<td>ME 577 Biomaterials</td>
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<tr>
<td>MHLTHSCI 522 Management for Health Professionals</td>
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<tr>
<td>MHLTHSCI 530 Developing In-service Education</td>
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<tr>
<td>MHLTHSCI 548 Counseling Techniques for Health Professionals</td>
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<tr>
<td>MHLTHSCI 550 Current Issues in Health Policy</td>
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<tr>
<td>MHLTHSCI 555 Program Evaluation in Health Delivery Systems</td>
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<tr>
<td>MHLTHSCI 560 Public Health Disaster Preparedness Planning: Risk Management</td>
<td>3</td>
</tr>
<tr>
<td>ZOOL 501 Human Physiology</td>
<td>3</td>
</tr>
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</table>

TOTAL | 37-38
### Master of Science in Exercise and Sport Studies

**Graduate Program Coordinator:** Shelley Lucas  
Kinesiology Building, Room 108A, Mail Stop 1710  
Telephone (208) 426-2446  
e-mail: smlucas@boisestate.edu

#### Degree Requirements

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</table>

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- ED-SPED 552 Instructional Strategies for Special Educators  
- HIST 500 The Nature of History  
- KINES 552 Applied Statistical Methods  
- KINES 572 Grant Writing  
- PSYC 405G Advanced Statistical Methods  
- SOC 500 Advanced Social Statistics  
- SOC 502 Qualitative Social Research Methods  
- SOC 571 Feminist Sociological Theory  

**Electives Approved by Graduate Committee**  
See following areas of emphasis.

- KINES 593 Thesis  

**TOTAL**  
37-38

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### Master of Science in Exercise and Sport Studies, Biophysical Studies (continued)

<table>
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<th>Course Number and Title</th>
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<tr>
<td>ME 486G Human Factors Design</td>
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<td>ME 556 Introduction to Solid Biomechanics</td>
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<tr>
<td>ME 577 Biomaterials</td>
<td>3</td>
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<tr>
<td>MHLTHSCI 522 Management for Health Professionals</td>
<td>3</td>
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<tr>
<td>MHLTHSCI 530 Developing In-service Education</td>
<td>3</td>
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<tr>
<td>MHLTHSCI 548 Counseling Techniques for Health Professionals</td>
<td>3</td>
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<tr>
<td>MHLTHSCI 550 Current Issues in Health Policy</td>
<td>3</td>
</tr>
<tr>
<td>MHLTHSCI 555 Program Evaluation in Health</td>
<td>3</td>
</tr>
<tr>
<td>MHLTHSCI 560 Public Health Disaster Preparedness</td>
<td>3</td>
</tr>
<tr>
<td>ME 577 Biomaterials</td>
<td>3</td>
</tr>
<tr>
<td>ZOOL 501 Human Physiology</td>
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<tr>
<td>KINES 593 Thesis</td>
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<td><strong>TOTAL</strong></td>
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### Master of Science in Exercise and Sport Studies, Socio-historical Studies

<table>
<thead>
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<td><strong>Methods of Inquiry</strong></td>
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<td><strong>Approved Electives</strong></td>
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<td>Suggested courses include, but are not limited to the following:</td>
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<tr>
<td>ED-BLESL 503 Applied Foundations and Multiculturalism</td>
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<tr>
<td>ED-CIFS 505 Philosophy of Education</td>
<td>3</td>
</tr>
<tr>
<td>HIST 503 The Historian and the Classroom</td>
<td>3</td>
</tr>
<tr>
<td>KINES 572 Grant Writing</td>
<td>3</td>
</tr>
<tr>
<td>SOC 510 Conflict and Change in Socio-Cultural Systems</td>
<td>3</td>
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<tr>
<td>SOCWRK 512 HBSE I Human Development Through the Life Cycle</td>
<td>3</td>
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<tr>
<td>SOCWRK 514 Ethnicity, Gender and Class</td>
<td>3</td>
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<tr>
<td>SOCWRK 521 HBSE II Social Dimensions of Human Behavior</td>
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<td>KINES 593 Thesis</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>37-38</strong></td>
</tr>
</tbody>
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**Course Offerings**

**KINES — KINESIOLOGY**

**KINES 503 (ZOOL 503) HEAD AND NECK ANATOMY (2-2-3)(F,S)**. Use of human cadavers to study prosections of head and neck with emphasis on clinical relevance. Integument, osteology, myology; circulatory systems, lymphatics, oral and dental tissues, neuroanatomy, cranial nerves, general innervation, and salivary glands. May be taken for KINES or ZOOL credit but not both. PREREQ: BIOL 191-192 or BIOL 227-228 or PERM/INST.

**KINES 500 FUNCTIONAL ANATOMY (3-0-3)**. A study of gross human anatomy from the descriptive approach with emphasis on the skeletal, muscular, nervous and circulatory systems. Includes cadaver prosection. In addition, indepth study of joint structure and function, gross-motor-movement, and skill will be included. Video analysis will be utilized.

**KINES 510 PHYSIOLOGY OF ACTIVITY (3-0-3)**. A study of the various factors affecting human performance and subsequent adaptations of the body to single and repeated bouts of exercise.

**KINES 515 EXERCISE PHYSIOLOGY LAB (2-2-3)**. Practical application of the principles that govern response and adaptation of the human body to exercise, utilizing laboratory equipment to collect data and analyze results. PREREQ: KINES 510 or PERM/INST.

**KINES 520 BIOMECHANICS (3-0-3)**. A study of the internal and external forces acting on the human body and the effects produced by these forces. Analysis of movement will focus on qualitative techniques.

**KINES 525 MECHANICAL ANALYSIS OF MOTOR ACTIVITIES (3-0-3)**. An introduction to the analysis techniques used to study the mechanics of human motion. Topics will include cinematography, videography, force transducers, electromyography and computer analysis techniques. PREREQ: KINES 520 or PERM/INST.

**KINES 530 PSYCHOLOGY OF EXERCISE AND SPORT (3-0-3)**. A study of psychological factors as they relate to exercise, sport and performance. Content includes personality traits, motivation, anxiety/arousal, and intervention/coping strategies.

**KINES 531 PHYSICAL ACTIVITY AND AGING (3-0-3)(F,S)**. Physiological aspects of aging and the influence of physical activity on the aging process, functional abilities, independence, and quality of life.

**KINES 532 APPLIED SPORT PSYCHOLOGY (3-0-3)(F,S)**. Examines issues related to the psychological impact of competition and examines psychological skills training applicable to physical educators, coaches, and athletes, as well as how these skills may be useful in the psychological rehabilitation of the injured athlete and career termination.

**KINES 535 SOCIOLOGY OF EXERCISE AND SPORT (3-0-3)**. A study of the relationships among sport and other facets of society, including social organization, group behavior and social interaction patterns.

**KINES 540 APPLIED PRINCIPLES OF CONDITIONING (2-2-3)**. Advanced study of the conditioning process. Emphasis on application of the conceptual to practical situations. Involves program planning, objectives, exercise analysis for conditioning specificity, exercise prescription and other conditioning variables affecting performance. PREREQ: KINES 510 or PERM/INST.

**KINES 545 EXERCISE TESTING AND PRESCRIPTION (2-2-3)**. A study of the current methods and procedures used in coronary heart disease risk detection and reduction, including the recommended guidelines by the American College of Sports Medicine for exercise testing and prescription.

**KINES 550 PHILOSOPHY OF EXERCISE AND SPORT (3-0-3)**. A study of the philosophical foundations underlying exercise and sport. Topics include...
values development, design and evaluation of individual and program philosophy and goal structuring.

KINES 551 RESEARCH DESIGN IN EXERCISE AND SPORT (3-0-3)(S). Includes critical analysis of published research in terms of research design, statistical procedures, concepts of validity, experimentation and control; classification of various research methods; various types of research problems; and the relevant attributes of experimental designs. A research proposal is a requirement of the course.

KINES 552 (MHLTHSCI 552) APPLIED STATISTICAL METHODS (3-0-3)(F,S). An introduction to statistical techniques utilized in the treatment of data. The techniques to be covered include measures of central tendency and variability, correlation, probability, analysis of variance, and regression analysis. May be taken for KINES or MHLTHSCI credit, but not both. PREREQ: Completion of an undergraduate statistics course and graduate standing in MHS or Kinesiology, or PERM/INST.


KINES 560 MOTOR LEARNING (3-0-3). A study of the relevant empirical evidence and research in the field of motor learning and performance, including the learning process, feedback, timing, information processing, transfer, perception, motivation and practice conditions.

KINES 570 (MHLTHSCI 570) HEALTH PROMOTION (3-0-3)(F/S). Coverage of individual, interpersonal, and group/community theories of health behavior change, with emphasis on designing, implementing, and evaluating theory-based interventions. Other topics include studying the impact of diversity and social and economic factors on health, and improving the effectiveness of health behavior change programs for underserved groups. May be taken for KINES or MHLTHSCI credit, but not both.

KINES 572 (MHLTHSCI 572) GRANT WRITING (3-0-3)(SU). Examination of the process of securing resources from external entities. Students will learn and apply a variety of techniques employed in proposal development and grant authorship. May be taken for KINES or MHLTHSCI credit, but not both.

KINES 574 (MHLTHSCI 574) HEALTH PROMOTION AND OPTIMAL AGING (3-0-3)(F)(Even years). Focus on promoting healthful behavior and quality of life among older adults. Application of theory, research, and practice to gerontological health promotion and wellness. May be taken for KINES or MHLTHSCI credit, but not both.

KINES 575 COMPUTERS IN EXERCISE AND SPORT (3-0-3). An introduction to computer applications in the exercise and sport sciences, including methods for collecting data. Processing of data will include both microcomputer software and the Statistical Analysis System (SAS) package.

SELECTED TOPICS:
- KINES 581 SELECTED TOPICS IN YOUTH SPORT.
- KINES 582 SELECTED TOPICS IN SPORT HISTORY.
- KINES 583 SELECTED TOPICS IN SPORTS NUTRITION.

KINES 590 PRACTICUM (0-0-3), Available on a selective, limited basis. Culminating experience designed to provide students with an opportunity to apply skills learned in the classroom. PREREQ: PERM/INST.

KINES 593 THESIS (6 credits). A scholarly paper containing the results of original research. PREREQ: Admission to candidacy and approval of the student’s graduate committee.

KINES 596 GRADUATE INDEPENDENT STUDY (Variable credit). Opportunity for the student to pursue a topic of interest on an individual basis.

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Master of Physical Education in Athletic Administration

ISU/BSU Cooperative Program

Course Program Coordinator: Shelley Lucas
Kinesiology Building, Room 108A, Mail Stop 1710
Telephone (208) 426-2446
FAX (208) 426-1894
e-mail: smlucas@boisestate.edu

Idaho State University Graduate Faculty: Karen Appleby, John Fitzpatrick, Howard Gauthier, Mike Lester, Gerard Lyons

General Information

The Master of Physical Education in Athletic Administration is a cooperative graduate studies program. Idaho State University (ISU) and Boise State University (BSU) have agreed to offer ISU’s existing Master of Physical Education (MPE) graduate degree in Athletic Administration in Boise. Entering students will be able to complete the entire 33 credit hour degree in Boise and take up to 15 credits of BSU courses as part of the program requirements. Further stipulations of this cooperative venture are:

1. ISU will continue to be the degree granting institution. Students will initially apply for admission to ISU, and if accepted, apply for admission to BSU. An application fee must be paid to each institution. Courses from both institutions that are offered in Boise will be printed in the Boise State University Schedule of Classes after Kinesiology courses and listed under a separate and distinct heading of “Athletic Administration (ATHLADM)”. Under the title of each course it will be stated that the course is part of the ISU Cooperative Athletic Administration Program.

2. ISU Graduate Faculty should formally advise all students. A BSU student may request an advisor from BSU. The ISU SSPED Graduate Program Coordinator must approve this request.

3. ISU Graduate Faculty should chair all projects, Thesis, and comprehensive exam committees. A BSU student may request that a BSU Graduate Faculty member serve as major advisor. This request must be approved by the ISU SSPED Graduate Program Coordinator. BSU faculty who hold At-Large Graduate Faculty status at ISU may serve as committee members and upon request will submit comprehensive examination questions and participate in the evaluation of same.

Application and Admission Requirements

Students will register at Boise State University for all ISU and BSU courses taken in Boise in accordance with the procedures stated in the Boise State University Schedule of Classes.

Students will pay fees to Boise State University and receive BSU activity cards (consistent with current BSU practices for full-time and part-time students) and thereby receive the appropriate services and use of campus facilities.
Financial Aid

Students taking ISU and/or BSU courses in Boise will be considered as “in-residence” at Boise State. Therefore, students applying for financial aid will do so through the Financial Aid Office at Boise State.

Due to a limited number and amount of scholarship funds at BSU, scholarship monies are not available to students in cooperative programs. If there are scholarships at ISU specifically earmarked for the Athletic Administration program, or if scholarships are developed for this program, they will be awarded by ISU and handled through the BSU Financial Aid Office as are all other outside donor awards.

Graduation

Idaho State University graduation requirements must be met by each student seeking an MPE degree in Athletic Administration. Therefore, students must apply for graduation through ISU and a final evaluation of their transcripts will be completed by the ISU Registrar.

Degree Requirements

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students in the Cooperative MPE degree in Athletic Administration between ISU and BSU would be limited to taking a maximum of 15 BSU credits, subject to approval from their ISU advisor.</td>
<td>18</td>
</tr>
<tr>
<td>ATHLADM 505 (PE 605) Leadership and Administration</td>
<td>3</td>
</tr>
<tr>
<td>ATHLADM 515 OR KINES 550 (PE 615) Philosophy of Exercise and Sport</td>
<td>3</td>
</tr>
<tr>
<td>ATHLADM 531 (PE 631) Athletics and the Law</td>
<td>3</td>
</tr>
<tr>
<td>ATHLADM 535 (PE 635) Management of Athletics</td>
<td>3</td>
</tr>
<tr>
<td>ATHLADM 540 OR KINES 551 (PE 640) Research and Writing</td>
<td>3</td>
</tr>
<tr>
<td>ATHLADM 549 (PE 649) Issues in Administration</td>
<td>3</td>
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</tbody>
</table>

Thesis Option

ATHLADM 550 (PE 650) Thesis 1-6
Approved Electives 9

OR

Non-thesis Option

ATHLADM 510 (PE 610) Advanced Sport Psychology OR KINES 530 Psychology of Exercise and Sport | 3 |
ATHLADM 545 (PE 645) Sports Medicine | 3 |
ATHLADM 555 (PE 655) Internship | 1-6 |
Approved Electives | 9 |

TOTAL 33

Department of Literacy

Chair: Stan Steiner
Education Building, Room 504, Mail Stop 1725
Telephone (208) 426-2862
e-mail: stansteiner@boisestate.edu

Graduate Faculty: James Armstrong, Mary Ann Cahill, Margaret Chase, Lee Dubert, Anne Gregory, Susan Martin, Eun Hye Son, Stan Steiner, Roger Stewart

Graduate Degree Offered

• Master of Arts in Education, Literacy

General Information

Based on the standards recommended by the International Reading Association and the National Council for the Teachers of English, the Master of Arts in Education, Literacy, is designed to extend each candidate’s academic and professional background in the field of language and literacy learning and development. The combination of course requirements and areas of emphasis allows candidates to develop an area of expertise that is relevant to their professional interests and goals. Coursework options include emphasis in a variety of domains: adolescent literacy, early literacy, English language learners, language arts, literacy and technology, literacy coaching, literature of youth, middle literacy, and reading specialists. Students will continue to have the option of earning an Idaho State Literacy endorsement.

Master of Arts in Education, Literacy

Graduate Program Coordinator: Stan Steiner
Education Building, Room 503, Mail Stop 1725
Telephone (208) 426-3962
e-mail: stansteiner@boisestate.edu

Degree Requirements

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>Educational Foundations</td>
<td>7</td>
</tr>
<tr>
<td>ED-CIFS 506 Issues in Education</td>
<td>4</td>
</tr>
<tr>
<td>ED-LTCY 540 Foundation of Literacy Instruction</td>
<td>3</td>
</tr>
<tr>
<td>Research in Literacy</td>
<td>2</td>
</tr>
<tr>
<td>ED-CIFS 580 Selected Topics: Educational Research</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 560 Interpreting Research in Literacy</td>
<td>2</td>
</tr>
<tr>
<td>Assessment and Instruction</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 541 Assessment and Instruction: Reading Difficulties K-12</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 542 Best Practices in Literacy Improvement</td>
<td>3</td>
</tr>
<tr>
<td>Literacy Processes</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 554 Review of Literacy Processes and Practices</td>
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</table>
### Master of Arts in Education, Literacy (continued)

<table>
<thead>
<tr>
<th><strong>Literacy and Culture</strong></th>
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<tbody>
<tr>
<td>ED-BLESL 502 Methods of Teaching ESL: Maximizing Innovative Pedagogical Approaches to Teaching ESL</td>
<td>3</td>
</tr>
<tr>
<td>ED-CIFS 610 The American Culture and the Context of Schooling</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 539 Language, Literacy and Culture</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 550 Literature and Culture</td>
<td>3</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Linguistics and Language Development</strong></th>
<th>3</th>
</tr>
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<tbody>
<tr>
<td>ED-ECS 524 Play, Language Acquisition, and Literacy: ECE/ECSE</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 548 Psycholinguistics and Literacy</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 505 Linguistics</td>
<td>3</td>
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<table>
<thead>
<tr>
<th><strong>Elective Core Courses</strong></th>
<th>3</th>
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</thead>
<tbody>
<tr>
<td>Course selected may not be used to fulfill credit requirements for either the area of emphasis or in the Project/Thesis option.</td>
<td></td>
</tr>
<tr>
<td>ED-LTCY 532 Advanced Principles and Practices in Teaching Language Arts and Linguistics</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 543 Seminar in Literacy Education</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 544 Content Literacy in Secondary Schools</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 545 Writing Processes, Instruction, and Assessment: K-8</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 546 Advanced Study of Children’s Literature</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 547 Advanced Young Adult Literature</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 550 Content Area Literacy: K-8</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 551 Literacy Leadership</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 552 Technology and Literacy</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 556 Large-Scale Literacy Assessment</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 557 Research Base for Contemporary Literacy Curricula</td>
<td>3</td>
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</table>

### Options

<table>
<thead>
<tr>
<th><strong>I. Thesis or Project</strong></th>
<th>9</th>
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</thead>
<tbody>
<tr>
<td>Students who wish to complete the project or thesis option must do so with the assistance of his or her advisor. Students would be required to complete 9 credits either ED-LTCY 591 PROJECT (3-6 credits) and electives (3-6 credits) OR ED-LTCY 593 THESIS (3-6 credits) and electives (3-6 credits).</td>
<td></td>
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<tr>
<td>ED-LTCY 591 Project</td>
<td>3</td>
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<tr>
<td>ED-LTCY 593 Thesis</td>
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<tr>
<td>Electives</td>
<td>3-6</td>
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<table>
<thead>
<tr>
<th><strong>II. Area of Emphasis</strong></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Select from one of the following:</td>
<td></td>
</tr>
<tr>
<td><strong>Adolescent Literacy</strong></td>
<td></td>
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<tr>
<td>Select three from the following course options:</td>
<td></td>
</tr>
<tr>
<td>ED-BLESL 506 Multicultural Literature: Promoting Social Justice</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 544 Content Literacy in Secondary Schools</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 547 Advanced Young Adult Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 501 &quot;The Teaching of Writing&quot;</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 502 Teaching Creative Nonfiction, Poetry, and Fiction Writing</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 581 Literature for use in Junior and Senior High Schools</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 582 Selected Topics in Teaching English Language Arts</td>
<td>3</td>
</tr>
</tbody>
</table>

### Master of Arts in Education, Literacy (continued)

<table>
<thead>
<tr>
<th><strong>Early Literacy</strong></th>
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</thead>
<tbody>
<tr>
<td>Select three from the following course options:</td>
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</tr>
<tr>
<td>ED-BLESL 502 Methods of Teaching ESL: Maximizing Innovative Pedagogical Approaches to Teaching ESL</td>
<td>3</td>
</tr>
<tr>
<td>ED-ECS 523 Early Learning Models: ECE/ECSE</td>
<td>3</td>
</tr>
<tr>
<td>ED-ECS 524 Play, Language Acquisition, and Literacy: ECE/ECSE</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 545 Writing Processes, Instruction, and Assessment: K-8</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 546 Advanced Study of Children’s Literature</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 549 Idaho Comprehensive Literacy Course</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 550 Content Area Literacy: K-8</td>
<td>3</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>English Language Learners</strong></th>
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<tbody>
<tr>
<td>Select three from the following course options:</td>
<td></td>
</tr>
<tr>
<td>ED-BLESL 501 Culturally Diverse Learners</td>
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<tr>
<td>ED-BLESL 502 Methods of Teaching ESL: Maximizing Innovative Pedagogical Approaches to Teaching ESL</td>
<td>3</td>
</tr>
<tr>
<td>ED-BLESL 505 Applied Linguistics: Nurturing Communicative Competence</td>
<td>3</td>
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<table>
<thead>
<tr>
<th><strong>Language Arts</strong></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Select three from the following course options:</td>
<td></td>
</tr>
<tr>
<td>ED-LTCY 532 Advanced Principles and Practices in Teaching Language Arts and Linguistics</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 544 Content Literacy in Secondary Schools</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 545 Writing Processes, Instruction, and Assessment: K-8</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 546 Advanced Study of Children’s Literature</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 547 Advanced Young Adult Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 501 The Teaching of Writing</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 509 Book Arts</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 582 Selected Topics in Teaching English Language Arts</td>
<td>3</td>
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</table>

<table>
<thead>
<tr>
<th><strong>Literacy and Technology</strong></th>
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</thead>
<tbody>
<tr>
<td>Select three from the following course options:</td>
<td></td>
</tr>
<tr>
<td>ED-LTCY 552 Technology and Literacy</td>
<td>3</td>
</tr>
<tr>
<td>EDTECH 541 Integrating Technology into Classroom Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 582 Selected Topics in Teaching English Language Arts</td>
<td>3</td>
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</tbody>
</table>

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## Master of Arts in Education, Literacy (continued)

### Literature for Youth
Select **three** from the following course options:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED-BLESL 506</td>
<td>Multicultural Literature: Promoting Social Justice</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 546</td>
<td>Advanced Study of Children’s Literature</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 547</td>
<td>Advanced Young Adult Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 502</td>
<td>Teaching Creative Nonfiction, Poetry, and Fiction</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 581</td>
<td>Literature for use in Junior and Senior High Schools</td>
<td>3</td>
</tr>
</tbody>
</table>

### Middle Literacy
Select **three** from the following course options:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED-BLESL 506</td>
<td>Multicultural Literature: Promoting Social Justice</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 545</td>
<td>Writing Processes, Instruction, and Assessment: K-8</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 546</td>
<td>Advanced Study of Children’s Literature</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 547</td>
<td>Advanced Young Adult Literature</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 550</td>
<td>Content Area Literacy: K-8</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 581</td>
<td>Literature for use in Junior and Senior High Schools</td>
<td>3</td>
</tr>
</tbody>
</table>

### Reading Coaches
Select **three** from the following course options:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED-BLESL 502</td>
<td>Methods of Teaching ESL: Maximizing Innovative Pedagogical Approaches to Teaching ESL</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 532</td>
<td>Advanced Principles and Practices in Teaching Language Arts and Linguistics</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 541</td>
<td>Assessment and Instruction: Reading Difficulties K-12</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 542</td>
<td>Best Practices in Literacy Improvement</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 545</td>
<td>Writing Processes, Instruction, and Assessment: K-8</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 548</td>
<td>Psycholinguistics and Literacy</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 549</td>
<td>Idaho Comprehensive Literacy Course</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 551</td>
<td>Literacy Leadership</td>
<td>3</td>
</tr>
</tbody>
</table>

### Reading Specialist
Select **three** from the following course options:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED-BLESL 502</td>
<td>Methods of Teaching ESL: Maximizing Innovative Pedagogical Approaches to Teaching ESL</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 532</td>
<td>Advanced Principles and Practices in Teaching Language Arts and Linguistics</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 542</td>
<td>Best Practices in Literacy Improvement</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 545</td>
<td>Writing Processes, Instruction, and Assessment: K-8</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 548</td>
<td>Psycholinguistics and Literacy</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 549</td>
<td>Idaho Comprehensive Literacy Course</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 551</td>
<td>Literacy Leadership</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 555</td>
<td>Directing and Supervising Reading Programs</td>
<td>3</td>
</tr>
<tr>
<td>ED-LTCY 556</td>
<td>Large-Scale Literacy Assessment</td>
<td>3</td>
</tr>
<tr>
<td>ED-SPED 552</td>
<td>Instructional Strategies for Special Educators</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 582</td>
<td>Selected Topics in Teaching English Language Arts</td>
<td>3</td>
</tr>
</tbody>
</table>

## Course Offerings

**ED-LTCY — EDUCATION-LITERACY**

**ED-LTCY 532 ADVANCED PRINCIPLES AND PRACTICES IN TEACHING LANGUAGE ARTS AND LINGUISTICS (3-0-3)(F/SU).** Study of the theoretical constructs of reading, the psychological and pedagogical foundations of reading instruction, and learn to create and improve reading education programs in elementary and secondary classrooms.

**ED-LTCY 540 FOUNDATIONS OF LITERACY INSTRUCTION (3-0-3) (F/S)(SU).** Studies the theoretical constructs of reading and writing, the psychological and pedagogical foundations of literacy instruction, and the creation and improvement of literacy education programs in elementary and secondary classrooms.

**ED-LTCY 541 ASSESSMENT AND INSTRUCTION: READING DIFFICULTIES K-12 (3-0-3)(S)(SU).** Diagnostic, standardized, and informal (performance-based) assessment procedures will be studied, evaluated, learned, and practiced. Instructional strategies for elementary and secondary students with reading difficulties will be learned and linked to assessment procedures. **PREREQ:** Admission to graduate program.

**ED-LTCY 542 BEST PRACTICES IN LITERACY IMPROVEMENT (2-1-3) (F/S)(SU).** Diagnostic instructional and assessment procedures will be used with 1-3 elementary or secondary students in the Boise State Tutoring Program in Reading. Each participant prepares a professional quality client report. One meeting per week with the client outside of class time is required. **PREREQ:** ED-LTCY 541 or the equivalent.

**ED-LTCY 543 SEMINAR IN LITERACY EDUCATION (3-0-3)(F/S)(SU).** Covers current issues and trends in literacy education and leadership techniques. **PREREQ:** ED-LTCY 540 or PERM/INST.

**ED-LTCY 544 CONTENT LITERACY IN SECONDARY SCHOOL (3-0-3)(F/S)(SU).** Emphasis on using instructional materials in the various content subjects and developing instructional skills to meet the reading, writing, and studying needs of all learners in today’s diverse society. Students will examine professional literature on best teaching practices. **PREREQ:** Admission to Graduate Secondary Teacher Certification and ED-SPED 550. Instructor permission to waive prerequisites may be given to all students not enrolled in the secondary education certification program (Block 1B). **COREQ:** ED-CIFS 561 and the content methods course for the declared major.

**ED-LTCY 545 WRITING PROCESSES, INSTRUCTION, AND ASSESSMENT: K-8 (3-0-3)(S).** Focuses on learning, teaching, and assessment of writing. The writing process and writing in a variety of genres are emphasized.

*Students seeking to take a course(s) with co-requisites must request a waiver.

**Note:** Completion of the required courses in the Master of Arts in Education, Literacy may not qualify the candidate for a state of Idaho Reading Endorsement for state certification. With the assistance of his or her advisor, the candidate can select appropriate electives to meet endorsement requirements. A complete list of courses that meet the Idaho State Reading Endorsement requirements can be found at [http://education.boisestate.edu/literacy](http://education.boisestate.edu/literacy).
ED-LTCY 546 ADVANCED STUDY OF CHILDREN’S LITERATURE (3-0-3)(F/SU). In-depth literary analysis of children’s literature from preschool to early adolescence, including multicultural literature. Development of children’s literature activities for classroom, libraries, and other settings.

ED-LTCY 547 ADVANCED YOUNG ADULT LITERATURE (3-0-3)(SU). Offers an update in diverse young adult literature, as well as research, critical analysis and instructional strategies for a variety of settings. Intended for teachers, librarians, media generalists, and others working with young adults.

ED-LTCY 548 PSYCHOLINGUISTICS AND LITERACY (3-0-3) (F/SU). Psychological processes and strategies by which readers and writers construct and reconstruct the message of a text. Application of theoretical conclusions to teaching practices.

ED-LTCY 549 IDAHO COMPREHENSIVE LITERACY COURSE (3-0-3) (F/S/SU). Research-based best reading practices focused on language structure and literacy instruction, comprehension research, material selection, and assessment and intervention strategies. Contemporary and historical perspectives will be examined.

ED-LTCY 550 CONTENT AREA LITERACY: K-8 (3-0-3)(F/S/SU). Knowledge, strategies, and tools for comprehension and vocabulary, and introduction to writing of narrative and expository texts in content areas. For students seeking K-8 Idaho State Reading Endorsement.

ED-LTCY 551 LITERACY LEADERSHIP (3-0-3)(S). Examines theories about leadership of school literacy programs. Leadership theory and research as related to literacy curriculum and instruction are explored.

ED-LTCY 552 TECHNOLOGY AND LITERACY (3-0-3)(SU). Instructs students how they can best utilize the computer, to assist, enhance and enrich their curriculum and instruction. Students will explore the fundamentals of the Internet, create animations, and design instructional reading/writing strategies to be used for both remediation and enrichment.

ED-LTCY 554 REVIEW OF LITERACY PROCESSES AND PRACTICES (3-0-3) (F/S/SU). Examines the interrelationship of the literacy processes through the examination of epistemological, philosophical, theoretical, and pedagogical literacy models.

ED-LTCY 555 DIRECTING AND SUPERVISING READING PROGRAMS (3-0-3) (F). The literacy specialist’s leadership role in the planning and delivery of reading instruction from goal setting, program planning, decision-making, problem solving, program supervision, and program evaluation for students from varied cultural and linguistic backgrounds will be examined.

ED-LTCY 556 LARGE-SCALE LITERACY ASSESSMENT (3-0-3)(F). Explores large-scale assessment as it relates to literacy assessment; examines current approaches to large scale assessment, assessment design, and specific assessments such as PIRLS, PISA, NAEP, state level tests, etc. with emphasis given to how this data are being interpreted and used for social and political purposes.

ED-LTCY 557 RESEARCH BASE FOR CONTEMPORARY LITERACY CURRICULA (3-0-3)(F/S). Investigates contemporary issues related to research on literacy in terms of theoretical frameworks, research methods, and implications for curriculum, instruction, and assessment. Applies relevant theories and models to the design and development of school curricula in the area of literacy.

ED-LTCY 559 LANGUAGE, LITERACY AND CULTURE (3-0-3)(F). Introduces students to the ways in which social structuring, cultural assumptions, and language use bear on public policy formation and interactions in such areas as the classroom, professions, government, business and industry, and social service agencies.

ED-LTCY 560 INTERPRETING RESEARCH IN LITERACY (2-0-2)(F/S). Examines literacy research involving the generation and refinement of models and theories as well as the traditional quest for better methods of teaching reading and writing. Strategies in interpreting and analyzing the professional literature will also be emphasized.

**Department of Special Education and Early Childhood Studies**

**Chair:** Keith Allred  
Education Building, Room 203, Mail Stop 1725  
Telephone (208) 426-2814  
e-mail: rfleming@boisestate.edu

**Graduate Faculty:** Keith Allred, Beatrice Harris, Jack Joseph Hourcade, Michael Humphrey, Evelyn Johnson, Juli Pool, Lee Woods

**Adjunct Graduate Faculty:** Elizabeth Noonan, Mary Olsen, Charlotte Silva

**Graduate Degrees Offered**

- Master of Arts in Education, Early Childhood Studies
- Master of Education in Early Childhood Studies
- Master of Arts in Special Education
- Master of Education in Special Education

**General Information**

The mission of the master’s degrees in Early Childhood Studies is to provide advanced professional preparation for candidates with a common core and specialization in early childhood studies. The program blends two disciplines, early childhood education and early childhood special education. Thus, a candidate is qualified to work with all young children, birth through grade three. The program may or may not lead to certification to teach in public schools depending on the goals of the candidate. The Master of Arts requires a thesis, and the Master of Education requires a project or comprehensive examination.

Special Education graduate programs are designed for experienced professionals who seek advanced knowledge and skills in the field of special education. Such professionals may be employed as special educators in public schools, or they may work with or on behalf of individuals with disabilities in community or agency settings.

The Master of Arts in Special Education and Master of Education in Special Education are similar in course work requirements but differ in the culminating activity. The Master of Arts culminates in a thesis and is designed for candidates interested in scholarly research. The Master of Education culminates in either a comprehensive examination or a project and is designed for practitioners.

**Note:** Completion of the required courses in a Special Education graduate program does not qualify the candidate for initial certification to teach special education in public schools. The candidate should seek the help of an advisor to plan additional course work that satisfies certification requirements.
Degree Requirements

### Master of Arts in Education, Early Childhood Studies

**Graduate Program Coordinator:** Juli Pool  
Education Building, Room 209, Mail Stop 1725  
Telephone (208) 426-2807  
e-mail: julipool@boisestate.edu

#### Course Number and Title Credits

<table>
<thead>
<tr>
<th>Course Number and Title</th>
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<tbody>
<tr>
<td>ED-CIFS 506 Issues in Education</td>
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<tr>
<td>ED-ECS 521 Readings: ECE/ECSE</td>
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<tr>
<td>ED-ECS 522 Development and Curriculum: ECE/ECSE</td>
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<td>ED-ECS 525 Leadership: ECE/ECSE</td>
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#### Culminating Activity Coursework

- ED-CIFS 503 Fundamentals of Educational Research | 3 |
- ED-ECS 593 Thesis | 6 |
- Approved Electives | 5 |

**TOTAL** | 33 |

Note: Completion of the required courses in the Master of Arts in Education, Early Childhood Studies does not qualify the candidate for state certification in Blended Early Childhood/Early Childhood Special Education. The candidate should seek advising to determine certification requirements.

### Master of Education in Early Childhood Studies

**Graduate Program Coordinator:** Juli Pool  
Education Building, Room 209, Mail Stop 1725  
Telephone (208) 426-2807  
e-mail: julipool@boisestate.edu

#### Course Number and Title Credits

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</table>
| Early Childhood Studies Coursework  
  ED-ECS 521 Readings: ECE/ECSE | 3 |
| ED-ECS 522 Development and Curriculum: ECE/ECSE | 3 |
| ED-ECS 523 Early Learning Models: ECE/ECSE | 3 |
| ED-ECS 524 Play, Language Acquisition, and Literacy: ECE/ECSE | 3 |

#### Culminating Activity Options:

**Option 1: Project**

- ED-CIFS 503 Fundamentals of Educational Research | 3 |
- ED-ECS 591 Project | 6 |
- Approved Electives | 5 |

**TOTAL** | 14 |

**Option 2: Comprehensive Examination**

- ED-CIFS 505 Philosophy of Education | 3 |
- ED-CIFS 580 Selected Topics: Interpreting Educational Research | 2 |
- ED-ECS 600 Assessment [Comprehensive Examination] | 1 |
- Approved Electives | 8 |

**TOTAL** | 33 |

Note: Completion of the required courses in the Master of Education, Early Childhood Studies does not qualify the candidate for state certification in Blended Early Childhood/Early Childhood Special Education. The candidate should seek advising to determine certification requirements.
# Master of Arts in Special Education

**Graduate Program Coordinator:** Keith Allred  
Education Building, Room 203, Mail Stop 1725  
Telephone (208) 426-2814  
e-mail: keithallred1@boisestate.edu

## Degree Requirements

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<tr>
<td>ED-SPED 551 Counseling and Collaboration for Educators</td>
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<tr>
<td>ED-SPED 552 Instructional Strategies for Special Educators</td>
<td>3</td>
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<tr>
<td>ED-SPED 556 Seminar in Severe Disabilities</td>
<td>3</td>
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<tr>
<td>ED-SPED 554 Positive Behavior Programs</td>
<td>3</td>
</tr>
<tr>
<td>ED-SPED 555 Issues and Trends in Special Education</td>
<td>3</td>
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<tr>
<td>ED-SPED 590 Practicum: Special Education</td>
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# Master of Education in Special Education

**Graduate Program Coordinator:** Keith Allred  
Education Building, Room 203, Mail Stop 1725  
Telephone (208) 426-2814  
e-mail: keithallred1@boisestate.edu

## Degree Requirements

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<tr>
<td><strong>OR</strong></td>
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<tr>
<td>ED-SPED 556 Seminar in Severe Disabilities</td>
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<tr>
<td>ED-SPED 554 Positive Behavior Programs</td>
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<tr>
<td>ED-SPED 555 Issues and Trends in Special Education</td>
<td>3</td>
</tr>
<tr>
<td>ED-SPED 590 Practicum: Special Education</td>
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<td><strong>Option 1: Project</strong></td>
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</tbody>
</table>
Department of Special Education and Early Childhood Studies

Course Offerings

ED-ECS 503 ASSESSMENT FOR K-3 PROGRAM PLANNING (2-0-2)(S). State, formal, and informal assessments with emphasis on developmentally appropriate program planning. Procedures for screening and eligibility determination, development of individualized Education Plans, and understanding NAEYC and DEC standards of practice are incorporated. PREREQ: Graduate Standing or PERM/INST.

ED-ECS 506 INFANTS AND TODDLERS IN NATURAL ENVIRONMENTS: ECE/ECSE (3-0-3)(S). Development of infants, both typically developing and those with delays and disabilities and program planning. Focus on attachment processes, learning in naturalistic environments, and communication with families. NAEYC and DEC standards of practice are incorporated. PREREQ: Graduate Standing or PERM/INST.

ED-ECS 507 ASSESSMENT FOR BIRTH-TO-FIVE PROGRAM PLANNING: ECE/ECSE (2-0-2)(S). State, informal, and formal assessment of infants and preschool age children, both typically and atypically developing, with emphasis on program planning, intervention, and communication with families. NAEYC and DEC standards of practice are incorporated. PREREQ: Graduate Standing or PERM/INST.

ED-ECS 508 PRESCHOOL CURRICULUM: ECE/ECSE (3-0-3)(F). Developmentally appropriate curriculum and materials for preschool age children, both typically developing and those with delays and disabilities, NAEYC and DEC standards of practice are incorporated. PREREQ: Graduate Standing or PERM/INST.

ED-ECS 516 SOCIAL STUDIES, SCIENCE, AND MATH CURRICULA AND INSTRUCTION (3-0-3)(S). Primary grade social studies, science, and math curricula, philosophy, and goals. Developmentally appropriate content and materials, with integration across disciplines emphasized. NAEYC and DEC standards of practice are incorporated. PREREQ: Graduate Standing or PERM/INST. COREQ: ED-ECS 506.

ED-ECS 521 EARLY CHILDHOOD: READINGS (3-0-3)(S). Past and current research in early childhood education will be reviewed and synthesized in a seminar format. Students will determine a specific research area to study in depth.

ED-ECS 522 DEVELOPMENT AND CURRICULUM: ECE/ECSE (3-0-3)(F). Development in all domains is examined in depth, birth to age eight. Curriculum is examined as it fosters development in ALL young children.

ED-ECS 523 EARLY LEARNING MODELS: ECE/ECSE (3-0-3)(S). Models of effective early childhood education, birth to age eight, for ALL young children and their families.

ED-ECS 524 PLAY, LANGUAGE ACQUISITION, AND LITERACY: ECE/ECSE (3-0-3)(F). Language development, acquisition and the relationship between play, language and emergent literacy in ALL young children, birth to age eight.

ED-ECS 525 LEADERSHIP: ECE/ECSE (3-0-3)(S). Refining practice through reflection, collaboration with colleagues and communities, and advocacy for ALL young children and their families. Fieldwork is required.

ED-ECS 562 TEACHING EXPERIENCE IN PRIMARY GRADES: ECE/ECSE (0-V-V)(F/S). Primary grade student teaching experience for graduate students pursuing the ECE/ECSE blended certificate. Teaching responsibility in inclusive and pullout classrooms for children with and without delays and disabilities. Seminars are conducted. Experience is consistent with state certification standards, and NAEYC and DEC standards of practice (Pass/Fail.) PREREQ: Graduate Standing or PERM/INST. COREQ: ED-ECS 516.

ED-ECS 563 TEACHING EXPERIENCE IN PRESCHOOL PROGRAMS: ECE/ECSE (0-V-V)(F/S). Preschool student teaching experience for graduate students pursuing the ECE/ECSE blended certificate. Teaching responsibility in inclusive and pullout classrooms for children with and without delays and disabilities. Seminars are conducted. Experience is consistent with state certification standards, NAEYC, and DEC standards of practice (Pass/Fail.) PREREQ: Graduate Standing or PERM/INST. COREQ: ED-ECS 516.

ED-ECS 564 TEACHING EXPERIENCE IN NATURAL ENVIRONMENTS, BIRTH TO THREE: ECE/ECSE (0-V-V)(F/S/SU). Infant/toddler program student teaching experience for graduate students pursuing the ECE/ECSE blended certificate. Responsibilities in a natural environment, center or home, for infants and toddlers with and without disabilities including family contact. Weekly seminars. Experience is consistent with state certification standards, NAEYC, and DEC standards of practice. Student must obtain a city childcare license. (Pass/Fail.) PREREQ: Graduate Standing or PERM/INST. ED-ECS 516 and ED-ECS 507.

ED-ECS 600 ASSESSMENT [Comprehensive Examination](1-0-1)(Pass/Fail).

ED-SPED — EDUCATION — SPECIAL EDUCATION

ED-SPED 550 TEACHING SECONDARY STUDENTS WITH EXCEPTIONAL NEEDS (3-0-3)(F/S). Education of students with exceptional needs at the secondary level. Characteristics of students with disabilities, relevant legislation, assessment techniques, curricular adaptations and accommodations, and collaboration. PREREQ: Admission to Graduate Secondary Teacher Certification.

ED-SPED 551 COUNSELING AND COLLABORATION FOR EDUCATORS (3-0-3)(S/SU). Theories and approaches to counseling, collaboration, mentoring, and communication for special and general educators in working with colleagues and families.

ED-SPED 552 INSTRUCTIONAL STRATEGIES FOR SPECIAL EDUCATORS (3-0-3)(F/SU). Advanced professional knowledge and skills in developing and implementing programs for students with disabilities, including data analysis in programmatic decision-making.

ED-SPED 554 POSITIVE BEHAVIOR PROGRAMS (3-0-3)(F/SU). Current best practices in development and implementation of instructional and behavioral programs for students with challenging behaviors.

ED-SPED 555 ISSUES AND TRENDS IN SPECIAL EDUCATION (3-0-3)(S). Current issues and trends in the field of special education, targeting such areas as eligibility, assessment, parents, and service delivery options. Seminar format with student presentations.

ED-SPED 556 SEMINAR IN SEVERE DISABILITIES (3-0-3)(S)(Odd years). Advanced professional knowledge and skills relevant to providing services to individuals with severe disabilities, with special attention to contemporary issues and trends in the field.

ED-SPED 590 PRACTICUM/INTERNSHIP (1-3 Credits).

ED-SPED 591 PROJECT (1-6 Credits)(Pass/Fail).

ED-SPED 593 THESIS (1-6 Credits)(Pass/Fail).

ED-SPED 596 INDEPENDENT STUDY (1-3 Credits).

ED-SPED 600 ASSESSMENT [Comprehensive Examination] (1-3 Credits)(Pass/Fail).
Graduate Degrees Offered

- Doctor of Philosophy in Electrical and Computer Engineering
- Master of Science in Civil Engineering
- Master of Engineering in Civil Engineering
- Master of Science in Computer Engineering
- Master of Engineering in Computer Engineering
- Master of Science in Computer Science
- Master of Science in Electrical Engineering
- Master of Engineering in Electrical Engineering
- Master of Science in Hydrologic Sciences (See Interdisciplinary Programs)
- Master of Science in Instructional & Performance Technology
- Master of Science in Mechanical Engineering
- Master of Engineering in Mechanical Engineering
- Master of Science in Materials Science and Engineering (See Interdisciplinary Programs)
- Master of Engineering in Materials Science and Engineering (See Interdisciplinary Programs)
- Graduate Certificate in Human Performance Technology

General Information

There are six departments that grant graduate degrees in the College of Engineering at Boise State University: Civil Engineering, Computer Science, Electrical and Computer Engineering, Mechanical and Biomedical Engineering, Materials Science and Engineering, and Instructional & Performance Technology. These departments serve the mission of the College of Engineering by providing accessible, high-quality, nationally recognized programs of instruction, research, and service that prepare students for engineering and other high technology careers, and that support individuals and organizations in Idaho, the Northwest region, and the nation.

The graduate programs in the College of Engineering are offered in a variety of degree options and delivery methods to accommodate student interests and career needs. The Master of Science degrees in Civil Engineering, Computer Engineering, Electrical Engineering, Mechanical Engineering and Materials Science and Engineering, are thesis-based programs designed to prepare students for careers that involve a research component in their field. The thesis-based options often provide funding to students pursuing these options. The Master of Engineering degrees are non-thesis programs that may be satisfied by an approved selection of coursework and culminating activities. A number of graduate level courses are available in an online delivery format. The Master of Science in Computer Science offers both a thesis and a non-thesis option. The Master of Science in Instructional & Performance Technology has several different options that include thesis and non-thesis options, and is available in both the traditional on-campus mode of delivery as well as in an online delivery format which constitutes an entirely nonresident course of study.

The graduate faculty members in the College of Engineering are active in their academic and research fields, in their professional societies, and are dedicated to providing the highest quality instruction possible. The research facilities available to graduate students pursuing a degree include a variety of equipment housed in a number of different facilities such as the Biomaterials Research Laboratory, the Center for Materials Characterization, the Beowulf Computer Cluster Development Laboratory, the C-MEMS Laboratory, Environmental Sensor Development, the Biomechanics Research Laboratory, the Nanofabrication Laboratory, and more.
Department of Civil Engineering

Chair: Robert Hamilton
Engineering and Technology Building, Room 201, Mail Stop 2075
Telephone (208) 426-3764
FAX (208) 426-4800
http://coen.boisestate.edu/ce/msece.asp

Graduate Faculty: Arvin Farid, Molly Gribb, Robert Hamilton, David Haws, Mandar Khanal, Sondra Miller, Rebecca Mirsky, George Murgel, Venkataramana R. Sridhar

Graduate Degrees Offered

- Master of Science in Civil Engineering
- Master of Engineering in Civil Engineering
- Master of Science in Hydrologic Sciences
  (See Interdisciplinary Programs)

General Information

The Department of Civil Engineering offers two distinct graduate degree programs. The program leading to the Master of Science in Civil Engineering (M.S. CE) is a thesis-based program designed to prepare students for research and development and further study at the doctoral level. The program leading to the Master of Engineering in Civil Engineering (M.Engr. CE) is a non-thesis program with a focus on professional development.

Application and Admission Requirements

Admission Requirements

An applicant must satisfy the minimum admission requirements of the Graduate College. In addition, the applicant must hold a baccalaureate degree in civil engineering from an ABET-accredited program or a baccalaureate degree in a closely related field, and must follow the application procedures specified below. Admission is competitive and the achievement of minimum requirements does not guarantee admission.

Application Procedures

A prospective student may apply at any time and should follow the general graduate application procedure for degree-seeking students (see Applying as a Degree-Seeking Student in this catalog). The applicant must also 1) submit a statement of purpose to the graduate program coordinator of the Department of Civil Engineering, and 2) arrange to have GRE General Test scores submitted by the Educational Testing Service (www.ets.org) directly to Boise State University (code R4018). The statement of purpose should give the educational and professional background of the student and his or her motivation for graduate study including career goals. Applicants holding a baccalaureate degree from the College of Engineering of Boise State University are not required to submit GRE scores. International students must arrange to have three letters of recommendation submitted directly by the references to the Boise State University International Admissions Office. Once the applicant’s file is complete, it will be evaluated by the Civil Engineering Graduate Studies Committee and an admission recommendation (regular, provisional, or denial) will be forwarded to the Dean of the Graduate College. In order to ensure proper mentoring of all graduate students, a recommendation for regular or provisional admission will not be forwarded unless a faculty member of the Department of Civil Engineering is available to serve as the major advisor. The graduate dean will make the final admission decision and notify the applicant and the Civil Engineering Graduate Studies Committee.

Advisor and Supervisory Committee

The Civil Engineering Graduate Studies Committee will assign a supervisory committee (including a major advisor who serves as chair) for each admitted student. The role of the supervisory committee is to guide the student in all aspects of his or her graduate study.

Master of Science in Civil Engineering

Graduate Program Coordinator: George Murgel
Micron Engineering Center, Room 403D, Mail Stop 2075
Telephone (208) 426-3788
e-mail: gmurgel@boisestate.edu

Degree Requirements

Students must complete at least 31 graduate credits distributed as shown in the degree requirements table. A written thesis proposal and oral presentation to the supervisory committee is required prior to the completion of 15 credits applicable to the degree requirements. Work on the thesis can only be undertaken after approval of the thesis proposal by the supervisory committee. The thesis must constitute an original contribution to knowledge in civil engineering and must be successfully defended at a final oral examination. All work directly related to the thesis must be represented by at least 6 credits of CE 593.

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<td>Other Graduate Courses</td>
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<td>Thesis</td>
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</tbody>
</table>
Master of Engineering in Civil Engineering

Graduate Program Coordinator: George Murgel
Micron Engineering Center, Room 403D, Mail Stop 2075
Telephone (208) 426-3788
e-mail: gmurgel@boisestate.edu

Degree Requirements

Students must complete at least 31 graduate credits distributed as shown in the degree requirements table. A maximum of 3 credits of CE 696 Directed Research may be applied to meet the degree requirements. The comprehensive examination cannot be attempted prior to the last semester of the program. If the comprehensive examination is failed on the first attempt, then the student will be permitted a second attempt. Failure on the second attempt will result in dismissal from the program.

<table>
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<tr>
<th>Master of Engineering in Civil Engineering</th>
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Master of Science in Hydrologic Sciences

(See Section on Interdisciplinary Programs)

Special Rule on Transfer Credit The normal transfer credit policies of the Graduate College hold except that up to 15 transfer credits earned in combination at the University of Idaho and Idaho State University may be applied to either degree program (M.S. CE or M.Eng. CE) with the approval of the supervisory committee.

Course Offerings

Additional work will be required to receive graduate credit for undergraduate G courses.

CE—CIVIL ENGINEERING

CE 452G STRUCTURAL STEEL DESIGN (2-3-3)(F/S). Design of steel structures, such as beams and columns, in accordance with latest AISC Manual of Steel Construction, LRFD edition. PREREQ: CE 352.

CE 460G GEOTECHNICAL ENGINEERING DESIGN (3-0-3)(F/S). Subsoil exploration and site investigation methodologies. Soil mechanics in design of earth retaining structures, shallow and deep foundations, embankments, slopes, and excavations. PREREQ: CE 360 and CE 361.

CE 512 (GEOS 512) HYDROGEOLOGY (3-0-3)(F). The study of subsurface water and its relationship to surface water, the hydrologic cycle, and the physical properties of aquifer systems. Flow nets and flow through porous and fractured media. Methods of determination of aquifer characteristics and performance and groundwater modeling. May be taken for CE or GEOS credit, but not for both. PREREQ: MATH 175, junior standing.

CE 516 (GEOG 516)(GEOS 516) HYDROLOGY (3-0-3)(S). Interdisciplinary earth science concerned with movement and occurrence of water. Watershed-based hydrologic phenomena including hydrologic cycle, water-cycle analysis, precipitation, evapotranspiration, snow/snowmelt, streamflow, floods, routing and surface runoff events. Application of analytical techniques to solve water resource problems. May be taken for CE, GEOG or GEOS credit, but not in more than one department. PREREQ: MATH 175 or PERM/INST.

CE 520 ENVIRONMENTAL PROCESS CHEMISTRY (3-0-3)(S)(Even years). Chemical principles of water and wastewater treatment processes and reactions in receiving waters. Topics include chemical thermodynamics, reaction kinetics, acid-base equilibria, mineral precipitation/dissolution, and electrochemistry. PREREQ: CHEM 112 or PERM/INST.


CE 524 WATER TREATMENT PLANT SYSTEMS AND DESIGN (3-0-3) (S)(Odd years). Theoretical and practical engineering aspects of advanced chemical and physical phenomena and processes applicable to the design for removal of impurities from ground and surface water sources, including experimental problem analysis, conveyance systems and optimal treatment solution reporting. PREREQ: CE 320 or PERM/INST.

CE 525 WASTEWATER TREATMENT PLANT SYSTEMS AND DESIGN (3-0-3)(F)(Odd years). Theoretical and practical engineering aspects of advanced chemical, physical and biological phenomena and processes applicable to the design for removal of impurities from wastewater and industrial wastes and to their transformation in receiving waters, including experimental problem analysis, collection system conveyance and optimal treatment solution reporting. PREREQ: CE 320 or PERM/INST.

CE 526 (GEOS 526) AQUEOUS GEOCHEMISTRY (3-0-3)(F/S). Basic tools and topics of aqueous geochemistry with an emphasis on low temperature processes in natural waters. Essentials of thermodynamics, kinetics, aqueous speciation, mineral-water interaction, and elemental cycling in the context of surficial earth processes and environmental challenges. May be taken for CE or GEOS credit, but not both. PREREQ: CHEM 112.

CE 530 (GEOS 530) VADOSE ZONE HYDROLOGY (3-0-3)(F). Laboratory and field methods for characterizing physical and hydraulic properties of soils, solution of variably saturated flow problems using analytical and numerical techniques. Computer simulations of flow and transport in variably saturated soils. May be taken for CE or GEOS credit, but not for both. PREREQ: CE 320, GEOS 412, or GEOS 512 or PERM/INST.

CE 531 CONTAMINANT TRANSPORT (3-0-3)(F). The fate and transport of dissolved solutes and non-aqueous phase liquids in groundwater systems. Students will analyze field data and develop conceptual models for contaminated sites. The role of engineers and hydrologists in environmental litigation will be addressed through case studies. May be taken for CE or GEOS credit, but not for both. PREREQ: CE 412 or CE 512 or GEOS 412 or GEOS 512, or PERM/INST.


CE 538 WATER RESOURCES ENGINEERING (2-3-3)(F/S). Flood frequency analysis, reservoir characteristics and design, open channel flow applications, water project design, model studies, pump and turbine hydraulics and other water resources engineering topics. PREREQ: ENGR 330.

CE 540 CIVIL ENGINEERING DESIGN (3-0-3)(F). Pavement design processes, materials selection and characterization methods, design of flexible pavements, design of rigid concrete pavements, condition survey and ratings, distress evaluation, and maintenance and rehabilitation techniques. PREREQ: CE 340 and CE 370.

CE 551 STRUCTURAL DYNAMICS (3-0-3)(F/S). Examines free vibration and response to harmonic and general dynamic loading of the single degree of freedom system, Fourier analysis and response in the frequency domain.
response spectra, framed structures modeled as discrete multi-degree-of-freedom systems, dynamic analysis of nonlinear systems. Response of structural systems to earthquake excitation. PREREQ: ME 472.

CE 554 TIMBER DESIGN (3-0-3)(F/S). Design of wood, and wood composite, structures and systems based on mechanical and structural characteristics and specifications. PREREQ: CE 352.

CE 555 STRUCTURES II (3-0-3)(S)(Odd years). Analysis and design of structural systems. Stiffness method including the development of element properties, coordinate transformations, and global analysis theory. Three-dimensional building systems and an introduction to the Finite Element Method. PREREQ: CE 352.

CE 556 MASONRY DESIGN (3-0-3)(F/S). Design of masonry structures and systems based on mechanical and structural characteristics and specifications. PREREQ: CE 352.


CE 564 SEEPAGE, DRAINAGE, FLOW NETS AND EMBANKMENTS (3-0-3)(F/S). Emphasis on the applied aspects of groundwater flow and seepage through porous media from a theoretical point of view; examination and development of governing field equations; flow net construction, modeling techniques, filter design, construction dewatering; simplified design of small earthfill dams and slope stability of embankments. PREREQ: CE 360, CE 370.

CE 570 HIGHWAY AND TRAFFIC SYSTEMS DESIGN (2-3-3)(F/S). Planning, design, and operations of urban and rural highway systems. PREREQ: CE 360 and CE 370.

CE 572 TRANSPORTATION PLANNING (3-0-3)(S)(Odd years). Theory and practice of transportation planning at the metropolitan as well as regional levels. Use of software and completion of a project will be required. Recent advances in transportation planning will be introduced. PREREQ: CE 370 or PERM/INST.

CE 575 TRAFFIC ENGINEERING (3-0-3)(F)(Odd years). Covers the theory and practice of traffic operations, control, and management. Topics include traffic signal systems, isolated and area-wide signal system operations, and traffic simulation. Use of software and completion of a project will be required. PREREQ: CE 370 or PERM/INST.

CE 623 (GEOPH 623) GEOS 623 ADVANCED HYDROGEOLOGY (3-0-3)(F). Treatment of groundwater occurrence and flow, theory, fundamental mechanisms, hydrologic parameters, flow regimes and systems, geologic controls. May be taken for credit in GEOS, GEOPH, or CE, but not for more than one department. PREREQ: MATH 275, MATH 333, and GEOS 412 or GEOS 512 or CE 412 or CE 512 or PERM/INST.

CE 624 (GEOPH 624) GEOS 624 APPLIED HYDROGEOLOGY (3-0-3)(S). Quantitative determination of hydrologic parameter values and groundwater flow conditions. Conceptual models and geologic context, boundary condition, analytical and numerical solution techniques, measurement methods, applications to engineering and environmental problems. May be taken for credit in CE, GEOPH, or GEOS, but not for more than one department. PREREQ: CE 623 or GEOPH 623 or GEOS 623 or PERM/INST.

ENGR—ENGINEERING SCIENCE
ENGR 500 RESEARCH METHODS (1-0-1)(F/S). Topics include defining a thesis or other research project, library and internet searching techniques, completing a literature review, preparing a research or project plan, research methods, preparing the thesis proposal, preparing the final thesis or research project document, and preparing a successful oral presentation.
• Take the GRE General test and arrange for the scores to be sent to the Graduate Admission and Degree Services.

• If you do not have a degree in Computer Science from a college or university with an ABET accredited program in Computer Science, you may take the GRE Computer Science Subject test to strengthen your application. The scores should be sent to the Graduate Admission and Degree Services.

• Arrange for three letters of reference that address your preparation for graduate study in computer science to be sent directly to the Computer Science Graduate Committee in the Department of Computer Science.

Regular and Provisional Status  Completed applications will be reviewed by the Computer Science Graduate Committee.

• Applicants who meet the stated requirements and whose computer science background is deemed sufficient will be admitted to the program with Regular status.

• Applicants whose computer science background is deemed deficient may be granted admission with Provisional status. In this case the applicant will be required to pass specific undergraduate computer science courses in order to remove the deficiency and be granted Regular admission status.

• Unless otherwise specified, all deficiencies must be removed within two years of Provisional admission to the program. Time spent in Provisional status counts toward the limit of five years (or up to seven years if an extension is granted) allowed for completion of the degree.

Degree Requirements
The degree requirements described below allow the students a fair amount of flexibility in designing a program to fit his or her needs. The course work is to be chosen by the student, in consultation with his/her advisor and the Computer Science Graduate Committee. The Master of Science in Computer Science requires a minimum of 30 credit hours, as specified in the table below. In addition, the student’s advisor and the Computer Science Graduate Committee must approve the student’s proposed degree plan to ensure that it meets these criteria and forms a coherent program of study. All requirements for the degree must be completed within five years of initial enrollment in the program, unless the Computer Science Graduate Committee grants an explicit extension of time. In no event will more than seven years be allowed for completion of the degree.

<table>
<thead>
<tr>
<th>Course Offerings</th>
<th>COMPSCI—COMPUTER SCIENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPSCI 510 DATABASES (3-0-3)(S)</td>
<td>Foundations of database management systems. Database models: relational, object and other models. Database design: entity-relationship modeling, logical relational schema design, physical design, functional dependencies and normalization, and database tuning. Database application development using database interfaces embedded in host languages. PREREQ: COMPSCI 342 or PERM/INST.</td>
</tr>
<tr>
<td>COMPSCI 512 ADVANCED TOPICS IN DATABASES (3-0-3)(F/S)</td>
<td>Parallel and distributed database system architectures, distributed database design, client/server database systems. Selected topics from new developments in: extended relational databases, multimedia databases, information retrieval systems, object-oriented databases, temporal databases. PREREQ: COMPSCI 410 or COMPSCI 510 or PERM/INST.</td>
</tr>
<tr>
<td>COMPSCI 521 DESIGN AND ANALYSIS OF ALGORITHMS (3-0-3)(F/S)</td>
<td>Design techniques such as amortized analysis, dynamic programming, and greedy algorithms. Computational geometry, graph algorithms, primality and other number-theoretic algorithms, specialized data structure techniques such as augmenting data structures, combinatorial graph reduction and functional repetition. NP completeness and approximation algorithms. PREREQ: COMPSCI 342 or PERM/INST.</td>
</tr>
<tr>
<td>COMPSCI 525 COMPUTER NETWORKS (3-0-3)(F/S)</td>
<td>OSI reference model. Performance analysis of protocols—mathematical modeling and simulation. Quality of Service, flow control, and scheduling. MAC and routing in wireless networks. PREREQ: COMPSCI 425 and MATH 361 or PERM/INST.</td>
</tr>
<tr>
<td>COMPSCI 530 PARALLEL COMPUTING (3-0-3)(F)</td>
<td>Models of parallel computation. Fundamental design patterns used in parallel algorithms: embarrassingly parallel, partitioning, divide and conquer, software pipelining, synchronous computations and load balancing. Implementation on parallel clusters. Hardware and systems software design of parallel systems. PREREQ: COMPSCI 253 and COMPSCI 342 or PERM/INST.</td>
</tr>
<tr>
<td>COMPSCI 531 ADVANCED PROGRAMMING LANGUAGES (3-0-3)(F/S)</td>
<td>Advanced topics in programming language theory, design, and implementation. Topics include: data types; binding, scope, and extent; abstraction, extensibility, and control mechanisms; formal semantics and program verification. Emphasis on alternative programming-language paradigms. PREREQ: COMPSCI 354 or PERM/INST.</td>
</tr>
<tr>
<td>COMPSCI 541 (ECE 532) COMPUTER ARCHITECTURE (3-0-3)(S)</td>
<td>Structure of computer systems using processors, memories, input/output (I/O) devices as building blocks. Computer system instruction set design and implementation, including memory hierarchies, microprogramming, pipelining and multiprocessors. Issues and tradeoffs involved in the design of computer system architectures with respect to the design of instruction sets. Applications of hardware description languages (HDL) in the design of computer systems. May be taken for COMPSCI or ECE credit, but not both. PREREQ: COMPSCI 117 or COMPSCI 125 and ECE 332 or PERM/INST.</td>
</tr>
<tr>
<td>COMPSCI 542 QUANTITATIVE COMPUTER ARCHITECTURE (3-0-3)(S)</td>
<td>Quantitative analysis on computer architectures and software optimizations with static and dynamic simulation techniques. Design implications of memory latency and bandwidth limitations. Performance enhancement via within-processor and between-processor parallelism. In particular, the study of pipelining, instruction-level parallelism, memory hierarchy design, storage systems, and multiprocessors are emphasized. PREREQ: COMPSCI 441 or PERM/INST.</td>
</tr>
<tr>
<td>COMPSCI 546 COMPUTER SECURITY (3-0-3)(F/S)</td>
<td>Computer and network security. Public-key and private-key cryptography, authentication, digital signatures, key exchange, key management, certification authorities, and distributed trust models. File system security, Mail system security, and Web security. Intruders, Trojan Horses, and viruses. Covert channels. Projects will involve using currently available security tools. PREREQ: COMPSCI 453 or PERM/INST.</td>
</tr>
</tbody>
</table>

### Master of Science in Computer Science

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Graduate Courses related to Computer Science</strong></td>
<td>21-27</td>
</tr>
<tr>
<td>Graduate courses in computer science or a related field; all courses to be selected with student input and approved by the supervisory committee.</td>
<td></td>
</tr>
<tr>
<td><strong>One of the following culminating activities</strong></td>
<td>3-9</td>
</tr>
<tr>
<td>Thesis or Project Option</td>
<td></td>
</tr>
<tr>
<td>COMPSCI 591 Project ................................................. 3-6</td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>COMPSCI 593 Thesis ................................................. 6-9</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>30</strong></td>
</tr>
</tbody>
</table>
COMPSCI 550 PROGRAMMING LANGUAGE TRANSLATION (4-0-4)(S). Theory and practice of formal language translation, experience with compiler construction tools under UNIX. Students work on significant projects. PREREQ: COMPSCI 253 and COMPSCI 342 and COMPSCI 354 or PERM/INST.

COMPSCI 551 ADVANCED TOPICS IN COMPILATION (3-0-3)(F/S). Code generation, analysis, and optimization. Projects will use a simple framework for performing analysis and optimizations at the assembly level. PREREQ: COMPSCI 450 or COMPSCI 550.

COMPSCI 552 OPERATING SYSTEMS (4-0-4)(F). Process management, concurrency, interprocess communication, synchronization, scheduling, memory management, file systems and security. Case studies of multiple operating systems. PREREQ: COMPSCI 253 and COMPSCI 342 and ECE 332 or PERM/INST.

COMPSCI 554 ADVANCED OPERATING SYSTEMS (3-0-3)(S). In-depth exploration of the various components of an actual operating system. Includes modifying operating system code to observe behavior, adding new functionality, understanding how various parts work as well as other experiments. Special emphasis on soft and hard real-time operating systems. PREREQ: COMPSCI 453 or COMPSCI 552 or PERM/INST.

COMPSCI 555 DISTRIBUTED SYSTEMS (3-0-3)(S). Principles and paradigms of distributed systems. Communication, processes, naming, synchronization, consistency and replication, fault tolerance and security. In-depth coverage of Remote Procedure Call (RPC), Remote Method Invocation (RMI) and socket programming. Survey of major distributed systems. Several software projects. PREREQ: COMPSCI 453 or COMPSCI 552 or PERM/INST.

COMPSCI 557 ARTIFICIAL INTELLIGENCE (3-0-3)(F/S). Course will include a survey of some of the following topics, plus a project: Principles of knowledge-based search techniques; automatic deduction; knowledge representation using predicate logic; semantic networks, connectionist networks, frames, rules; applications in problem solving, expert systems, game playing, vision, natural language understanding, learning, robotics; LISP programming. PREREQ: COMPSCI 342 and COMPSCI 354 or PERM/INST.

COMPSCI 561 INTRODUCTION TO THE THEORY OF COMPUTATION (3-0-3)(F). Grammars, automata, Turing machines, decidability and complexity, language hierarchies, normal forms, NP-completeness, and reducibilities. Applications will be drawn from various areas of computer science. PREREQ: COMPSCI 342 or PERM/INST.

COMPSCI 562 COMPLEXITY THEORY (3-0-3)(S). Abstract machines, relativizations, upper and lower bounds on complexity, recursive hierarchies and alternation, time-space interaction, parallel and randomized complexity classes, approximation algorithms. PREREQ: COMPSCI 461 or COMPSCI 561.

COMPSCI 564 COMPUTER GRAPHICS I (3-0-3)(F). The mathematics and programming techniques for computer graphics emphasizing raster graphics, rasterization algorithms, and scanline rendering. Two- and three-dimensional transformations, homogeneous coordinates, projections; clipping, hidden-surface removal. PREREQ: COMPSCI 342 and MATH 301; MATH 275 recommended.


COMPSCI 567 CRYPTOLOGY I (4-0-4)(F). Introduction to modular arithmetic. The study of: the RSA, ElGamal, Diffie-Hellman, and Blum-Blum-Shub public key cryptosystems, authentication and digital signatures, anonymity protocols. Protocol failures for these systems. Crosslisted with MATH 307 and COMPSCI 367; credit may be received for only one of these three courses. PREREQ: MATH 170, MATH 171, and MATH 187.

COMPSCI 568 CRYPTOLOGY II (4-0-4)(S). Introduction to groups, fields, polynomial rings and Lucas numbers. The study of: the Elliptic Curve, LUC, and NTRU public key cryptosystems, authentication and digital signatures, anonymity protocols. Crosslisted with MATH 308 and COMPSCI 368; credit may be received for only one of these three courses. PREREQ: MATH 170, MATH 171, and MATH 187.

COMPSCI 571 SOFTWARE ENGINEERING (3-0-3)(F). A formal study of the software development process. Topics include: lifecycle models, requirements definition, specification, design, implementation, validation, verification, maintenance, and reuse. Students work in small teams on significant projects. PREREQ: COMPSCI 342 or PERM/INST.

COMPSCI 572 OBJECT-ORIENTED DESIGN PATTERNS (3-0-3)(S). Reviews object-oriented design principles, explains the goals and form of design patterns, and examines several well-known patterns. PREREQ: COMPSCI 342 or PERM/INST.

COMPSCI 573 ADVANCED SOFTWARE ENGINEERING (3-0-3)(S). A study of selected aspects of contemporary software development methodology. Topics are taken from recent research articles. These topics include: definition of user requirements, formal specification of solutions, design and implementation techniques, validation and testing, verification, maintenance, and reuse. PREREQ: COMPSCI 471 or PERM/INST.

SELECTED TOPICS (Variable credit). In depth study of current trends and advanced topics in targeted areas of computer science.

COMPSCI 580 PARALLEL COMPUTING
COMPSCI 581 ALGORITHMS
COMPSCI 583 COMPUTER SECURITY
COMPSCI 584 NETWORKS
COMPSCI 585 OBJECT-ORIENTED DESIGN
COMPSCI 586 DATABASES
COMPSCI 587 SOFTWARE ENGINEERING
COMPSCI 591 PROJECT (Variable credit).
COMPSCI 593 THESIS (Variable credit).
COMPSCI 600 ASSESSMENT [Comprehensive Examination] (1 Credit)(Pass/Fail).
Department of Electrical and Computer Engineering

Chair: Thad B. Welch
Engineering Technology Building, Room 240A, Mail Stop 2075
Telephone (208) 426-2212
FAX (208) 426-2470
e-mail: thadwelch@boisestate.edu

Graduate Faculty: Said Ahmed-Zaid, R. Jacob Baker, Elisa H. Barney Smith, Jim Browning, Kris Campbell, John Chiasson, William Knowlton, Wan Kiang, Sin Ming Loo, Maria Milkova, Nader Rafii, Cheryl B. Schrader, Jennifer A. Smith, Thad Welch

Adjunct Graduate Faculty: Peter Tay

Graduate Degrees Offered

- Doctor of Philosophy in Electrical and Computer Engineering
- Master of Science in Computer Engineering
- Master of Engineering in Computer Engineering
- Master of Science in Electrical Engineering
- Master of Engineering in Electrical Engineering

Doctor of Philosophy in Electrical and Computer Engineering

Doctoral Program Coordinator: John Chiasson
Micron Engineering Center, Room 202K, Mail Stop 2075
Telephone (208) 426-4054
FAX (208) 426-2470
http://coen.boisestate.edu/ece/home.asp
e-mail: johnchiasson@boisestate.edu

General Information

Boise State University offers a Doctor of Philosophy in Electrical and Computer Engineering through the Department of Electrical and Computer Engineering (ECE). The degree requires the completion of a prescribed course of study in ECE, satisfactory performance on the comprehensive examination and dissertation proposal, and independent completion of original research that results in a publicly defended dissertation that contributes significantly to ECE knowledge. Please refer to the “Regulations for the Doctor of Philosophy Programs” in the front section of the catalog.

Graduate Teaching and Research Fellowships

Graduate fellowships including tuition and fee waivers are funded from three sources: appropriated state funds, endowments, and research grants and contracts. Applicants to the Ph.D. in ECE program who submit all documents required by the admission procedure by February 1 of any given year will be considered for a state appropriated or endowed graduate fellowship to start the following fall semester; notification of successful applicants will occur in February and March. Information on graduate fellowships funded by research grants and contracts is available from the Coordinator of the ECE doctoral program.

Doctoral Program Committee

The Doctoral Program Committee in ECE consists of the ECE Doctoral Program Coordinator, the program coordinators for the electrical engineering and computer engineering Master’s programs, and the associate chair of the department. The duties of the Doctoral Program Committee include development of recommendations for admission of prospective graduate students, decision on transfer credits and required background courses, appointment of Supervisory Committees for graduate students, and administration of the comprehensive examination.

Supervisory Committee

The Supervisory Committee is charged with general guidance of the doctoral student, including design and approval of the program of study, administration of the oral dissertation proposal, supervision of the dissertation research, and participation in dissertation defense. The Supervisory Committee consists of a principal advisor from the student’s chosen area of major emphasis who acts as chair, one member from the student’s chosen area of minor emphasis, and at least two additional members, all of whom must be members of the University regular or research faculty and must also be members of the Graduate Faculty. One or more additional members may be appointed when such appointments enhance the function of the Committee. In all cases, regular or research faculty members of the Department of Electrical and Computer Engineering must constitute a majority of the Supervisory Committee.

Application and Admission Requirements

Admission Requirements

An applicant must satisfy the minimum admission requirements for the Graduate College. Applicants are required to have a Bachelor’s or Master’s degree in electrical engineering or computer engineering from an ABET-accredited program or a baccalaureate or Master’s degree in a closely related field from an accredited college or university; and must follow the application procedures specified below. Admission is competitive and the achievement of minimum requirements does not guarantee admission into the program.

Application Procedures

A prospective student may apply at any time and should follow the general graduate application procedure for degree-seeking students (see Applying as a Degree-Seeking student in this catalog). Applications received by February 1 will received full consideration for departmental Fellowships and Teaching Assistantships. Admission to the program will be based on: 1) transcripts, 2) professional references, preferably three, 3) scores on the general test of the Graduate Record Examination (GRE), and 4) a two-page statement of teaching and research interests. Students whose native language is not English must submit a TOEFL score of 587 or higher for the written examination or 95 Internet-based (iBT) examination. Test scores must be submitted directly to Boise State University (code R4018). Once the applicant’s file is complete, it will be evaluated by the ECE Doctoral Program Committee and an admission recommendation (regular, provisional, or denial) will be forwarded to the Dean of the Graduate College. In order to ensure proper mentoring of all graduate students, a recommendation for admission will not be forwarded unless a faculty member in ECE is available to serve as the major advisor. The graduate dean will make the final admission decision and notify the applicant and the ECE Doctoral Program Committee.
Degree Requirements

The program of study for the Doctor of Philosophy (Ph.D.) in Electrical and Computer Engineering will require at least 72 credits beyond the Bachelor’s Degree or 48 credits beyond a Master’s Degree, and adhere to all policies and procedures of the Graduate College. Courses applied to meet the 72-credit minimum requirement must be taken for a letter grade (A-F), except for ECE 600 Assessment which is graded P (Pass) or F (Fail), and ECE 693 Dissertation which is initially graded IP (In Progress) and later graded P or F depending on the outcome of the dissertation defense. Credit for coursework must be distributed as shown in the degree requirements table. For those entering the program with a Master’s Degree, no more than 24 credits of previous graduate coursework can be applied as course credit. For a student entering with a Bachelor’s degree, a maximum of 9 credits of post graduate coursework can be applied towards the Ph.D. program. All programs of study must be approved by the student’s Supervisory Committee.

Doctor of Philosophy in Electrical and Computer Engineering

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Core Sequence</strong></td>
<td></td>
</tr>
<tr>
<td>ENGR 500 Research Methods</td>
<td>10</td>
</tr>
<tr>
<td><strong>At least 3 courses from the following</strong></td>
<td></td>
</tr>
<tr>
<td>ECE 500 Applied Electromagnetics</td>
<td>3</td>
</tr>
<tr>
<td>ECE 510 Integrated Circuit Physical Design</td>
<td>3</td>
</tr>
<tr>
<td>ECE 520 Advanced Device Design and Simulation</td>
<td>3</td>
</tr>
<tr>
<td>ECE 530 Digital Hardware Design</td>
<td>3</td>
</tr>
<tr>
<td>ECE 550 Stochastic Signals and Systems</td>
<td>3</td>
</tr>
<tr>
<td>ECE 560 Linear Systems</td>
<td>3</td>
</tr>
<tr>
<td><strong>Major Area of Concentration</strong></td>
<td>15</td>
</tr>
<tr>
<td><strong>Emphasis (Minor) Area</strong></td>
<td>9</td>
</tr>
<tr>
<td><strong>Electives (with supervisory committee approval)</strong></td>
<td>12</td>
</tr>
<tr>
<td><strong>Comprehensive Examination</strong></td>
<td>26</td>
</tr>
<tr>
<td>ECE 600 Assessment [Ph.D. Comprehensive Examination] (P/F)</td>
<td>1</td>
</tr>
<tr>
<td><strong>Dissertation Proposal</strong></td>
<td></td>
</tr>
<tr>
<td>ECE 600 Assessment [Ph.D. Dissertation Proposal] (P/F)</td>
<td>1</td>
</tr>
<tr>
<td><strong>Culminating Activity</strong></td>
<td></td>
</tr>
<tr>
<td>ECE 693 Dissertation (P/F)</td>
<td>24</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>72</td>
</tr>
</tbody>
</table>

Areas of Concentration and Emphasis

15 credits of coursework are required in a Major Area of Concentration. This is to be 5xx and 6xx courses beyond the core sequence from one area chosen from the three ECE Areas: Computer Engineering, Circuits and Devices, or Signals and Systems. An additional 9 credits of coursework is required beyond the core sequence in an Emphasis or Minor Area also at the 5xx or 6xx level. This should be in one of the two remaining ECE Areas. The Areas are defined as follows: Computer Engineering (all ECE courses with a middle digit of 3), Circuits and Devices (all ECE courses with a middle digit of 1, 2, 4 or 8), and Signals and Systems (all ECE courses with a middle digit of 5, 6 or 7). Of these 24 credits, 12 must be at the 600-level.

Ph.D. Examinations and Dissertation Requirements

Students admitted to the Ph.D. program will be required to pass a comprehensive exam and an oral dissertation proposal. As a culminating activity, the student will be required to present and successfully defend, a doctoral research dissertation presenting significant research augmenting existing knowledge in the field of electrical and computer engineering.

Comprehensive Examination

The comprehensive examination is given yearly in January. Generally, students entering the program with a Bachelor’s degree take the comprehensive examination after the third semester of study. Students entering with a Master’s degree take the written comprehensive examination, generally, the first time it is offered after their admission. This examination will test depth and breadth of knowledge over 3 of the 6 core courses: 500 (electromagnetics), ECE 510 (circuits), 520 (devices), 530 (digital), and 550 (communications), 560 (systems). The results of the comprehensive examination can lead to three possible outcomes: 1) pass, 2) pass after completion of background coursework with grades of A or B to resolve deficiencies (note that this coursework will not count towards the Ph.D. degree credits required for graduation), or 3) failure. If the student fails the comprehensive examination they may take it again the following year. Failure a second time will result in administrative withdrawal from the doctoral program.

Dissertation Proposal

The oral dissertation proposal is designed to assess the suitability of a Ph.D. student for research in a specific area and will focus on advanced coursework and research in the student’s dissertation area. Satisfactory completion is required for the student to become a Ph.D. candidate. The dissertation proposal should be presented before, or at the beginning of, the student’s Ph.D. research and within one year of satisfactory completion of the comprehensive examination. To initiate the dissertation proposal, the student must submit a research proposal for their doctoral dissertation to their Supervisory Committee. After the Supervisory Committee reviews the proposal they can give their approval to proceed with scheduling the oral dissertation presentation or they can ask the student to make changes to the proposal and to resubmit it. The oral dissertation presentation consists of the student presenting their proposed doctoral research and answering questions about the proposal, related background material and the material covered in all courses listed in their program of study. If a student fails the oral presentation, they may be allowed to resubmit the dissertation proposal once with the approval of the Supervisory Committee. Students who fail a second time or do not receive approval to resubmit the proposal will be administratively withdrawn from the program.

Dissertation Requirements

The dissertation must be the result of independent and original research by the student and must constitute a significant contribution to electrical and computer engineering knowledge equivalent to multiple peer-reviewed publications. The style and format of the dissertation are to conform to the standards of the Department of Electrical and Computer Engineering and the Graduate College.
Final Oral Examination

A public defense of the dissertation is scheduled after the Supervisory Committee has reviewed a draft that is considered to be nearly a final version. The date of the defense is determined jointly by the Supervisory Committee and the student and must be consistent with any guidelines provided by the Graduate College. A Defense Committee is formed that consists of the following voting members: an appointed chair, the chair and members of the Supervisory Committee, and an external examiner. The chair of the Defense Committee is appointed by the Dean of the Graduate College and must be a member of the Graduate Faculty, but must not be the chair or a member of the Supervisory Committee. The external examiner is a faculty member from another university who is a recognized expert in the field of the dissertation research and is appointed to the Defense Committee by the Dean of the Graduate College. Attendance at the defense by the external examiner is not required, but a written evaluation of the dissertation and a pass or fail vote must be submitted by the external examiner to the chair of the Defense Committee at least 3 weeks prior to the defense. The written evaluation provided by the external examiner is distributed to the other members of the Defense Committee at least 2 weeks before the defense. The chair of the Defense Committee conducts the defense according to the procedure established by the Doctoral Program Committee. A student who fails the defense may be permitted to try again, but failure a second time will result in dismissal from the program.

Final Approval of the Dissertation

If the defense is completed with a result of pass, the Supervisory Committee prepares a statement describing final requirements such as additions or modifications to the dissertation and any additional requirements such as archival of data. When these requirements have been met to the satisfaction of the Supervisory Committee, the approval page of the dissertation is signed by the members of the Committee.

Graduate College Requirements

The general requirements of the BSU Graduate College also govern the Doctor of Philosophy in Electrical and Computer Engineering degree program.

Master of Science/Master of Engineering

General Information

The Department of Electrical and Computer Engineering offers four distinct engineering graduate degree programs. Two programs leading to the Master of Science in Computer Engineering (M.S. COMPE) and Master of Science in Electrical Engineering (M.S. EE) are thesis-based programs designed to prepare students for research and development and further study at the doctoral level. The programs leading to the Master of Engineering in Computer Engineering (M.Engr. COMPE) and Master of Engineering in Electrical Engineering (M.Engr. EE) are non-thesis programs with a focus on professional development.

Application and Admission Requirements

Admission Requirements

An applicant must satisfy the minimum admission requirements of the Graduate College. In addition, the applicant must hold a baccalaureate degree in computer or electrical engineering from an ABET-accredited program or a baccalaureate degree in a closely related field, and must follow the application procedures specified below. Admission is competitive and the achievement of minimum requirements does not guarantee admission.

Application Procedures

A prospective student may apply at any time and should follow the general graduate application procedure for degree-seeking students (see Applying as a Degree-Seeking Student in this catalog). The applicant must also arrange to have GRE General Test scores submitted by the Educational Testing Service (www.ets.org) directly to Boise State University (code R4038). Applicants holding a baccalaureate degree from the College of Engineering of Boise State University are not required to submit GRE scores. International applicants must submit a statement of purpose to the graduate program coordinator and arrange for three letters of recommendation to be submitted directly by the references to the Boise State University International Admissions Office. The statement of purpose should give the educational and professional background of the student and his or her motivation for graduate study including career goals. Once the applicant’s file is complete, it will be evaluated by the Graduate Studies Committee and an admission recommendation (regular, provisional, or denial) will be forwarded to the Dean of the Graduate College. In order to ensure proper mentoring of all graduate students, a recommendation for regular or provisional admission will not be forwarded unless a faculty member of the Department of Electrical and Computer Engineering is available to serve as the major advisor. The graduate dean will make the final admission decision and notify the applicant and the Graduate Studies Committee.

Advisor and Supervisory Committee

For a student admitted to the M.S. in Computer Engineering or the M.S. in Electrical Engineering program, the Graduate Studies Committee will initiate the assignment of a supervisory committee including a major advisor who serves as chair. The role of the supervisory committee is to guide the student in all aspects of his or her graduate study. For a student admitted to the M.Engr. in Computer Engineering or the M.Engr. in Electrical Engineering, the Graduate Studies Committee will appoint a major advisor; student mentoring will be provided by the major advisor and the chair of the department.

Special Rule on Transfer Credit

The normal transfer credit policies of the Graduate College hold except that up to 15 transfer credits earned in combination at the University of Idaho and Idaho State University may be applied to either degree program (M.S.COMPE, M.S. EE, M.Engr. COMPE, or M.Engr. EE) with the approval of the supervisory committee.
Master of Science in Computer Engineering

Graduate Program Coordinator: Jennifer A. Smith
Micron Engineering Center, Room 202L, Mail Stop 2075
Telephone (208) 426-5743
e-mail: jasmith@boisestate.edu

Degree Requirements
Students must complete at least 30 graduate credits distributed as shown in the degree requirements table. A written thesis proposal with oral presentation to the supervisory committee is required prior to the completion of 15 credits applicable to the degree requirements. Work on the thesis can only be undertaken after approval of the thesis proposal by the supervisory committee. The thesis must constitute an original contribution to knowledge in computer engineering and must be successfully defended at a final oral examination. All work directly related to the thesis must be represented by at least 6 credits of ECE 593.

<table>
<thead>
<tr>
<th>Master of Science in Computer Engineering</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Graduate Courses Related to Computer Engineering</td>
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<tr>
<td>Other Graduate Courses</td>
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</tbody>
</table>

Master of Engineering in Computer Engineering

Graduate Program Coordinator: R. Jacob Baker
Micron Engineering Center, Room 108, Mail Stop 2075
Telephone (208) 426-5715
e-mail: jbaker@boisestate.edu

Degree Requirements
Students must complete at least 31 graduate credits distributed as shown in the degree requirements table. A maximum of 3 credits of ECE 696 Directed Research may be applied to meet the degree requirements. The comprehensive examination cannot be attempted prior to the last semester of the program. If the comprehensive examination is failed on the first attempt, then the student will be permitted a second attempt. Failure on the second attempt will result in dismissal from the program.

<table>
<thead>
<tr>
<th>Master of Engineering in Computer Engineering</th>
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<tr>
<td>Graduate Courses Related to Computer Engineering</td>
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</table>

Master of Science in Electrical Engineering

Graduate Program Coordinator: Jennifer A. Smith
Micron Engineering Center, Room 202L, Mail Stop 2075
Telephone (208) 426-5743
e-mail: jasmith@boisestate.edu

Degree Requirements
Students must complete at least 30 graduate credits distributed as shown in the degree requirements table. A written thesis proposal with oral presentation to the supervisory committee is required prior to the completion of 15 credits applicable to the degree requirements. Work on the thesis can only be undertaken after approval of the thesis proposal by the supervisory committee. The thesis must constitute an original contribution to knowledge in electrical engineering and must be successfully defended at a final oral examination. All work directly related to the thesis must be represented by at least 6 credits of ECE 593.

<table>
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</table>
Master of Engineering in Electrical Engineering

Graduate Program Coordinator: R. Jacob Baker
Micron Engineering Center, Room 108, Mail Stop 2075
Telephone (208) 426-5715
e-mail: j baker@boisestate.edu

Degree Requirements

Students must complete at least 31 graduate credits as shown in the degree requirements table. A maximum of 3 credits of ECE 696 Directed Research may be applied to meet the degree requirements. The comprehensive examination cannot be attempted prior to the last semester of the program. If the comprehensive examination is failed on the first attempt, then the student will be permitted a second attempt. Failure on the second attempt will result in dismissal from the program.

Graduate Program Coordinator:
R. Jacob Baker
Graduate Program Office
Micron Engineering Center, Room 108, Mail Stop 2075
Graduate Program Coordinator: R. Jacob Baker
Micron Engineering Center, Room 108, Mail Stop 2075
Telephone (208) 426-5715
e-mail: j baker@boisestate.edu

Electrical Engineering

Master of Engineering in Electrical Engineering

<table>
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Course Offerings

ECE—ELECTRICAL AND COMPUTER ENGINEERING

ECE 500 APPLIED ELECTROMAGNETICS (3-0-3)(S). An applied study of electromagnetic theory and its applications to wave propagation in bounded structures, scattering and diffraction, antenna theory, S-parameters, and microwave engineering. PREREQ: ECE 390 or PHYS 382.

ECE 501 PLASMA ENGINEERING (3-0-3)(F)(Odd years). An introduction to plasma principles and the use of plasmas in semiconductor processing. The course provides an introduction to the basic concepts of the Debye length, plasma sheaths, and the properties of waves in plasmas. The principles involved in the chemistry and the physical aspects of plasma discharges are covered related to etch, deposition, and ion implantation. PREREQ: MATH 275, MATH 333 or MATH 433, and PHYS 212.

ECE 510 INTEGRATED CIRCUIT PHYSICAL DESIGN (3-0-3)(F/S). CMOS IC layout, modeling, parasitic capacitance extraction, SPICE simulation. Design of logic gates, counters, registers, memories, and photomasks. PREREQ: ECE 322.


ECE 513 RF IC DESIGN (3-0-3)(F/S). Design and characterization of RF-CMOS integrated circuits, including RF transceivers, oscillators, design approaches for handheld wireless systems, ultra-low-power circuit design techniques, on-wafer microwave measurement techniques. S parameter device evaluation methods, low-noise design and measurement, analysis of distortion in amplifiers, power amplifiers with application to wireless transmitter design, transmission lines and distributed circuit elements. PREREQ: ECE 410 or ECE 411.

ECE 518 MEMORY CIRCUIT DESIGN (3-0-3)(F/S)(Alternate years). Transistor level design of memory circuits. Memory technologies including DRAM, Flash, MRAM, Glass-based, and SRAM will be discussed. The course will be a practical introduction to the design of memory circuits. PREREQ: ECE 410/510.

ECE 520 ADVANCED DEVICE DESIGN AND SIMULATION (3-0-3)(F/S). MOSFET device physics, scaling rules, analytical short channel models, hot-electron effects/modeling, LDD design, gate oxide breakdown and reliability. TDDB, GIDL, channel mobility, electromigration, BSIM3 device modeling, 2-D TCAD device simulation. PREREQ: ECE 323.

ECE 520L ADVANCED DEVICE CHARACTERIZATION LAB (0-3-1)(F/S). Advanced measurement and parameter extraction techniques for MOSFETs. High frequency CV, Quasistatic CV, Charge-Pumping measurements, PREREQ: ECE 323.

ECE 521 ADVANCED TOPICS IN SEMICONDUCTOR DEVICES (3-0-3)(F/S). Study of advanced semiconductor devices, particularly photonic, microwave, power, and high temperature/radiation resistant devices, including physics and applications. TCAD simulation and modeling of these devices will be included. PREREQ: ECE 420/520.

ECE 522 MICROWAVE SEMICONDUCTOR DEVICES (3-0-3)(F/S). Covers the various aspects of design, fabrication, and characterization of ultra-low-power, RF-CMOS devices. Short-channel CMOS device physics, Parasitic CMOS device elements, Advanced small-signal bulk and SOI RF-CMOS device models, Ultra-low-power device and circuit design techniques, On-wafer microwave measurement and calibration techniques, and S-parameter device evaluation methods. PREREQ: ECE 420/520.

ECE 530 DIGITAL HARDWARE DESIGN (3-0-3)(F/S). Advanced topics in digital system design emphasizing the specification and design of complex digital hardware systems. Applications include design of synchronous state machines, asynchronous digital systems, and simple digital control circuits using hardware descriptive languages for field programmable gate arrays and complex programmable logic. PREREQ: ECE 230 and either COMPSCI 117 or COMPSCI 125.

ECE 532 COMPUTER ARCHITECTURE (3-0-3)(F/S). Structure of computer systems using processors, memories, input/output (I/O) devices as building blocks. Computer system instruction set design and implementation, including memory hierarchies, microprogramming, pipelining, and multiprocessors. Issues and tradeoffs and multi-variable optimization algorithms using linear and nonlinear programming methods to design problems in structures, machine components, and energy systems. PREREQ: ECE 332 and COMPSCI 117 or COMPSCI 125.

ECE 533 EMBEDDED AND PORTABLE COMPUTING SYSTEMS (3-0-3)(F/S). Comparison of commercially available microcontrollers and their use in embedded communications and control applications. Power consumption, software development, interprocessor communication, and interfacing with sensors, actuators, and input/output devices. Use of microcontroller cores implemented in programmable logic devices as an alternative to hardwired microcontrollers. An embedded system project is designed and built. PREREQ: ECE 332.


ECE 535 SYSTEMS FOR MULTIMEDIA PROCESSING (3-0-3)(F/S). Study of the general information theory and its applications in speech, imaging, and video processing. Focuses on the underlying structures and architectures for efficient algorithm implementation of video and speech processing systems. Current and future trends in processing, storing, coding, decoding, restoring, and transmission of multimedia information. PREREQ: ECE 457/557 and ECE 430/530, or PERM/INST.
ECE 536 DIGITAL SYSTEMS RAPID PROTOTYPING (3-0-3)(F/S). Use of hardware description languages and hardware programming languages as a practical means to simulate/implement hybrid sequential and combinational systems. Rapid prototyping techniques will be utilized during the implementation. This course focuses upon the actual design and implementation of sizeable digital design problems using the most up-to-date industry Computer Aided Design tools and Field-Programmable Gate Arrays. PREREQ: ECE 430/530.

ECE 557 ASIC CHIP DESIGN (3-0-3)(F). Study of phases of ASIC development implementing standard, specialized and DSP applications. Course covers specifications and pre-design analysis mapping design units into architectures, evaluation of early design choices using CAD behavioral synthesis tools and design libraries, simulation, functional and timing verification issues, synthesis, design optimization, testing, and evaluation. The course supports individual and group projects to build ASIC's implementing RISCs/DSPs/Supercalars/Fuzzy Logic based systems using standard ASIC design CAD tools. PREREQ: ECE 430/530 and ECE 422/522.

ECE 540 INTRO TO INTEGRATED CIRCUIT AND MEMS PROCESSING (3-0-3)(F). Fundamentals of integrated circuit and micro electromechanical systems (MEMS) fabrication technology; semiconductor substrates; theory of unit processes such as diffusion, oxidation, ion implantation, rapid thermal processing, photolithography, wet etching and cleaning, dry etching, thin film deposition; chemical mechanical polishing; process integration; metrology; statistical process control; TCAD. COREQ: ECE 540L. PREREQ: ECE 523 or PERM/INST.

ECE 540L INTRO TO INTEGRATED CIRCUIT AND MEMS PROCESSING LAB (0-3-1)(F). Semiconductor cleanroom practices; heavy lab safety; students will fabricate and test simple structures in lab; application of TCAD to practical problems. COREQ: ECE 540.

ECE 541 ADVANCED TOPICS IN SILICON TECHNOLOGY (3-0-3)(S). Advanced models for unit processes such as diffusion, oxidation, ion implantation, thin film deposition, etching, rapid thermal processing, chemical mechanical polishing, lithography, CMOS, bipolar, and micro electro mechanical systems (MEMS) process integration. Process and device modeling using TCAD. PREREQ: ECE 440/540.


ECE 542L PHOTOLITHOGRAPHY LAB (0-3-1)(F/S). Cleanroom lab experience accompany ECE 542, utilizing a projection-printing wafer stepper, photoresist wafer track, SEM, and optical metrology equipment. Use of TCAD lithography simulation software. PREREQ: ECE 542L.

ECE 543 INTRODUCTION TO MEMS (3-0-3)(F). Overview of MEMS; MEMS device physics including beam theory; electrostatic actuation, capacitive and piezoresistive sensing, thermal sensors and actuators; basic MEMS fabrication techniques; MEMS technologies: bulk micromachining, surface micromachining, and LIGA; MEMS design and modeling; case studies in various MEMS systems. PREREQ: ECE 440/540, or PERM/INST.

ECE 550 STOCHASTIC SIGNALS AND SYSTEMS (3-0-3)(S). Deterministic signal representations and analysis, introduction to random processes and spectral analysis, correlation function and power spectral density of stationary processes, noise mechanisms, the Gaussian and Poisson processes. Markov processes, the analysis of linear and nonlinear systems with random inputs, stochastic signal representations, orthogonal expansions, the Karhunen-Loeve series, channel characterization, introduction to signal detection, linear mean-square filtering, the orthogonality principle, optimum Wiener and Kalmen filtering, modulation theory, and system analysis. PREREQ: ECE 350 and MATH 360 or MATH 361 or equivalent.

ECE 551 COMMUNICATION SYSTEMS (3-0-3)(F). Signals, noise, propagation and protocol in analog and digital communication systems. Bandwidth, Fourier transforms, signal to noise ratio and receiver noise figures. Introduction to modern wireless communication systems such as cellular, wireless data and satellite data systems. PREREQ: ECE 350, and MATH 360 or MATH 361, or PERM/INST.

ECE 552 WIRELESS COMMUNICATIONS (3-0-3)(F/S). Modern cellular communication systems, including propagation, handoff, noise, and interference studies. CDMA and other spread-spectrum systems. PREREQ: ECE 451 or ECE 551.


ECE 557 DIGITAL IMAGE PROCESSING (3-0-3)(F). Pictures and their computer representation. Image digitization, transformation, and prediction methods. Digital enhancement techniques, histogram equalization, restoration, filtering and edge detection. Color models and transformations. Wavelets and morphological algorithms. PREREQ: ECE 350 and COMPSCI 125, or PERM/INST.

ECE 560 LINEAR SYSTEMS (3-0-3)(F/S). Methods of analysis for continuous and discrete-time linear systems. Classical solution of dynamic equations, transforms and matrices are reviewed. Emphasis is on the concept of state space. Linear spaces, concept of state, modes, controllability, observability, canonical forms, state transition matrices and irreducible realizations. State variable feedback, compensation and decoupling. PREREQ: ECE 350, ME 360 or graduate standing.

ECE 561 (ME 561) CONTROL SYSTEMS (3-0-3)(S). Time and frequency domain analysis and design of feedback systems using classical and state space methods. Observability, controllability, pole placement, observers, and discrete time. Multivariable and optimal methods are introduced. May be taken for ECE or ME credit, but not both. PREREQ: ECE 360 or ME 360.

ECE 564 ROBOTICS AND AUTOMATED SYSTEMS (3-0-3)(F). An introduction to robotics with emphasis on automated systems applications. Topics include: basis components of robotic systems; selection of coordinate frames; homogeneous transformations; solutions to kinematic equations; velocity and force/torque relations; manipulator dynamics; digital simulation of manipulator motion; motion planning; actuators of robots; sensors of robots; obstacle avoidance; and control design. PREREQ: ECE 360, ME 360 or PERM/INST.

ECE 570 ELECTRICAL MACHINES (3-0-3)(S). Magnetic materials and magnetic circuits, Transformers. Principles of electromechanical energy conversion, energy and coenergy concepts, forces and torques of electromagnetic origin. Introduction to rotating machines including synchronous machines and induction machines. PREREQ: ECE 225 and ECE 390.

ECE 571 ELECTRIC MOTOR DRIVES (3-0-3)(F/Even years). Induction machines and drives, direct-current and permanent-magnet machines and drives, synchronous machines and drives. Control of single-phase and special machines. PREREQ: ECE 360 or ME 360 and ECE 470/570, or PERM/INST.


ECE 573 POWER SYSTEM ANALYSIS I (3-0-3)(F). Three-phase AC systems, generators, transformers, transmission lines, one-line diagrams, per-unit system, network calculations, load flow studies, power system operation. PREREQ: ECE 225, ECE 300.

ECE 574 POWER SYSTEM ANALYSIS II (3-0-3)(S). Fault analysis, symmetrical components, power system transients, protection and relaying.
transient stability, power system operation and control, power system economics, power quality, and power system reliability. PREREQ: ECE 473/573.

ECE 601 ADVANCED ELECTROMAGNETIC THEORY (3-0-3)(S)(Even years). Advanced topics in static and dynamic electromagnetic field theory for engineering applications including bounded structures and radiators; solution of scalar and vector boundary value problems; Kirchhoff radiation theory; geometrical diffraction theory, and numerical methods. PREREQ: ECE 500.

ECE 602 PLASMA AND ELECTRON DEVICES (3-0-3)(F)(Even years). Advanced topics in plasma devices including plasma waves, plasma generation, and device applications for plasma processing and vacuum electronics. Advanced topics in microwave vacuum electron devices including oscillators and amplifiers for both high power and high frequency. PREREQ: ECE 500 and ECE 501.

ECE 614 ADVANCED ANALOG IC DESIGN (3-0-3)(F/S). Advanced analog design considerations including: noise, common-mode feedback, high-speed, design for signal processing, filter design. PREREQ: ECE 411/S1.

ECE 615 CMOS MIXED-SIGNAL IC DESIGN (3-0-3)(F/S). Design of Nyquist-rate A/D and D/A converters, sigma-delta data converters, and custom digital filters. PREREQ: ECE 411/S1.

ECE 629 QUANTUM EFFECTS IN MOS DEVICES (3-0-3)(F/S). Computational methods will be used to examine quantum mechanical effects in MOS devices. Effects such as tunneling, triangular quantum well effects and poly-Si depletion will be examined. PREREQ: ECE 325 and PHYS 310.

ECE 631 DIGITAL SYSTEM TESTING AND TESTABLE DESIGN (3-0-3)(F/S). In-depth theory and practice of fault analysis, test set generation, and design for testability of digital systems. Topics include system modeling, fault sources and types; fault simulation methods; automatic test pattern generation (ATPG) for combinational and sequential circuits; testability measures; design-for-testability; scan design; test compression methods; logic-level diagnosis; built-in self-testing (BIST); VLSI testing issues; processor and memory testing. Advance research issues, including topics on mixed signal testing are also discussed. PREREQ: ECE 430/S30, and ECE 410/S10.

ECE 632 ADVANCED COMPUTER ARCHITECTURE (3-0-3)(F/S). Study of up-to-date multiprocessor systems and parallel computing architectures. Covers basic architectural concepts and their performance evaluation, design principles of VLIW and superscalar architectures, multithread and data-flow computers, shared and distributed memory MIMDS, associative and neural architectures. Focuses on significant trends in building systems on a chip. PREREQ: ECE 432/532.

ECE 634 LARGE SCALE DISTRIBUTED SYSTEMS DESIGN (3-0-3)(F/S). Fundamental principles, critical issues and latest techniques involved in the design of advanced computer controlled systems. Emphasizes using design requirements, hardware-software tradeoffs, redundancy, and testability to develop highly reliable systems. Topics include software/hardware tradeoffs, memory hierarchy design, calculation of availability, simulation, and communication requirements. Tools and techniques used to develop systems. Incorporates case studies of actual systems. A design project will be included and consists of designing a system driven by embedded computers. PREREQ: ECE 432/532.

ECE 635 HARDWARE IMPLEMENTATION OF DSP ALGORITHMS (3-0-3)(F/S). Implementation methods of DSP algorithms in programmable logic environment. Hardware required for DSP implementation: architectures; arithmetic; digital filters including FIR, IIR and CIC. Course will also cover the efficient implementation of these algorithms and their impact on the implementation process and product costs. PREREQ: ECE 454/554 and ECE 430/530.

ECE 636 HARDWARE/SOFTWARE CODESIGN (3-0-3)(F/S). Covers system level design of embedded systems with a top-down design approach. The students will learn various design steps starting from system specifications to hardware/software implementation and will experience process optimization while considering various design decisions. Students will gain design experience with project/case studies using contemporary high-level methods and tools. PREREQ: ECE 436/536.

ECE 637 SYSTEM ON A PROGRAMMABLE CHIP (3-0-3)(F/S). Covers the design of embedded system within a single integrated circuit. Such a system consists of multiple intellectual property cores interconnected by common infrastructure. This course will also explore the challenges to design and test a complete system on chip. Exercises/projects will be given to design, synthesize, and simulate using modern computer aided design (CAD) tools. Resulting systems will be targeted in reprogrammable hardware. PREREQ: ECE 436/536.

ECE 640 ADVANCED MICROFABRICATION (3-0-3)(F/S). Advanced micro/nano-fabrication techniques; advanced process modeling and simulation of thermal processes, ion implantation, thin-film deposition, dry etching, CMP, and lithography; CMOS/device integration; process variability and control; metrology; parametric test. PREREQ: ECE 440/S40.

ECE 646 FRONTIERS OF IC PROCESSING (3-0-3)(F/S). Recent and proposed developments in semiconductor process technology. Course modules: Lithography, Deposition, Doping and Etch processes. PREREQ: ECE 440/S40.

ECE 651 INFORMATION AND CODING THEORY (3-0-3)(F/S). Information measures, characterization of information sources, coding for discrete sources, the noiseless coding theorems, construction of Huffman codes. Discrete channel characterization, channel capacity, noisy-channel coding theorems, reliability exponents. Various error-control coding and decoding techniques, including block and convolutional codes. Introduction to waveform channels and rate distortion theory. PREREQ: ECE 530.


ECE 657 ADVANCED DIGITAL IMAGE PROCESSING (3-0-3)(F/S). Advanced course in digital image processing. Topics will include image storage formats, image compression techniques, acquisition system calibration, geometric transformations, edge detection and image segmentation, adaptive techniques, video, halftoning, 3D images and topics of specific student interest. PREREQ: ECE 557 or equivalent.


ECE 681 MMIC DESIGN (3-0-3)(F/S). Technology, design and analysis of monolithic microwave integrated circuits; passive and active microwave circuit elements; high frequency substrates, individual design projects utilize modern computer-aided design software. PREREQ: ECE 500.

ECE 682 QUANTUM ELECTRONICS (3-0-3)(F/S). Quantized electromagnetic field, interaction of radiation and atomic systems, laser oscillation, semiconductor lasers, parametric amplification, phase conjugate optics. PREREQ: PHYS 412/512.
Department of Instructional & Performance Technology

Chair: Donald Stepich  
Engineering and Technology Building, Room 327, Mail Stop 2070  
Telephone (208) 426-1312  
FAX (208) 426-1970  
http://ipt.boisestate.edu  
e-mail: lburnett@boisestate.edu

Graduate Faculty: Yonnie Chyung, Linda Huglin, Anthony Marker, Donald Stepich, Steven Villachica, Donald Winiecki

Adjunct Graduate Faculty: David Cox, Gary Dickelman, Diane Gayeski, Robert Horton, Terrell Perry, Mary Norris Thomas

Graduate Degrees Offered

• Master of Science in Instructional & Performance Technology  
• Graduate Certificate in Human Performance Technology  
• Graduate Certificate in Workplace E-Learning and Performance Support

General Information

The Master of Science in Instructional and Performance Technology is designed to prepare individuals for careers in instructional design, performance technology, training and development, training management, workplace e-learning, human resources, organizational development, and performance consulting. The program helps individuals acquire a broad range of knowledge and skills required to identify, analyze, and solve a variety of human and organizational performance problems in settings such as business and industry, the military, government agencies, and nonprofit organizations. In this program, students learn how to think strategically and design interventions that will address all of the factors required to achieve desired results.

The Graduate Certificate in Human Performance Technology is designed for individuals who wish to develop skills in diagnosing and solving performance problems in the workplace. This program emphasizes the practical application of process models, tools, and techniques to workplace performance improvement situations.

The Graduate Certificate in Workplace E-Learning and Performance Support is designed for individuals who wish to develop skills in developing and managing e-learning and performance support in the workplace. This program emphasizes the competencies required to design, develop, and manage workplace e-learning and performance support systems.

On-Campus and Online Course Options

In addition to traditional on-campus courses, the IPT Department offers an online option in which students can complete courses entirely online. Both on-campus and online options are fully accredited by the Northwest Commission on Colleges and Universities (NWCCU).

Online courses are conducted primarily through asynchronous computer conferencing via the Web or Lotus Notes client software. Courses taught in this medium enable students to engage in ’threaded’ discussions that promote a high level of interaction between instructor and students and among class members. These courses are especially useful for working professionals and individuals who travel for their jobs or relocate before completing their degree.

The online option uses the same admission standards and required courses as the on-campus option. However, special equipment is required, fees are higher for online course than for on-campus courses, and course offerings are scheduled through Extended Studies. The reason for the additional cost is that the online courses are self-supporting and are not subsidized by state taxes. However, a discounted rate is available for Idaho residents and active duty U.S. military personnel. Schedules for online courses are available in an official release from the Division of Extended Studies and on the IPT website at http://ipt.boisestate.edu.

Simultaneous Enrollment in Graduate Programs

A student may be simultaneously enrolled in the Master of Science in IPT program and either the Human Performance Technology (HPT) certificate or Workplace E-Learning and Performance Support (WELPS) certificate with approval from the IPT Graduate Coordinator and the Dean of the Graduate College. A student who is not enrolled in the Master of Science in IPT program may be simultaneously enrolled in the HPT and WELPS certificate programs with approval from the IPT Graduate Coordinator and the Dean of the Graduate College. Simultaneous enrollment in more than two graduate programs is prohibited.

Please note that admission to a certificate program does not guarantee admission to the degree program and vice versa. Credits earned in an IPT certificate program may be applied to the Master of Science degree in IPT.
Graduate Assistantships
A limited number of graduate assistantships is available for full-time, on-campus students. Graduate assistantships include a stipend and a waiver of fees and require approximately 20 hours of service to the University per week. Appointments are made for a period of one academic year. Graduate assistants must be fully admitted into the IPT degree program, enroll for a minimum of nine credit hours of on-campus courses each semester, and meet any other requirements as set forth by the Graduate College. Applications are available from the IPT office, the Graduate College office, or IPT website. The application deadline is April 1 for the next academic year.

Admission and Application Requirements

Admission Requirements
Requirements for admission to the M.S. degree program and/or the IPT certificate programs are:

1. Documented evidence of an earned baccalaureate degree from an accredited institution.

2. A GPA of 3.0 computed for all undergraduate credits or a 3.0 computed for the last half of the undergraduate credits. Applicants who do not meet this requirement may submit a petition to the IPT Graduate Program Coordinator.

3. A fit between the applicant’s career goals and the IPT program to which s/he is applying.

Application Procedures
An applicant to the M.S. degree program and/or the IPT certificate programs must follow the general Graduate College application procedures (see the Graduate Admission Regulations section of this catalog). In addition, for each program, applicants must submit to the IPT office:

1. A current resume.

2. A one to two page “essay of intent” that describes their career goals and how the specific program the candidate is applying for will help achieve those goals.

Once the application is complete, it will be reviewed by the IPT Graduate Program Coordinator, who will provide an admission recommendation to the Dean of the Graduate College. The Dean will make the final admission decision and notify the applicant.

Master of Science in Instructional & Performance Technology

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<td>IPT 530 Evaluation Methodology</td>
<td>4</td>
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<tr>
<td>IPT 535 Principles of Adult Learning</td>
<td>4</td>
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<tr>
<td>IPT 536 Foundations of Instructional and Performance Technology</td>
<td>4</td>
</tr>
<tr>
<td>IPT 537 Instructional Design</td>
<td>4</td>
</tr>
<tr>
<td>IPT 560 Human Performance Technology</td>
<td>4</td>
</tr>
</tbody>
</table>

Thesis Option:

Electives ................................................................. 6
IPT 593 Thesis (Oral defense required) ................. 6
(At least one semester of residence on campus required.)

OR

Project Option:
Electives ................................................................. 6
IPT 591 Project (Oral defense required) ................. 6
(At least one semester of residence on campus required.)

OR

Portfolio Option:
Electives (Oral defense required) ......................... 12

OR

Nonthesis Option:
Electives (Comprehensive examination required) ...... 12

TOTAL 36

Academic Scholarship Requirement
Students are expected to meet the Graduate College academic requirements. In addition, grades below B in required courses cannot be used to meet the requirements of the M.S. degree in IPT.

Residency Requirement for Project or Thesis Option
In order to complete the project or thesis option, students are required to be in residence on campus for at least one semester during which they are enrolled in IPT 591 Project or IPT 593 Thesis. (Petitions for exceptions should be made to the IPT Program Committee.) Consequently, students in the online IPT program are invited to come to campus to participate in the project/thesis option, or they may pursue the portfolio or nonthesis option with no obligation to be on campus at any time.
College of Engineering
Department of Instructional & Performance Technology

Graduate Certificate in Human Performance Technology

Graduate Program Coordinator: Donald Stepich
Engineering & Technology Building, Room 327, Mail Stop 2070
Telephone (208) 426-1312
http://ipt.boisestate.edu
e-mail: dstepich@boisestate.edu

Certificate Requirements

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPT 529 Needs Assessment</td>
<td>4</td>
</tr>
<tr>
<td>IPT 530 Evaluation Methodology</td>
<td>4</td>
</tr>
<tr>
<td>IPT 536 Foundations of Instructional and Performance Technology</td>
<td>4</td>
</tr>
<tr>
<td>IPT 560 Human Performance Technology</td>
<td>4</td>
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<tr>
<td><strong>TOTAL</strong></td>
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</tbody>
</table>

Graduate Certificate in Workplace E-Learning and Performance Support

Graduate Program Coordinator: Donald Stepich
Engineering & Technology Building, Room 327, Mail Stop 2070
Telephone (208) 426-1312
http://ipt.boisestate.edu
e-mail: dstepich@boisestate.edu

Certificate Requirements

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Core Course</td>
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<tr>
<td>IPT 525 E-Learning Principles and Practices</td>
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<tr>
<td>Elective Courses</td>
<td>12</td>
</tr>
<tr>
<td>IPT 511 Synchronous E-Learning in the Workplace</td>
<td>3</td>
</tr>
<tr>
<td>IPT 523 Rapid E-Learning Development</td>
<td>3</td>
</tr>
<tr>
<td>IPT 550 Blended Learning for Performance Improvement</td>
<td>3</td>
</tr>
<tr>
<td>IPT 551 Designing Computer-Based Training</td>
<td>3</td>
</tr>
<tr>
<td>IPT 561 Human Factors Engineering</td>
<td>3</td>
</tr>
<tr>
<td>IPT 563 Job Aids and Electronic Performance Support</td>
<td>3</td>
</tr>
<tr>
<td>IPT 584 Selected Topics: Applications of Web Technologies</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

Course Offerings

IPT — INSTRUCTIONAL & PERFORMANCE TECHNOLOGY
IPT 510 COLLABORATIVE ONLINE COMMUNICATIONS AND LEARNING (1-0-1)(F/S). Students will learn technologies that help develop collaborative online learning communities and learn technical skills that help them become successful online learners. Students will examine synchronous and asynchronous online communication tools to facilitate small and large group communications, and conduct research using online library systems on the web.


IPT 523 RAPID E-LEARNING DEVELOPMENT (3-0-3)(SU)(Odd years). Students will learn foundational principles for implementing e-learning solutions. Students will evaluate e-learning demo programs and study the use of reusable learning objects, sharable content objects, metadata and e-learning.
standards in the current e-learning practice. Students will develop sample multimedia learning objects and implement them on a learning management system. PREREQ: IPT 536 or PERM/INST.

IPT 529 NEEDS ASSESSMENT (4-0-4)(F/S). Through analysis of case studies, guided practice, field work, and other methods, students learn to use tools, data, and systematic methods to identify and assess current or future performance problems and their causes, and help decision makers target critical problems with feasible solutions. Students will conduct an authentic project. PREREQ: IPT 536.

IPT 530 EVALUATION METHODOLOGY (4-0-4)(F,S). Students learn how to use methods of inquiry and analysis to evaluate the effectiveness of instructional or performance improvement programs. They explore various models of both formative and summative evaluations and ways to implement the results of such research efforts. Students will gain hands-on experience in conducting evaluations. COREQ: IPT 536.

IPT 531 OVERVIEW OF RESEARCH DESIGN, MEASUREMENT, AND STATISTICS (3-0-3)(F). Students receive a foundation in the relationships among research design, measurement, and statistics. Topics covered include scaling, reliability, validity, norm- vs. criterion-referenced testing, forms of distributions, measures of central tendency and variability, basic quantitative research designs and their appropriate statistical tests, and methods for critiquing quantitative research.

IPT 532 ETHNOGRAPHIC RESEARCH IN ORGANIZATIONS (3-0-3)(F). Ethnography is an approach to learning about the social and cultural life of communities, organizations, institutions and other settings that discovers how the activities of people in those settings contribute to the creation of society and culture. Students receive a foundation in philosophical perspectives and methods supporting ethnographic research, learn when to conduct ethnographic research, and explore strategies for presenting and critiquing ethnographic research. They will also be provided with an opportunity to implement ethnographic research in organizational settings. PREREQ: IPT 536.

IPT 535 PRINCIPLES OF ADULT LEARNING (4-0-4)(F,S). Students explore how contemporary adult learning theories and practices are applied to the field of instructional and performance technology, particularly with respect to the instructional design process. They will investigate methods, strategies and technologies specific to adult learners that are known to affect learning outcomes. Students will apply adult learning principles to real workplace problems.

IPT 536 FOUNDATIONS OF INSTRUCTIONAL AND PERFORMANCE TECHNOLOGY (4-0-4)(F/S). Students study historical foundations, prominent people, and events that contributed to the development of the fields of instructional technology and performance technology. They apply relevant theories and models to real or realistic organizational situations in industry, government, military, and non-profit settings.

IPT 537 INSTRUCTIONAL DESIGN (4-0-4)(F,S). This course gives an overview of several models for instructional systems design and examines the processes involved in designing effective instructional interventions. Working with a real client, students conduct a full-scale instructional design project in phases over the duration of the course. PREREQ: IPT 535 and IPT 536.

IPT 538 INSTRUCTIONAL STRATEGIES (3-0-3)(S)(Even years)/(SU)(Odd years). Instructional strategies are prescriptive patterns that guide the task of designing learning activities. Students will identify and experiment with several types of instructional strategies. Given a variety of instructional needs, students will practice selecting and implementing appropriate strategies.

IPT 540 APPLICATIONS OF LEARNING STYLES IN INSTRUCTIONAL AND PERFORMANCE TECHNOLOGY (3-0-3)(F). The behavioral characteristics exhibited by different learning/cognitive styles, modalities, personality types, multiple intelligences, and emotional intelligences will be explored. Related preferences for different learning environments, media, instructional and testing methods will be examined, as well as the utility of these constructs for addressing performance problems in the workplace.

IPT 550 BLENDED LEARNING FOR PERFORMANCE IMPROVEMENT (3-0-3)(SU)(Even years). Students investigate various learning technologies that can contribute to the building and sharing of individual and organizational knowledge. Based on analysis of learners' performance needs, students design blended approaches to improving workplace learning and performance by combining face-to-face learning and e-learning.

IPT 551 DESIGNING COMPUTER-BASED TRAINING (3-0-3)(SU)(Even years). Students learn to apply the principles of instructional design, instructional message design and human-computer interface design within the context of Computer-Based Training (CBT). PREREQ: IPT 537 or PERM/INST.

IPT 560 HUMAN PERFORMANCE TECHNOLOGY (4-0-4)(F,S). Students examine the foundations, process models, solutions, professional practice issues, and future trends of the field of human performance technology (HPT), which aims to improve performance in the work place or in learning situations. In a hands-on project, students practice applying HPT to design effective performance solutions. PREREQ: IPT 530 and IPT 536, COREQ IPT 529.

IPT 561 HUMAN FACTORS ENGINEERING (3-0-3)(SU)(Even years). This course provides a basic introduction to Human Factors Engineering to design of performance environments (including human-machine interfaces). Students learn principles of work and learning system design that help to improve human performance.

IPT 563 JOB AIDS AND ELECTRONIC PERFORMANCE SUPPORT (3-0-3)(S)(SU)(Odd years). This course will provide students with a review of research and practical methods related to prescribing, designing, and creating job aids and performance support in ways that improve workplace performance. Students in this project-based course will analyze human performance gaps, specify performance requirements, prototype performance support solutions, and create performance support solutions. PREREQ: IPT 536 or PERM/INST.

IPT 564 MOTIVATION IN INSTRUCTIONAL AND PERFORMANCE TECHNOLOGY (3-0-3)(F). An in-depth study of motivation as one of the fundamental variables underlying human learning, behavior, and performance improvement. Students examine theories of motivation and apply the principles derived therefrom to produce strategies that motivate learning and improved performance.

IPT 571 MANAGEMENT CONCERNS FOR PERFORMANCE TECHNOLOGISTS (3-0-3)(On demand). This course provides students with an exposure to current topics in management which are related to understanding performance systems.

IPT 574 PERFORMANCE CONSULTING (3-0-3)(S)(Even years)/(SU)(Odd years). Examine the major theoretical foundations, principles and practices of performance consulting. PREREQ: IPT 536.

IPT 575 PROJECT MANAGEMENT (3-0-3)(S)(Odd years)/(SU)(Even years). Examine principles related to project management, leading a project team, building client partnerships and targeting projects to meet an organizational need.

IPT 583 SELECTED TOPICS IN INSTRUCTIONAL TECHNOLOGY (3-0-3)(On demand). Students explore issues and topics of current interest. Content will be revised continually to reflect current developments in the field of instructional and performance technology. PREREQ: IPT 536 or PERM/INST.

IPT 584 SELECTED TOPICS: APPLICATIONS OF WEB TECHNOLOGIES (Variable credits)(F). Basic and intermediate design of instructional and performance interventions using selected web technologies. Refer to the “University-wide Graduate Courses” section in this catalog for additional course offerings.
Department of Materials Science and Engineering

Chair: Darryl Butt
Engineering and Technology Building, Room 240C, Mail Stop 2075
Telephone (208) 426-1054
FAX (208) 426-2470
e-mail: darrylbutt@boisestate.edu

Engineering Graduate Faculty: Darryl Butt, Janet Callahan, Kris Campbell, Sean M. Donovan, Megan Frary, Will Hughes, William Knowlton, Amy Moll, Peter Müllner, Rick Ubic, Bernard Yurke

Physics Graduate Faculty: Charles Hanna, Byung-II Kim, Alex Punnoose, Dmitri Tenne

Chemistry and Biochemistry Graduate Faculty: Eric Brown, Henry Charlier, Jeunghoon Lee, Owen, McDougal, Jeff Peloquin, Dale Russell, Martin Schimpf, Don Warner

Biological Sciences Graduate Faculty: Julia Thom Oxford

Graduate Degrees Offered

• Master of Science in Materials Science and Engineering
• Master of Engineering in Materials Science and Engineering

General Information

The Department of Materials Science and Engineering offers two distinct graduate degree programs. The program leading to the Master of Science in Materials Science and Engineering (M.S. MSE) is a thesis-based program designed to prepare students for research and development and further study at the doctoral level. The program leading to the Master of Engineering in Materials Science and Engineering (M.Engr. MSE) is a non-thesis program with a focus on professional development.

(See the Interdisciplinary Programs section for program descriptions and course offerings.)

Department of Mechanical and Biomedical Engineering

Chair: James R. Ferguson
Engineering Technology Building, Room 201, Mail Stop 2075
Telephone (208) 426-3679
FAX (208) 426-4800
e-mail: jferguson@boisestate.edu

Graduate Faculty: Paul Dawson, Rudy Eggert, James Ferguson, John Gardner, Joe Guarino, Donald Parks, Donald Plumlee, Michelle Sabick, Inanc Senocak, Steven Tennyson

Adjunct Graduate Faculty: Steven Hatten

Graduate Degrees Offered

• Master of Science in Mechanical Engineering
• Master of Engineering in Mechanical Engineering

General Information

The Department of Mechanical and Biomedical Engineering offers two distinct engineering graduate degree programs. The program leading to the Master of Science in Mechanical Engineering (M.S. ME) is a thesis-based program designed to prepare students for research and development and further study at the doctoral level. The program leading to the Master of Engineering in Mechanical Engineering (M.Engr. ME) is a non-thesis program with a focus on professional development.

Application and Admission Requirements

Admission Requirements. An applicant must satisfy the minimum admission requirements of the Graduate College. In addition, the applicant must hold a baccalaureate degree in mechanical engineering from an ABET-accredited program or a baccalaureate degree in a closely related field, and must follow the application procedures specified below. Admission is competitive and the achievement of minimum requirements does not guarantee admission.

Application Procedures. A prospective student may apply at any time and should follow the general graduate application procedure for degree-seeking students (see Applying as a Degree-Seeking Student in this catalog). The applicant must also 1) submit a statement of purpose to the mechanical engineering graduate program coordinator, 2) have three letters of recommendation submitted directly by the references to the graduate program coordinator, and 3) arrange to have GRE General Test scores submitted by the Educational Testing Service (www.ets.org) directly to Boise State University (code R4018). The statement of purpose should give the educational and professional background of the student and his or her motivation for graduate study including career goals. Applicants holding a baccalaureate degree from the College of Engineering of Boise State University are not required to submit GRE scores. Once the applicant’s file is complete, it will be evaluated by the Mechanical Engineering Graduate Studies Committee and an admission
recommendation (regular, provisional, or denial) will be forwarded to the Dean of the Graduate College. In order to ensure proper mentoring of all graduate students, a recommendation for regular or provisional admission will not be forwarded unless a faculty member of the Department of Mechanical and Biomedical Engineering is available to serve as the major advisor. The graduate dean will make the final admission decision and notify the applicant and the Mechanical Engineering Graduate Studies Committee.

Advisor and Supervisory Committee
For a student admitted to the M.S. ME program, the Mechanical Engineering Graduate Studies Committee will initiate the assignment of a supervisory committee including a major advisor who serves as chair. The role of the supervisory committee is to guide the student in all aspects of his or her graduate study. For a student admitted to the M.Engr. ME program, the Mechanical Engineering Graduate Studies Committee will appoint a major advisor; student mentoring will be provided by the major advisor and the chair of the department.

Master of Science in Mechanical Engineering
Graduate Program Coordinator: Steve Tennyson
Engineering Technology Building, Room 232, Mail Stop 2075
Telephone (208) 426-4422
e-mail: stennyson@boisestate.edu

Degree Requirements
Students must complete at least 30 graduate credits distributed as shown in the degree requirements table. A written thesis proposal with oral presentation to the supervisory committee is required prior to the completion of 15 credits applicable to the degree requirements. Work on the thesis can only be undertaken after approval of the thesis proposal by the supervisory committee. The thesis must constitute an original contribution to knowledge in mechanical engineering and must be successfully defended at a final oral examination. All work directly related to the thesis must be represented by at least 6 credits of ME 593.

<table>
<thead>
<tr>
<th>Master of Science in Mechanical Engineering</th>
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<tbody>
<tr>
<td><strong>Course Number and Title</strong></td>
</tr>
<tr>
<td>Graduate ME Courses</td>
</tr>
<tr>
<td>Graduate courses in mechanical engineering; all courses to be selected with student input and approved by the supervisory committee.</td>
</tr>
<tr>
<td>Other Graduate Courses</td>
</tr>
<tr>
<td>Graduate courses in mechanical engineering or a related field; all courses to be selected with student input and approved by the supervisory committee.</td>
</tr>
<tr>
<td>Thesis</td>
</tr>
<tr>
<td>ME 593 Thesis (P/F)</td>
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<tr>
<td>TOTAL</td>
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</tbody>
</table>

Special Rule on Transfer Credit The normal transfer credit policies of the Graduate College hold except that up to 15 transfer credits earned in combination at the University of Idaho and Idaho State University may be applied to either degree program (M.S. ME or M.Engr. ME) with the approval of the supervisory committee.

Course Offerings
Additional work will be required to receive graduate credit for undergraduate G courses.

ME—MECHANICAL ENGINEERING
ME 402G APPLIED NUMERICAL METHODS FOR ENGINEERS (3-0-3) (F/S). Approximate and numerical methods for solving systems of linear and nonlinear equations, and ordinary and partial differential equations with engineering applications. Finite difference and finite element techniques; roots, curve fitting and numerical integration. PREREQ: MATH 333 and structured programming.
ME 420G THERMODYNAMICS II (3-0-3)(F/S). Advanced topics and applications of thermodynamics include power and refrigeration cycles, combustion, mixed gas properties, chemical equilibrium, and psychometric applications. PREREQ: ENGR 220 and MATH 275.
ME 472G VIBRATIONS (3-0-3)(F/S). Theory and methods for analysis of vibrating physical systems. Natural frequencies, mode shapes, damping, forced vibrations, and frequency-response functions are analyzed by using computer simulation. PREREQ: ENGR 220 and MATH 333.

Master of Engineering in Mechanical Engineering
Graduate Program Coordinator: Steve Tennyson
Engineering Technology Building, Room 232, Mail Stop 2075
Telephone (208) 426-4422
e-mail: stennyson@boisestate.edu

Degree Requirements
Students must complete at least 31 graduate credits distributed as shown in the degree requirements table. A maximum of 3 credits of ME 596 Independent Study may be applied to meet the degree requirements. The comprehensive examination cannot be attempted prior to the last semester of the program. If the comprehensive examination is failed on the first attempt, then the student will be permitted a second attempt. Failure on the second attempt will result in dismissal from the program.

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<tr>
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</tr>
<tr>
<td>Comprehensive Examination</td>
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<tr>
<td>ME 600 Assessment (P/F)</td>
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<td>TOTAL</td>
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</table>

Boise State University 2009-2010 Graduate Catalog 143
ME 486G HUMAN FACTORS DESIGN (3-0-3)(F/S). Anthropometry, biomechanics, and psychology applied to machinery and systems designs which involve human interaction. Design considerations include efficiency, productivity, environmental factors, human capabilities, comfort, and safety. Design projects demonstrate concepts and methodologies. PREREQ: Senior standing.

ME 510 CONTINUUM MECHANICS (3-0-3)(F/S). Development and analysis of fundamental relationships and constitutive equations for deformation, strain, and stress of materials occupying a continuous domain. Eulerian and Lagrangian methods are covered. Vector and tensor techniques developed. PREREQ: Graduate standing or PERM/INST.

ME 522 ADVANCED THERMODYNAMICS (3-0-3)(F/S). Advanced topics selected from Statistical Thermodynamics, Thermodynamics of Chemically Reacting Gases, Thermodynamics Property Formulation for Computer Applications and others at the discretion of the professor. PREREQ: ME 420.

ME 526 RENEWABLE ENERGY SYSTEMS (3-0-3)(F/S). A survey of renewable energy systems including solar, wind, biomass, as compared to traditional electric power production and distribution. PREREQ: ENGR 210, ENGR 320, ENGR 330.

ME 530 FLUID DYNAMICS (3-0-3)(F/S). Advanced fluid mechanics theory and applications in potential flow, boundary layer theory, viscous flow, turbulence, vorticity dynamics and circulation, compressible flow and gas dynamics, open channel flow, turbomachinery, stratified flow, laws, and introduction to computational fluid dynamics. PREREQ: ENGR 330, MATH 333, and either MATH 275 or MATH 272.


ME 533 DYNAMIC METEOROLOGY (3-1-3)(F/S). Atmospheric dynamics, conservation laws, planetary boundary layers, large scale motions and circulations, numerical modeling, prediction, meteorological resources, weather analysis, and forecasting. PREREQ: MATH 333 and either MATH 275 or MATH 272.

ME 536 COMPUTATIONAL FLUID DYNAMICS (3-0-3)(F/S). Theory and numerical modeling in fluid dynamics. Finite difference, finite volume, and finite element techniques will be treated. The course will include projects and research applications in engineering and environmental flows. PREREQ: ENGR 330, structured programming, or PERM/INST.

ME 537 CONDUCTION HEAT TRANSFER (3-0-3)(F/S). Steady and unsteady conduction of heat through solids, liquids, and gases. Analytical and numerical solution methods for ordinary and partial differential equations modeling heat transfer. PREREQ: Graduate standing or PERM/INST.

ME 538 CONVECTIVE HEAT TRANSFER (3-0-3)(F/S). Treatment of energy and linear momentum conservation equations: laminar and turbulent forced convective HT in internal and external flow fields; free convection. PREREQ: ME 320, ME 321.

ME 539 RADIATION HEAT TRANSFER (3-0-3)(F/S). Radiation heat transfer due to emission and absorption between surfaces and within materials. Analytical and numerical solutions for steady and unsteady heat transfer due to radiation as a dominant process or in combination with convection and conduction. PREREQ: Graduate standing or PERM/INST.


ME 556 INTRODUCTION TO SOLID BIOMECHANICS (3-0-3)(S). Students will learn to apply the principles of engineering mechanics to the human musculoskeletal system. Topics covered include functional anatomy, human motion analysis, mechanical properties of biological tissues, and modeling of the human body. PREREQ: ENGR 220 or PERM/INST.

ME 560 COMPUTER AIDED DESIGN (3-0-3)(F/S). Computer programs used to develop 3-D CAD database for design, analysis, simulation, and manufacturing. Machinery design to meet functional, performance, reliability and manufacturing requirements. Design projects reinforce concepts and methodologies. For students desiring higher level CAD skills prior to taking ME 480. PREREQ: ME 320 and ME 382.

ME 561 (ECE 561) CONTROL SYSTEMS (3-0-3)(S). Time and frequency domain analysis and design of feedback systems using classical and state space methods. Observability, controllability, pole placement, observers, and discrete time. Multivariable and optimal methods are introduced. May be taken for ECE or ME credit, but not both. PREREQ: ECE 360 or ME 360.


ME 574 ADVANCED VIBRATIONS (3-0-3)(F/S). Theory and applications of vibrating continuous and discrete multi degree of freedom systems, modal analysis, acquisition and synthesis of data. Experimental and analytical characterization of the vibration response of linear and nonlinear systems, including Transfer and Frequency Response Functions, MMO and SMO, and mathematical modeling. PREREQ: ME 472 or PERM/INST.

ME 576 ADVANCED DYNAMICS (3-0-3)(F/S). Analytical modeling to predict the performance of linked, multi-body mechanical systems undergoing large displacements and rotations. Theoretical considerations in preparing models for computer simulations and interpreting results. Application of a state of the art computer package in creating realistic simulations. PREREQ: ME 380 or PERM/INST.

ME 577 (BIOL 577)(MSE 577) BIOMATERIALS (3-0-3)(F/S). Theory of biomaterials science. Medical and biological materials and their applications. Selection, properties, characterization, design and testing of materials used by or in living systems. May be taken for BIOL, ME, or MSE credit, but not from more than one department. PREREQ: ENGR 245 or CHEM 112.

ME 578 DESIGN AND ANALYSIS OF MECHATRONIC SYSTEMS (3-0-3)(F/S). Design and analysis of engineering systems containing mechanical, electro-mechanical and embedded computer elements. The course provides an overview of basic electronics, digital logic, signal processing and electromechanical devices. Fundamentals of event-driven programming will also be covered. PREREQ: ENGR 240.

ME 582 OPTIMAL DESIGN (3-0-3)(F/S). Analytical and computer methods used to provide optimal design of products or processes. Formulation, specification, figures of merit, controllable variables, constraints and relaxation methodologies. For students desiring higher level CAD skills prior to taking ME 480. PREREQ: ME 320, ENGR 245, ENGR 350, and ME 280.

ME 588 VEHICLE DESIGN (3-0-3)(F/S). Subsystem design for wheeled vehicles including bicycles, motorcycles, cars, trucks and ATVs. Static and dynamic analyses of traction and reaction forces during acceleration, braking and cornering. Suspension response analysis. Subsystem design including suspension, chassis, steering, transmission, brakes, and tires. PREREQ: ENGR 220, ENGR 245, ENGR 350, and ME 280.

ME 586 ADVANCED ENGINEERING DESIGN (3-0-3)(F/S). Integration of systematic methods used to define, develop, and produce competitive products. Topics include: Quality Function Deployment; Functional Decomposition; Design Specification; Failure Modes and Effects Analysis; Design Analysis and Evaluation; Optimal and Robust Design; Design for Manufacture, Assembly, and Service. PREREQ: ME 480 or PERM/INST.

College of Health Sciences

Dean: James Girvan
Health Sciences Riverside Building, Room 207, Mail Stop 1800
Telephone (208) 426-4116
FAX (208) 426-3469
http://hs.boisestate.edu

Associate Dean: Pamela Springer
Telephone (208) 426-4143

Graduate Degrees Offered
- Master of Health Science, Environmental Health
- Master of Health Science, General Research
- Master of Health Science, Health Policy
- Master of Health Science, Health Promotion
- Master of Health Science, Health Services Leadership
- Master of Nursing
- Master of Science in Nursing
- Graduate Certificate in Addiction Studies (See Interdisciplinary Programs)
- Graduate Certificate in Gerontological Studies (See Interdisciplinary Programs)
- Graduate Certificate in Health Services Leadership

Master of Health Science
Graduate Program Director: Theodore McDonald
Health Sciences Riverside Building, Room 104, Mail Stop 1835
Telephone (208) 426-2217
FAX (208) 426-2199
http://hs.boisestate.edu/MHS
e-mail: tmcdonal@boisestate.edu

Graduate Faculty: Jeffrey Anderson, Edward Baker, Patricia Elison-Bowers, James Girvan, Elizabeth Hannah, Elaine Long, Theodore McDonald, Uwe Reischl, Scott Staley, Dale Stephenson, Sarah Toevs

Adjunct Graduate Faculty: Judith Brawer, Kara Cadwallader, Hartzell Cobbs, Mark Emerson, Ginger Floerchinger-Franks, Nancy Fricke, Susan Gelletly, Georgia Girvan, Christine Hahn, Margaret Henbest, Christopher Johnson, Bonnie Lind, Galen Louis, John Moeller, Linda Powell, Terry Spear, Leslie Ann Tengelsen, Stephen West

Emeritus Graduate Faculty: Rudy Andersen, Conrad Colby, Lee Stokes

General Information
The Master of Health Science (MHS) program is designed primarily for the working health professional employed in state and local health agencies, health care institutions, and in private practice. The program, with its areas of emphasis in health policy, environmental health, general health research, health promotion and health services leadership prepares health professionals to be more effective as advocates, administrators and critics of our health delivery systems. It is designed to serve the working professional without interrupting their employment, yet meet the necessary standards for graduate level work. Students can complete a MHS degree and/or a Graduate Certificate in Addiction Studies, Health Services Leadership, or Gerontological Studies.

Although the MHS program is administered by the College of Health Sciences, graduate faculty are drawn from several programs across campus, including Public Affairs, Economics, Kinesiology, Sociology, Psychology, and Biology. The Master of Public Administration (MPA) program, with lead responsibility in the area of public policy, is a key partner in the health policy area of concentration.

Application and Admission Procedures
An applicant must follow the general application procedures for degree-seeking students (see the Graduate Admission Regulations section of this catalog) and must 1) meet with the program director to discuss the admission process, the applicant’s career interests, and reasons for seeking admission to the program, 2) arrange to have three letters of recommendation submitted directly by the references to the graduate program director 3) submit a formal statement of at least 250 words explaining the applicant’s educational and career objectives and how those objectives correspond with the MHS program and 4) complete a proctored writing examination (contact program director to arrange for such an examination to be completed). Applicants whose native language is not English must submit TOEFL scores. Once the file for an applicant is complete, it will be evaluated by the MHS Admissions Committee and an admissions recommendation (regular, provisional, or denial) will be forwarded to the dean of the Graduate College who will make the final decision and notify the applicant.

Conditions for Admission
The conditions for admission are the minimum admission requirements for the Graduate College (see the Graduate Admission Regulations section of this catalog). Preference will be given to applicants with education and work experience in a health-related field. Applicants selecting the health policy emphasis area must be approved by both the MHS and MPA Program Directors. These conditions are necessary for admission to the program but do not guarantee admission.
Advisor and Supervisory Committee

The MHS director will serve as the academic advisor for each student admitted to the program and is responsible for maintaining oversight for each student’s academic progress. Each student who chooses to complete a thesis or project will be responsible for forming a supervisory committee consisting of a major advisor who serves as chair and at least two additional members. The role of the supervisory committee is to guide the student in all aspects of his or her thesis or project research. For thesis and project students, the major advisor also replaces the program director as academic advisor.

Graduate Assistantships

Graduate assistantships covering tuition and fee waivers may be available through research grants and contracts. Contact the MHS director for information on assistantships which may be available from these sources.

Degree Requirements

A minimum of 36 credits is required for graduation (excluding internship credits). The MHS student who attends full time will normally be enrolled for a two-year sequence including summers. Typically, however, students maintain their current employment positions and attend the program part time, thereby extending the length of time required to obtain the degree.

The curriculum (36-39 credits) is comprised of required core courses of 18 credits with an additional 18-21 credits of required area of concentration courses, and a thesis, project, or elective courses. All courses must be approved for application to the degree requirements by the supervisory committee and/or the program director in consultation with the major advisor. Elective courses may be chosen from any approved graduate courses at Boise State University and selected courses from Idaho State University’s Master of Public Health program. An individual program may include no more than 18 credits representing dual-listed courses and G-courses.

### Master of Health Science, Environmental Health

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MHS Graduate Core</td>
<td>18</td>
</tr>
<tr>
<td>Select 9 credits from the following:</td>
<td></td>
</tr>
<tr>
<td>MHLTHSCI 510 Advanced Environmental Health .......... 3</td>
<td></td>
</tr>
<tr>
<td>MHLTHSCI 560 Public Health Disaster Preparedness Planning: Risk Management .................................. 3</td>
<td></td>
</tr>
<tr>
<td>MHLTHSCI 570 Health Promotion ................................... 3</td>
<td></td>
</tr>
<tr>
<td>PUBADM 541 Environmental Regulatory Policy and Administration.................................................. 3</td>
<td></td>
</tr>
<tr>
<td>PUBADM 542 Science, Democracy and Environment .... 3</td>
<td></td>
</tr>
</tbody>
</table>

In addition, students need one 3 credit elective course and 6 credits of thesis or project or 12 credits of additional electives. TOTAL 36-39

NOTE: All applicants for the environmental health emphasis must have met the science requirements for a bachelor’s degree in environmental health. Persons who have no experience in environmental health will also be required to take MHLTHSCI 590 Practicum.

### Master of Health Science, General Research

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MHS Graduate Core</td>
<td>18</td>
</tr>
<tr>
<td>SOC 500 Advanced Social Statistics ......................... 3</td>
<td></td>
</tr>
<tr>
<td>SOC 502 Qualitative Social Research Methods ................ 3</td>
<td></td>
</tr>
<tr>
<td>MHLTHSCI 560 Public Health Disaster Preparedness Planning: Risk Management .................................. 3</td>
<td></td>
</tr>
<tr>
<td>MHLTHSCI 570 Health Promotion ................................... 3</td>
<td></td>
</tr>
</tbody>
</table>

In addition, students need 6 credits of thesis/project or 9 credits of elective course work. TOTAL 36-39

### Master of Health Science, Health Policy

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MHS Graduate Core</td>
<td>18</td>
</tr>
<tr>
<td>ECON 440G Health Economics ........................................ 3</td>
<td></td>
</tr>
<tr>
<td>PUBADM 500 Administration in the Public Sector .......... 3</td>
<td></td>
</tr>
<tr>
<td>PUBADM 501 Public Policy Process .................................. 3</td>
<td></td>
</tr>
<tr>
<td>PUBADM 502 Organization Theory .................................. 3</td>
<td></td>
</tr>
<tr>
<td>MHLTHSCI 550 Current Issues in Health Policy .......... 3</td>
<td></td>
</tr>
</tbody>
</table>

In addition, students need 4 credits of thesis/project or 6 credits of elective course work. TOTAL 37-39
Master of Health Science, Health Promotion

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MHS Graduate Core</td>
<td>18</td>
</tr>
<tr>
<td>MHLTHSCI 550 Current Issues in Health Policy</td>
<td>3</td>
</tr>
<tr>
<td>MHLTHSCI 570 Health Promotion</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 458G Community Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Select 3 credits from the following:</td>
<td></td>
</tr>
<tr>
<td>MHLTHSCI 529 Marketing for Health Professionals</td>
<td></td>
</tr>
<tr>
<td>MHLTHSCI 572 Grant Writing</td>
<td></td>
</tr>
<tr>
<td>PSYC 331G The Psychology of Health</td>
<td></td>
</tr>
<tr>
<td>PUBADM 504 Public Budgeting and Financial Administration</td>
<td></td>
</tr>
<tr>
<td>SOC 502 Qualitative Social Research Methods</td>
<td></td>
</tr>
</tbody>
</table>

In addition, students need 6 credits of thesis/project or 9 credits of elective course work.

TOTAL 36-39

Master of Health Science, Health Services Leadership

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MHS Graduate Core</td>
<td>18</td>
</tr>
<tr>
<td>DISPUT 501 Human Factors in Conflict Management</td>
<td>1</td>
</tr>
<tr>
<td>DISPUT 502 Negotiation Theory and Practice</td>
<td>1</td>
</tr>
<tr>
<td>DISPUT 503 Conflict Intervention Methods</td>
<td>1</td>
</tr>
<tr>
<td>ECON 440G Health Economics</td>
<td>3</td>
</tr>
<tr>
<td>MHLTHSCI 522 Management for Health Professionals</td>
<td>3</td>
</tr>
<tr>
<td>MHLTHSCI 525 Leadership for Health Professionals</td>
<td>3</td>
</tr>
</tbody>
</table>

In addition, students need 6 credits of thesis/project or 9 credits of elective course work.

TOTAL 36-39

Thesis/Project Options

The thesis or project provides Health Science graduate students an opportunity to consolidate the knowledge and skills gained during their graduate studies and to carry out an independent scholarly inquiry of a health science topic. Total credits for thesis or project vary from 4 to 6 and are determined by requirements of the emphasis area. No student may enroll for thesis or project credits until successfully completing MHLTHSCI 505 Health Science Research Methods, MHLTHSCI 555 Program Evaluation in the Health Sciences, and being advanced to candidacy following completion of at least 18 credits of selected course work.

Graduate Certificate in Addiction Studies
(See Section on Interdisciplinary Programs)

Graduate Certificate in Gerontological Studies
(See Section on Interdisciplinary Programs)

Graduate Certificate in Health Services Leadership

Graduate Program Director: Theodore McDonald
Health Sciences Riverside Building, Room 104, Mail Stop 1835
Telephone (208) 426-2217
FAX (208) 426-2199
http://hs.boisestate.edu/MHS
e-mail: tmcdonal@boisestate.edu

The postgraduate Certificate in Health Services Leadership is designed for health professionals employed in state and local health agencies, health care institutions and in private practice. The goal of the certificate program is to prepare students for a variety of leadership and management positions in health related organizations.

Application and Admission Requirements

Students interested in the Graduate Certificate in Health Services Leadership must first submit a graduate application to the Graduate Admissions Office. If approved, the applicant receives a certificate of admission to enroll in courses at Boise State. This certificate is a prerequisite to admission into the Graduate Certificate program, but does not by itself guarantee admission into the certificate program. (The student is advised to consult the General Admission Policies section of this catalog for more detail on admission to the Graduate College.)

Applicants admitted to the Graduate College who wish to apply to the Graduate Certificate in Health Services Leadership program must meet the following requirements prior to enrollment in certificate courses:

1. Possess a baccalaureate degree in a health-related field from an accredited institution.
2. Demonstrate satisfactory academic competency by attaining an overall GPA of at least 3.0 in previous college-level course work.
3. Meet with the MHS Program Director to discuss the admission process, the applicant’s career interests, and reasons for seeking admission to the certificate program.
4. Submit three letters of reference, in which the applicant’s academic potential is evaluated, to the Director, Master of Health Science Program, Boise State University, 1910 University Drive, Boise, ID 83725-1800. (For applicants whose academic record predates the application by five years or more, supervisors may submit letters of recommendation.)
5. Submit letter of interest and resume to MHS Program Director.
6. Complete a proctored writing examination (contact MHS Program Director to arrange for such an examination to be completed).
7. Provide evidence to the MHS Program Director or individual course instructors that course prerequisites are met.

Applicants who do not meet all of the above requirements MAY be DISPUTED—DISPUTE RESOLUTION
multivariate and nonparametric statistics. PREREQ: MATH 147, or PERM/INST.
nonlinear regression theory and analysis of variance. Techniques in problems in the biological sciences. Basic concepts of hypothesis testing;
BIOL 601 BIOMETRY (4-0-4)(F).

A minimum of 15 credits is required for the completion of the Graduate Certificate in Health Services Leadership. The curriculum comprises 12 credits of required course work and 3 additional credits of elective courses.

Certificate Requirements
A minimum of 15 credits is required for the completion of the Graduate Certificate in Health Services Leadership. The curriculum comprises 12 credits of required course work and 3 additional credits of elective courses.

Graduate Certificate in Health Services Leadership

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISPUT 501 Human Factors in Conflict Management</td>
<td>1</td>
</tr>
<tr>
<td>DISPUT 502 Negotiation Theory and Practice</td>
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<tr>
<td>DISPUT 503 Conflict Intervention Methods</td>
<td>1</td>
</tr>
<tr>
<td>MHLTHSCI 522 Management for Health Professionals</td>
<td>3</td>
</tr>
<tr>
<td>MHLTHSCI 525 Leadership for Health Professionals</td>
<td>3</td>
</tr>
<tr>
<td>MHLTHSCI 529 Marketing for Health Professionals</td>
<td>3</td>
</tr>
<tr>
<td>A minimum of three credits from one of the following:</td>
<td>3-4</td>
</tr>
<tr>
<td>ECON 440G Health Economics</td>
<td>3</td>
</tr>
<tr>
<td>IPT 536 Foundations of Instructional and Performance Technology</td>
<td>4</td>
</tr>
<tr>
<td>MHLTHSCI 550 Current Issues in Health Policy</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>15-16</td>
</tr>
</tbody>
</table>

Course Offerings
Additional course work will be required to receive graduate credit for undergraduate G courses.

BIOL—BIOLOGY

BIOL 515 APPLIED AND ENVIRONMENTAL MICROBIOLOGY (3-3-4) (S). Microbial populations and processes in soil and water. Water- and food-borne pathogens. Microbial and biochemical methods of environmental assessment. PREREQ: BIOL 303, and CHEM 301-302 or CHEM 307-308, or PERM/INST.

BIOL 601 BIOMETRY (4-0-4)(F). An application of statistical methods to problems in the biological sciences. Basic concepts of hypothesis testing; estimation and confidence intervals; tests and chi-square tests. Linear and nonlinear regression theory and analysis of variance. Techniques in multivariate and nonparametric statistics. PREREQ: MATH 17, or PERM/INST.

DISPUT—DISPUTE RESOLUTION

DISPUT 500 BASIC MEDIATION SKILLS (3-0-3)(F/S). Students learn the theoretical fundamentals of negotiation and mediation, types of mediation, mediation models, mediation case work skills, building the mediation plan, interpersonal skills for mediation, and various resolution techniques. Students will mediate several actual or simulated practice cases. Cannot be taken if credit has already been received in DISPUT 400.

DISPUT 501 HUMAN FACTORS IN CONFLICT MANAGEMENT (1-0-1) (F). This course presents communication theories to assist managers understanding, analyzing, and managing conflict. The course focuses on the causes of conflict and includes the influence of gender and culture. The course is pragmatic as well as theoretical.

DISPUT 502 NEGOTIATION THEORY AND PRACTICE (1-0-1)(F). The successful negotiator in professional settings is involved in a variety of negotiation activities. The tactics, strategies, and operations of effective and ineffective bargaining/negotiation behaviors will be presented. The course develops negotiator skills and knowledge leading to collaborative based action and solutions.

DISPUT 503 CONFLICT INTERVENTION METHODS (1-0-1)(F). This course overviews the various contexts of third party intervention into conflict: facilitation, public involvement processes, mediation, and arbitration, and develops skills at first level supervisor/manager intervention into employee conflicts.

DISPUT 504 FACILITATING GROUPS IN CONFLICT (1-0-1)(S). Public input processes on controversial issues may generate conflict. The causes and skills for facilitating public input processes will be discussed, as well as techniques for facilitating conflict within small and large group meetings.

DISPUT 546 MEDIATION COMPETENCY BOARD (0-0-1)(F/S). Competency-based testing is required by several mediation professional organizations. Students conduct case work and mediate a case from within their emphasis area before a panel of expert mediators. Students discuss issues of mediation within their specialty area. (Pass/Fail) PREREQ: PERM/PROGRAM DIRECTOR.

ECON—ECONOMICS

ECON 440G HEALTH ECONOMICS (3-0-3)(S). Examines the economics and ethics of health and the health care delivery system. Comparisons will be made to the systems in other countries. The role of information and incentives in the system will be considered. PREREQ: ECON 205, Adission to MHS program, or PERM/PROG DIR.

HLTHST—HEALTH SCIENCE

HLTHST 480G EPIDEMIOLOGY (3-0-3)(F/S). Study of the distribution and determinants of disease within human populations. PREREQ: Upper-division standing and HLTHST 300 or HLTHINFO 205 or MATH 254 or PSYC 295 or SOC 310.

IPT—INSTRUCTIONAL & PERFORMANCE TECHNOLOGY

IPT 532 ETHNOGRAPHIC RESEARCH IN ORGANIZATIONS (3-0-3)(F). Ethnography is an approach to learning about the social and cultural life of communities, organizations, institutions and other settings that discovers how the activities of people in those settings contribute to the creation of society and culture. Students receive a foundation in philosophical perspectives and methods supporting ethnographic research, learn when to conduct ethnographic research, and explore strategies for presenting and critiquing ethnographic research. They will also be provided with an opportunity to implement ethnographic research in organizational settings. PREREQ: IPT 536.

IPT 536 FOUNDATIONS OF INSTRUCTIONAL AND PERFORMANCE TECHNOLOGY (4-0-4)(F/S). Students study historical foundations, prominent people, and events that contributed to the development of the fields of instructional technology and performance technology. They apply relevant theories and models to real or realistic organizational situations in industry, government, military, and non-profit settings.

IPT 540 APPLICATIONS OF LEARNING STYLES IN INSTRUCTIONAL AND PERFORMANCE TECHNOLOGY (3-0-3)(F). The behavioral characteristics exhibited by different learning/cognitive styles, modalities, personality types, multiple intelligences, and emotional intelligences will be explored. Related preferences for different learning environments, media, instructional and testing methods will be examined, as well as the utility of these constructs for addressing performance problems in the workplace.

MBA—MASTER OF BUSINESS ADMINISTRATION

MBA 522 ACCOUNTING AND FINANCIAL ANALYSIS (3-0-3)(F). Introduces basic concepts, standards, and practices of financial reporting so students can read and understand published financial statements. Fundamentals of accounting and finance as it relates to developing a framework for analyzing a firm’s investment and financing decisions are
emphasized. Topics may include income statement and balance sheet preparation, as well as valuation and capital budgeting techniques.

**MBA 527 CREATION AND DISTRIBUTION OF GOODS AND SERVICES (3-0-3)(S)**. An introduction to the creation and distribution of goods and services. Course integrates both marketing and operations management concepts and will discuss the activities associated with product pricing, product promotion, and the manufacturing and delivery of goods and services.

**MBA 531 STRATEGIC PERSPECTIVES (1-0-1)(F)**. Examines the major forces transforming business: boundaries of the firm, market and competitive analysis, dynamics of developing and sustaining advantages, internal organization, major forces in the environment. MBA students should take MBA 531 the first semester of their advanced course work. PREREQ: MBA 512, MBA 514, MBA 522, MBA 527.

**MBA 534 INFORMATION TECHNOLOGY FOR MANAGERS (3-0-3)(S)**. Examines management’s role in designing, implementing, and managing information systems, and the role of information and information technology for achieving a competitive advantage. PREREQ/COREQ: MBA 531.

**MBA 535 LEGAL ISSUES IN BUSINESS RELATIONSHIPS (3-0-3)(S)**. Examines legal principles and laws in business relationships. Emphasis is on current issues and how the law impacts business decisions. Topics include business formation, employment, contracts, torts, and the role of the manager. Focus on practical issues and real-life applications. PREREQ: MAT 135, MBA 531.

**MBA 537 MANAGING PEOPLE IN ORGANIZATIONS (2-0-2)(F)**. Provides an opportunity to acquire knowledge and refine basic skills for managing the flow of employees into, through, and out of organizations. Human resource planning, employee recruitment, selection, performance coaching, and appraisal topics will be covered in the context of how policies and decisions support and further a company’s strategic goals. The impact of changing technology and demographics on “best” practices for managers dealing with employees will be discussed.

**MBA 538 ORGANIZATIONAL ISSUES (2-0-2)(S)**. Application of behavioral sciences principles and skills in an organizational setting. Emphasis is on an interactionist perspective (individual, group, and organizational dynamics), towards understanding behavior in organizations. Topics include team building, motivation, leadership, problem solving, negotiation, and self-management. The course is geared towards managers and the application of concepts to experience. PREREQ/COREQ: MBA 531.

**MHLTHSCI—MASTER OF HEALTH SCIENCE**

**MHLTHSCI 501 EPIDEMIOLOGY FOR HEALTH PROFESSIONALS (2-0-2)(F/S/SU)**. Study of the distribution and determinants of disease within human populations. PREREQ: Graduate standing.

**MHLTHSCI 504 (NURS 504) HEALTH CARE ECONOMICS, FINANCING AND DELIVERY (3-0-3)(F/S/SU)**. Differentiates health care economics, financing and payment systems as context for fiscal management and budgeting; examines health care delivery from organizational and operational perspectives, all of which are applied in writing proposals. May be taken for MHLTHSCI or NURS credit, but not both. PREREQ: Admission to Graduate Program in Master of Health Science or Nursing.

**MHLTHSCI 505 HEALTH SCIENCE RESEARCH METHODS (3-0-3)(F/S)**. Inquiry into the history of health science research and the scientific method. Research strategies and methodologies will be discussed. Students will each develop a prospectus of study. The course is to be completed before a project or thesis is undertaken. PREREQ: Completion of an undergraduate statistics course and admission to MHS program or PERM/INST.

**MHLTHSCI 510 ADVANCED ENVIRONMENTAL HEALTH (3-0-3)(F/S)**. As a review for the practicing professional and foundation for the recent graduate, discussion will focus on current issues in environmental health management. The course will provide an overview of basic concepts of water quality management, food protection, solid and hazardous waste management, vector and occupational hazard control and others, and will emphasize effective management and decision-making models. PREREQ: Admission to MHS program or PERM/INST.

**MHLTHSCI 515 OCCUPATIONAL SAFETY AND HEALTH (2-3-3)(F/S)**. Recognition, evaluation, and control of environmental health hazards or stresses (chemical, physical, biological) that may cause sickness, impair health, or cause significant discomfort to employees or residents of the community. The course is taught concurrently with an undergraduate section, with additional course work and/or projects required of graduate students. PREREQ: Admission to MHS program and one year each undergraduate physics and organic chemistry, or PERM/INST.

**MHLTHSCI 517 PRINCIPLES OF TOXICOLOGY (2-0-2)(F/S)**. An examination of the absorption, distribution, and excretion of toxicants in humans and health effects on target organs. Toxicologic evaluation, risk assessment, fate of hazardous substances in the environment and policies for the control of such substances will also be discussed. The course is taught concurrently with an undergraduate section, with additional course work and/or projects required of graduate students. PREREQ: Admission to MHS program and one year each undergraduate chemistry and biology for science majors, or PERM/INST.

**MHLTHSCI 518 ENVIRONMENTAL HEALTH LAW (2-0-2)(S)(Even years).** Various aspects of environmental and health protection law are discussed, including sources of regulatory authority, legal procedures, agency roles, and specific statutes.

**MHLTHSCI 520 HEALTH CARE SYSTEMS ORGANIZATION AND ADMINISTRATION (2-0-2)(F)**. Examines the history, organization, and effectiveness of United States health care and public health systems. Topics will include the underlying constructs of health, the structure of the industry, funding for health care, and the role of managers and personnel in the system. PREREQ: Admission to MHS program or PERM/PROGRAM DIRECTOR.

**MHLTHSCI 522 MANAGEMENT FOR HEALTH PROFESSIONALS (3-0-3)(F/S/SU)**. In-depth discussion of management strategies as they apply to healthcare, with emphasis on communication, program planning, organization, staff development, program coordination, and evaluation of results.

**MHLTHSCI 525 LEADERSHIP FOR HEALTH PROFESSIONALS (3-0-3)(S)**. An overview of various approaches to leadership, authority, motivation, adaptation, and organizational conflict as they relate to the health care supervisor’s role in accomplishing organizational goals and objectives.

**MHLTHSCI 529 MARKETING FOR HEALTH PROFESSIONALS (3-0-3)(F)**. Examination of marketing models used in health and health care including identification of consumer needs, market segmentation, and designing a balanced marketing program. PREREQ: Admission to MHS program or HSL Graduate Certificate program or PERM/INST.

**MHLTHSCI 530 DEVELOPING INSERVICE EDUCATION (3-0-3)(F/S/SU)**. Developing, presenting, and evaluating inservice and continuing education programs to professional peers and subordinates in traditional and non-traditional health care settings. Includes Development of Instructional Design Exercise (INDEX) and group presentations.

**MHLTHSCI 532 DEVELOPING HUMAN RESOURCES (3-0-3)(S)**. Developing and presenting in-service and/or continuing education programs to peers and subordinates in traditional and non-traditional health care settings.

**MHLTHSCI 535 ETHICS AND HEALTH POLICY (2-0-2)(S)**. Systematic examination of ethics as it relates to decision making in health policy. Discussion includes the moral issues of health care quality, right to life and right to death. PREREQ: Admission to MHS program or PERM/INST.

**MHLTHSCI 540 HEALTH INFORMATION MANAGEMENT (3-0-3)(S)**. The use of health information systems as a management tool in health policy and the impact of computer information systems on the structure and function of health care organizations, including administrative research to support decision making and problem solving using local and national computer data networks. PREREQ: Statistics and PERM/INST.

**MHLTHSCI 542 HAZARDOUS WASTE MANAGEMENT (2-0-2)(S)**. Historical, regulatory, and technical aspects of hazardous waste management, relating primarily to the requirements of the Resource Conservation and Recovery Act and the Comprehensive Environmental Reclamation, Compensation, and Liability Act.

**MHLTHSCI 543 (COUN 543) ASSESSING AND MANAGING ADOLESCENT SUBSTANCE ABUSE AND MENTAL HEALTH RISKS (3-0-3)(S)(Odd years).** Introduction to comprehensive adolescent risk assessment and treatment planning. Examination of current and available comprehensive adolescent assessments, current and available specialized assessments, report writing approaches and effective treatment processes. May be taken for COUN or MHLTHSCI credit, but not both. PREREQ: Graduate standing.

**MHLTHSCI 544 (COUN 541) ADDICTION AND THE FAMILY SYSTEM (3-0-3)(F/S)**. Examination of multigenerational impact of addiction (drugs, alcohol, work, religion, internet, gambling etc.) on the family system. In addition to dysfunctional roles developed to cope with addiction, class also
compares and contrasts communication strategies and parenting styles of unhealthy and healthy family systems. Risk and protective factors, stages of change, and continuum of care from prevention, intervention, treatment and aftercare are addressed. May be taken for COUN or MHLTHSCI credit, but not both. PREREQ: HLTHST 109 or COUN/MHLTHSCI 545 or PERM/INST.

MHLTHSCI 545 (COUN 545) FOUNDATIONS OF CHEMICAL DEPENDENCY (3-0-3)(F/S). An overview of the pharmacological and physiological effects of chemical dependency. Special attention is given to how substance abuse impacts brain chemistry, and how brain chemistry impacts substance abuse. May be taken for COUN or MHLTHSCI credit, but not both. PREREQ: PERM/INST.

MHLTHSCI 547 (COUN 547) CHEMICAL ADDICTIONS AND VIOLENCE PREVENTION (3-0-3)(SU). Introduction to professional, ethical, legal, and practical aspects of chemical addictions and violence prevention (primary and secondary) in the schools and other settings (e.g., adolescent treatment). Examination of current research and available curriculum models, current identification and intervention approaches, and effective prevention programming. Historical and social contexts (e.g., Safe and Drug Free Schools and communities initiative) also included. May be taken for COUN or MHLTHSCI credit, but not both. PREREQ: Graduate standing.

MHLTHSCI 548 COUNSELING TECHNIQUES FOR HEALTH PROFESSIONALS (3-0-3)(F). Topics to include interviewing and questioning techniques, client observation and influencing skills, and ethics. Special emphasis is given to confrontation techniques which can help break through the denial system of patients and help determine sound treatment plans.

MHLTHSCI 550 CURRENT ISSUES IN HEALTH POLICY (3-0-3)(F/S). Examines current issues in health care policy in the United States health care system. The structure, administration and financing of the health care system are reviewed and recent changes and their effects on cost, quality, and access to health care are discussed. Some attention is given to health policy issues in other countries as they influence and impact policy in the United States. PREREQ: Admission to MHS program or PERM/INST.

MHLTHSCI 552 (KINES 552) APPLIED STATISTICAL METHODS (3-0-3)(F,S). An introduction to statistical techniques utilized in the treatment of data. The techniques to be covered include measures of central tendency and variability, correlation measures, probability, analysis of variance, and regression analysis. May be taken for KINES or MHLTHSCI credit, but not both. PREREQ: Completion of an undergraduate statistics course and graduate standing in MHS or Kinesiology, or PERM/INST.

MHLTHSCI 555 PROGRAM EVALUATION IN HEALTH DELIVERY SETTINGS (3-0-3)(S). Topics include evaluation overview, models, and evaluative study objectives, methodological design, interpretation of data, and final report preparation. The course includes a thorough review of statistics and sampling as they apply to program evaluation methodologies. PREREQ: Undergraduate statistics, MHLTHSCI 505 and admission to MHS program, or PERM/INST.

MHLTHSCI 560 PUBLIC HEALTH DISASTER PREPAREDNESS PLANNING – RISK MANAGEMENT (3-0-3)(F)(Even years). Risk assessment or risk management methods in public health disaster preparedness planning will be presented in context of natural and human-caused disasters. The environmental, economic, and social consequences for communities will be studied. PREREQ: Graduate standing or PERM/INST.

MHLTHSCI 564 (COUN 544) SCREENING AND ASSESSMENT OF ALCOHOL AND DRUG PROBLEMS (3-0-3)(F). Emphasis on screening and assessment tool procedures for substance abuse. Application of current interventions and screening processes. Legal, social, ethical, and health implications will be investigated. May be taken for COUN or MHLTHSCI credit, but not both. PREREQ: HLTHST 109 or COUN/MHLTHSCI 545 or PERM/INST.

MHLTHSCI 565 (COUN 546) ASSESSMENT AND CASE MANAGEMENT OF ALCOHOL AND DRUG PROBLEMS (3-0-3)(S). Emphasis on case management techniques including legal, social, ethical, and health implications. May be taken for COUN or MHLTHSCI credit, but not both. PREREQ: MHLTHSCI 564 or COUN 544 or PERM/INST.

MHLTHSCI 566 COMPLEMENTARY AND ALTERNATIVE THERAPIES (2-0-2)(F/S). An exploration of the ethical, legal and policy issues surrounding non-conventional medical practices. Discussion on current research of efficacy and consumer acceptance will accompany clinical demonstrations of selected modalities, such as acupuncture and massage therapy.

MHLTHSCI 567 (COUN 567) CLINICAL SUPERVISION PRINCIPLES AND PRACTICE (1-0-1)(SU)(Odd years). Theory and skill development for practitioners who are or will be supervising interns and/or professionals in school, agency, and other settings. Topics include ethical issues in clinical supervision, models and best practices, documentation, and troubleshooting problematic dynamics. May be taken for COUN or MHLTHSCI credit, but not both. PREREQ: PERM/INST.

MHLTHSCI 568 (COUN 550) DIAGNOSES, ASSESSMENT AND TREATMENT PLANNING (3-0-3)(F). Examination of concepts of “mental disorders,” DSM classification systems, and the diagnostic benefits and diagnostic problems inherent in such systems. An introduction and overview of the major psychopathological syndromes of adolescents and adults (especially in the area of Co-morbidity of Substance Abuse/Dependence and other DSM IV diagnoses) to facilitate appropriate use of assessment—diagnostic—treatment links (including treatment planning). May be taken for COUN or MHLTHSCI credit, but not both. PREREQ: PERM/INST.

MHLTHSCI 570 (KINES 570) HEALTH PROMOTION (3-0-3)(F/S). Coverage of individual, interpersonal, and group/community theories of health behavior change, with emphasis on designing, implementing, and evaluating theory-based interventions. Other topics include studying the impact of diversity and social and economic factors on health, and improving the effectiveness of health behavior change programs for underserved groups. May be taken for KINES or MHLTHSCI credit, but not both.

MHLTHSCI 571 (COUN 571)(SOCWRK 571) FUNDAMENTALS OF HEALTH AGING (3-0-3)(F). Overview of gerontology presented by examining major issues related to aging. Content includes theories of aging, the impact of an aging population; and future implications at local, national, and international levels. May be taken for MHLTHSCI, COUN, or SOCWRK credit, but only from one department.

MHLTHSCI 572 (KINES 572) GRANT WRITING (3-0-3)(SU). Examination of the process of securing resources from external entities. Students will learn and apply a variety of techniques employed in proposal development and grant authorship. May be taken for MHLTHSCI or KINES credit, but not both.

MHLTHSCI 574 (KINES 574) HEALTH PROMOTION AND OPTIMAL AGING (3-0-3)(F)(Even years). Focus on promoting healthful behavior and quality of life among older adults. Application of theory, research, and practice to gerontological health promotion and wellness. May be taken for KINES or MHLTHSCI credit, but not both. May be taken for MHLTHSCI or KINES credit, but not both.

MHLTHSCI 576 HEALTH POLICY MAKING AND ISSUES IN AGING (3-0-3)(S)(Alternate years). Examination of the policy making process in relationship to health policies and services for the elderly at the national, state, and local levels. State and local policies and services will be studied to determine quality and effectiveness, identify gaps, and develop strategies to meet the increasing demands of a rapidly aging population.

MHLTHSCI 579 APPLICATIONS IN BIOSTATISTICS AND EPIDEMIOLOGY (3-0-3)(F/S). Application of advanced statistical and epidemiological methods in health sciences and public health. Emphasizes the role statistics and epidemiology plays in problem solving and research. PREREQ: HLTHST 480-480G or MHLTHSCI 501 or equivalent and MHLTHSCI 552 or equivalent.

MHLTHSCI 590 PRACTICUM/INTERNSHIP (0-V-3). MHLTHSCI 591 PROJECT (0-V-6). MHLTHSCI 593 THESIS (0-V-6).

MHLTHSCI 595 INDEPENDENT STUDY (0-V-3).

MHLTHSCI 596 SPECIAL TOPICS (0-V-3).

MHLTHSCI 598 SEMINAR IN HEALTH POLICY (2-V-2).
PSYC—PSYCHOLOGY
PSYC 331G THE PSYCHOLOGY OF HEALTH (3-0-3)(F/S). Principles that have emerged from the experimental analysis of behavior will be examined. The principles include, but are not limited to, operant and classical conditioning. The course will deal with applications of these principles to the understanding and change of phobias, obesity, smoking, alcoholism, aberrant behavior, and similar problems. PREREQ: PSYC 101.
PSYC 438G COMMUNITY PSYCHOLOGY (3-0-3)(F,S). Focuses on human and social problems in a systemic context. Primary prevention and community empowerment strategies employed for individual, community, and social benefit are emphasized.

PUBADM—PUBLIC ADMINISTRATION
PUBADM 500 ADMINISTRATION IN THE PUBLIC SECTOR (3-0-3) (F,S). Designed to introduce students to the broad field of public administration at the graduate level. The course surveys a number of important issues in contemporary public administration, including an emphasis on political, legal, economic, and social institutions and processes.
PUBADM 501 PUBLIC POLICY PROCESS (3-0-3)(S). Process of policymaking both within an agency and within the total governmental process, emphasizing policy and program planning, policy implementation and the value system of administrators. PREREQ: Admission to MHS program or PERM/PROG DIR.
PUBADM 502 ORGANIZATIONAL THEORY (3-0-3)(F/S). Theories of organization behavior and management, with special attention given to public sector organizations. Issues and problems related to the nonprofit sector will also be addressed. PREREQ: Admission to MHS program or PERM/PROG DIR.
PUBADM 504 PUBLIC BUDGETING AND FINANCIAL MANAGEMENT (3-0-3)(F/S). Determination of fiscal policy, budgeting processes, and governmental forms of budgeting. Consideration of fiscal policy and processes in various program areas. Emphasis on the interface between technical and political processes.
PUBADM 540 NATURAL RESOURCE AND ENVIRONMENTAL POLICY AND ADMINISTRATION (3-0-3)(F/S). Examines the major issues, actors, and policies in the area of natural resources. Topics include: land and water management and use, the natural resource policy environment, the roles and behaviors of natural resource agencies, and alternative natural resource policy futures.
PUBADM 541 ENVIRONMENTAL AND REGULATORY POLICY AND ADMINISTRATION (3-0-3)(F/S). Examines aspects of environmental regulatory politics and policy. Topics examined include the politics of regulation, pollution and waste policy, and intergovernmental environmental management.

SOC—SOCIOLGY
SOC 500 ADVANCED SOCIAL STATISTICS (3-0-3)(S). The methods of nonparametric statistics in the analysis of sociological data are examined in depth with application to research. PREREQ: SOC 101 and SOC 310 or equivalents as determined by consultation with department chair.
SOC 502 QUALITATIVE SOCIAL RESEARCH METHODS (3-0-3)(F). An intensive course in interpretive social science, covering the practice of fieldwork ethnography, the use of computers in qualitative research, techniques of qualitative data analysis, and the writing of qualitative research reports. PREREQ: Graduate standing.
SOC 512 SOCIAL DEMOGRAPHY (3-0-3)(F/S). Techniques and methods for analyzing population growth, trends, and movement as reflected in actuarial data, birth-death rate; mobility, fertility and fecundity as these affect the societal patterns, especially planning for human service programs.

Idaho State University Courses:
- MPH 601 Applications in Epidemiology
- MPH 602 Introduction to Biostatistics
- MPH 603 Applications in Biostatistics
- MPH 606 Environmental Health

Department of Nursing
Chair: Pamela Springer
Science Nursing, Room 107, Mail Stop 1840
Telephone: (208) 426-4143
FAX: (208) 426-1370
e-mail: nursing@boisestate.edu
http://nursing.boisestate.edu

Graduate Faculty: Jeri Bigbee, Ingrid Brudenell, Cynthia Clark, Shoni Davis, Margaret Downey, Pamela Gehrke, Abigail Gerding, Valeda Greenspan, Mary Hereford, Rosemary Macy, Sandra Nadelson, Nancy Otterness, Kathleen Reawy, Vivian Schrader, Pamela Springer, Leonie Sutherland, Dawn Weiler
Adjunct Graduate Faculty: Judy Farnsworth

Graduate Degrees Offered
- Master of Nursing
- Master of Science in Nursing

General Information

The Department of Nursing offers a graduate nursing program with two degree options: a Master of Science in Nursing (MSN) with a thesis that is foundational for doctoral level study and a Master of Nursing (MN) with a project for professional development. Both programs prepare the graduate for research and professional practice with a population health focus. A professional fee is charged to students each semester. The formula for clock to credit hours is 3:1 in laboratory courses.

Application and Admission Requirements

Students interested in the nursing program must first submit a graduate application to the Graduate College Admission and Degree Services by February 1. If approved, the applicant receives a certificate of admission to enroll in graduate courses at BSU. Acceptance into the Graduate College at Boise State University is a prerequisite to admission into the nursing program, but does not by itself guarantee admission into the nursing program. (The student is advised to consult the General Admission Policies section of the Graduate College catalog for additional details on admission.)

Applications are accepted on a rolling basis throughout the year. Available spaces, pending funding allocations, are first filled from the qualified applicant pool who met the published deadline. After the spaces are filled, any remaining qualified applicants will be placed on an alternate list. If all spaces are not filled from the pool who met the deadline, then qualified candidates will be accepted in the order of the date of their application.

Applicants admitted to the Graduate College are eligible to apply to the graduate program in the Department of Nursing. The following requirements must be met:
Health Sciences
Department of Nursing

Master of Nursing

Graduate Program Coordinator: Abigail A. Gerding
Program Information: Marian Graham
Science Nursing, Room 153, Mail Stop 1840
Telephone: (208) 426-4143
FAX: (208) 426-1370
e-mail: nursing@boisestate.edu
http://nursing.boisestate.edu

Degree Requirements

A minimum of 39 credits is required for graduation. The part-time program is designed to be completed in a minimum of three years to a maximum of seven years. The curriculum (39 credits) is comprised of 30 credits of required nursing courses, 6 credits of support courses and 3 credits of an elective.

<table>
<thead>
<tr>
<th>Master of Nursing</th>
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<tbody>
<tr>
<td><strong>Course Number and Title</strong></td>
</tr>
<tr>
<td>MHLTHSCI 552 Applied Statistical Methods OR KINES 552 Applied Statistical Methods</td>
</tr>
<tr>
<td>MHLTHSCI 579 Applications in Biostatistics and Epidemiology in Public Health</td>
</tr>
<tr>
<td><strong>Graduate Nursing Courses (30 credits)</strong></td>
</tr>
<tr>
<td>NURS 502 Foundation of Knowledge and Theory for Advanced Nursing</td>
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<tr>
<td>NURS 504 Health Care Economics, Finance and Delivery</td>
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<tr>
<td>NURS 508 Advanced Research and Scholarly Inquiry for Nursing</td>
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<td>NURS 512 Advanced Nursing Leadership in Health Care</td>
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<tr>
<td>NURS 520 Professional Role Development for Advanced Nursing in Population Health I</td>
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<tr>
<td>NURS 522 Concepts of Population Health</td>
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<tr>
<td>NURS 524 Population Health Assessment and Planning</td>
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<td>NURS 525 Population Health Assessment and Planning Laboratory</td>
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<td>NURS 526 Population Health Intervention and Evaluation</td>
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<td>NURS 527 Population Health Intervention and Evaluation Laboratory</td>
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<tr>
<td>NURS 528 Professional Role Development for Advanced Nursing in Population Health II</td>
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<tr>
<td>NURS 591 Project</td>
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</tbody>
</table>

Elective Course | 3 |

**TOTAL** | **39** |

1. Possess a baccalaureate degree in nursing from a nationally accredited nursing program;
2. Possess a valid, unencumbered R.N. license from within the United States;
3. GPA of 3.0 (on a 4.0 scale) computed for the last half of the undergraduate credits;
4. Completed, or planned for completion prior to beginning of fall semester, HLTHST 480 Epidemiology or comparable course and undergraduate statistics with a C or higher;
5. Submission of a Department of Nursing Graduate Program application with a non-refundable application fee to the Department of Nursing by February 1;
6. Submission of 2 reference forms from current employer or prior nursing faculty;
7. Submission of written statement following current guidelines.

Applicants should obtain current requirements from the Department of Nursing or its website.

Foreign students must comply with the following from the Commission of Graduates of Foreign Nursing Schools (CGFNS): For more information contact the Idaho State Board of Nursing

1. Credentials Review.
2. Qualifying examination of nursing knowledge.
3. English language proficiency exam.
Master of Science in Nursing

Graduate Program Coordinator: Abigail A. Gerding
Program Information: Marian Graham
Science Nursing, Room 153, Mail Stop 1840
Telephone: (208) 426-4143
FAX: (208) 426-1370
e-mail: nursing@boisestate.edu
http://nursing.boisestate.edu

Degree Requirements

A minimum of 39 credits is required for graduation. The part-time program is designed to be completed in a minimum of three years to a maximum of seven years. The curriculum (39 credits) is comprised of 30 credits of required nursing courses, 6 credits of support courses and 3 credits of an elective.

| Master of Science in Nursing |
|-------------------------------|------------------|
| **Course Number and Title**   | **Credits**      |
| MHLTHSCI 552 Applied Statistical Methods OR KINES 552 Applied Statistical Methods | 3 |
| MHLTHSCI 579 Applications in Biostatistics and Epidemiology in Public Health | 3 |

Graduate Nursing Courses (30 credits)

<table>
<thead>
<tr>
<th>Course Offerings</th>
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<tbody>
<tr>
<td>NURS 502 Foundation of Knowledge and Theory for Advanced Nursing</td>
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<tr>
<td>NURS 504 Health Care Economics, Finance and Delivery</td>
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<td>NURS 526 Population Health Intervention and Evaluation Laboratory</td>
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<td>NURS 527 Population Health Intervention and Evaluation Laboratory</td>
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<tr>
<td>NURS 528 Professional Role Development for Advanced Nursing in Population Health II</td>
</tr>
<tr>
<td>NURS 593 Thesis</td>
</tr>
<tr>
<td>Elective Course</td>
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<tr>
<td><strong>TOTAL</strong></td>
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</tbody>
</table>

Course Offerings

NURS—NURSING

NURS 502 FOUNDATION OF KNOWLEDGE AND THEORY FOR ADVANCED NURSING (3-0-3)(F/S). Critique, evaluate, and utilize conceptual and theoretical models in advanced nursing practice. Emphasis on linking theories with nursing. PREREQ: Admission to Graduate Program in Nursing or PERM/INST.

NURS 504 (MHLTHSCI 504) HEALTH CARE ECONOMICS, FINANCING AND DELIVERY (3-0-3)(F/S). Differentiates health care economics, financing and payment systems as context for fiscal management and budgeting; examines health care delivery from organizational and operational perspectives, all of which are applied in writing proposals. May be taken for NURS or MHLTHSCI credit, but not both. PREREQ: Admission to Graduate Program in Nursing or Master of Health Science Program or PERM/INST.

NURS 508 ADVANCED RESEARCH AND SCHOLARLY INQUIRY FOR NURSING (3-0-3)(F/S). Design and apply research methods for utilization in advanced nursing roles. PREREQ: NURS 502. PRE/Coreq: MHLTHSCI 502 or PERM/INST.

NURS 512 ADVANCED NURSING LEADERSHIP IN HEALTH CARE (2-0-2)(F/S/SU). Integrates and synthesizes leadership, educational and other theories and frameworks using simulated and/or real experiences to develop strategies for advanced nursing leadership roles in health care. PREREQ: NURS 508, NURS 509 or PERM/INST.

NURS 520 PROFESSIONAL ROLE DEVELOPMENT FOR ADVANCED NURSING IN POPULATION HEALTH I (1-0-1)(F/S). Introduction to advanced nursing roles, an overview of career opportunities and interactions with social, cultural, political, economic and other forces. PREREQ: Admission to Graduate Program in Nursing or PERM/INST.

NURS 522 CONCEPTS OF POPULATION HEALTH (3-0-3)(F/S). Examines the philosophy and framework for health promotion and disease prevention, health care delivery, effecting policy, and advanced nursing roles with diverse populations. PREREQ: Admission to Graduate Program in Nursing or PERM/INST.


NURS 527 POPULATION HEALTH INTERVENTION AND EVALUATION LABORATORY (0-6-2)(F/S). Applies theoretical frameworks with evaluation of evidence-based interventions and outcomes for health promotion and disease prevention with a specific population. PREREQ: NURS 525. PRE/Coreq: NURS 526.

NURS 528 PROFESSIONAL ROLE DEVELOPMENT FOR ADVANCED NURSING IN POPULATION HEALTH II (1-0-1)(F/S). Culminating seminar that integrates the new functions and activities of the advanced nursing role into professional practice. PREREQ: NURS 527.
College of Social Sciences and Public Affairs

Dean: Melissa Lavitt
Education Building, Room 722, Mail Stop 1900
Telephone (208) 426-3776
FAX (208) 426-4318
http://sspa.boisestate.edu

Associate Dean: L. Shelton Woods
Telephone (208) 426-1368

General Information
The mission of the College of Social Sciences and Public Affairs (SSPA) includes the following:

SSPA is the lead institution in the state of Idaho for providing education and scholarship in Public Affairs and Social Sciences. SSPA promotes excellence in teaching, research, and service to address major social and political issues, with an emphasis on urban issues. SSPA faculty and administration work to balance the theoretical and applied natures of our disciplines to best meet the needs of our student and community constituents. SSPA is committed to creating and advancing an understanding of the human experience, both past and present. Through research, teaching, and service the college provides unique insights regarding social conditions and public policy while engaging student learning and providing service to its local, regional, national, and global communities.

Faculty within the college teach a full range of social sciences classes, comprising twenty-four percent of Boise State University’s total offerings. They conduct research in areas of vital concern to public policy, human behavior, and the working of society. In addition, faculty provide leadership as expert consultants to local, state, and national groups and participate in public-service activities within the local community.

The departments of Communication, Criminal Justice, History, Public Policy and Administration, and the School of Social Work, prepare students for careers in public and private sectors by offering the following graduate programs:

- Master of Arts in Anthropology
- Master of Applied Anthropology
- Master of Arts in Communication
- Master of Arts in Criminal Justice
- Master of Arts in History
- Master of Applied Historical Research
- Master of Community and Regional Planning
- Master of Public Administration

- Master of Social Work, Two Year Program
- Master of Social Work, Advanced Standing
- Graduate Certificate in Community and Regional Planning
- Graduate Certificate in Conflict Management
- Graduate Certificate in Gerontological Studies

(See Interdisciplinary Programs)

The College also prepares students for careers in secondary education in history and the social sciences. In addition, the College’s location in the state’s population, business, and government hub provides outstanding opportunities for students to serve as interns in government agencies, the Idaho legislature, corporations, nonprofit agencies and numerous other places in the public and private sector.
Department of Anthropology

Chair: Mark Plew
Hemingway Western Studies Center, Room 55, Mail Stop 1950
Telephone (208) 426-3023
FAX (208) 426-4329
http://anthro.boisestate.edu/
e-mail: fbrigha@boisestate.edu

Graduate Faculty: Christopher Hill, Mark Plew, Margaret Streeter, John Ziker

Adjunct Graduate Faculty: Kendall House

Graduate Degrees Offered
- Master of Arts in Anthropology
- Master of Applied Anthropology

General Information
The Department of Anthropology offers two distinct graduate programs. The program leading to the Master of Arts in Anthropology degree emphasizes research and requires completion of a thesis. The program leading to the Master of Applied Anthropology degree is a professional science program and requires completion of a project representing exemplary professional practice. Students in both programs complete a core of advanced courses providing thorough exposure to modern theory and methods in anthropology.

Application and Admission Requirements
Application and Admission Procedures. Prospective students are encouraged to discuss their goals and interests with the graduate program coordinator. An applicant must follow the general application procedures for admission to a graduate program (see Graduate Admission Regulations). An applicant must also provide GRE General Test scores, a letter of intent (describing background, academic interests, and career goals), and two letters of recommendation from academic faculty. Once the file for an applicant is complete, it will be evaluated by a committee and an admission recommendation (regular, provisional, or denial) will be forwarded to the graduate dean. The dean will make the final admission decision and notify the applicant.

Conditions for Admission. Applicants must satisfy the minimum admission requirements of the Graduate College and must hold a baccalaureate degree in anthropology or a related field. Admission is competitive and is not guaranteed to any applicant.

Student Guidance
The graduate program coordinator will assign a temporary faculty advisor to each student prior to the first semester of enrollment. By the end of the first semester, the advisor, in consultation with the student, will initiate the appointment of a three-person supervisory committee that will assume responsibility for guidance.

Master of Arts in Anthropology

Graduate Program Coordinator: Mark Plew
Hemingway Western Studies Center, Room 55, Mail Stop 1950
Telephone (208) 426-3023
FAX (208) 426-4329
http://anthro.boisestate.edu/
e-mail: fbrigha@boisestate.edu

Degree Requirements
Master of Arts in Anthropology. Students must complete at least 31 credits distributed as shown in the degree requirements table. All students must complete at least one year of foreign language courses as a background requirement (language courses completed in an undergraduate program may fulfill this requirement); research in some geographic areas may require additional language skills. Based on guidance from their faculty advisory committee, students prepare for and successfully complete their preliminary examination. All requirements for the degree must be completed within a period of seven years.

<table>
<thead>
<tr>
<th>Master of Arts in Anthropology</th>
<th>Credits</th>
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<tbody>
<tr>
<td><strong>Core Sequence</strong></td>
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<tr>
<td>ANTH 501 Synchronic Methods in Anthropology</td>
<td>3</td>
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<tr>
<td>ANTH 502 Diachronic Methods in Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 503 History and Theory in Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 504 Quantitative Methods in Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>With the approval of the supervisory committee, a student may substitute a comparable 3-credit course for ANTH 504.</td>
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<tr>
<td><strong>Elective Courses</strong></td>
<td>12</td>
</tr>
<tr>
<td>Electives must be approved by the supervisory committee. Application of independent study to the elective requirement is limited to 6 credits. Pass/Fail credits, workshop credits, and practicum/internship credits are not applicable to elective requirements.</td>
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<tr>
<td><strong>Preliminary Examination</strong></td>
<td>1</td>
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<tr>
<td>ANTH 600 Assessment [Preliminary Examination]</td>
<td>1</td>
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<tr>
<td><strong>Culminating Activity</strong></td>
<td>6</td>
</tr>
<tr>
<td>ANTH 593 Thesis (minimum requirement)</td>
<td>6</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>31</td>
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</tbody>
</table>
Master of Applied Anthropology

Course Offerings

### ANTH—ANTHROPOLOGY

**ANTH 501 SYNCHRONIC METHODS IN ANTHROPOLOGY (3-0-3)(F)**
A reading-intensive survey of the major issues, methods, and findings relevant to anthropological studies of human societies. This course will focus on social processes and phenomena occurring at one time, including human-resource relationships, social, economic, and political organization and decision-making, micro-demographics, and spatial patterning of human groups.

**ANTH 502 DIACHRONIC METHODS IN ANTHROPOLOGY (3-0-3)(S)**
A reading-intensive survey of the major issues, methods, and findings relevant to anthropological studies of humans. This course will focus on social processes and phenomena occurring across time, including basic paleoanthropology, primatology, behavioral ecology, human evolutionary biology, and genetics.

**ANTH 503 HISTORY AND THEORY IN ANTHROPOLOGY (3-0-3)(F)**
A reading-intensive survey of history and theory in anthropology from classical times through the 20th century. A review of history and philosophy of science with emphasis upon innovations in 19th and 20th century theory relevant to current issues and debates.

**ANTH 504 QUANTITATIVE METHODS IN ANTHROPOLOGY (3-0-3)(S)**
Methods of multivariate statistics in the analysis of anthropological data.

**ANTH 505 QUALITATIVE METHODS IN ANTHROPOLOGY (3-0-3)(F/S)**
An introduction to qualitative methods research and analysis including in-depth interviewing, participant observation, focus groups, and discourse analysis.

**ANTH 520 QUATERNARY STRATIGRAPHY AND PALEOENVIRONMENTS (3-0-3)(F/S)(Alternate years)**
Global to site-specific scale review and evaluation of lithostratigraphic and biostratigraphic contexts focusing on the last three million years of human prehistory. Emphasis on integration of chronologic, biotic, geomorphic and isotopic evidence of environmental change on the human time-scale.

**ANTH 521 NORTH AMERICAN PALEOENVIRONMENTS (3-0-3)(F/S)**
(Alternate years). Examines the application of physical and biotic evidence to evaluate changing environments and their relationship to prehistoric human populations. Focus is on past environmental change in western North America placed within continental-scale and global-scale contexts.

**ANTH 522 HUNTER-GATHERER ETHNOARCHAEOLOGY (3-0-3)(F/S)**
(Alternate years). Examination of variability in adaptations by modern hunter-gatherer populations emphasizing subsistence, mobility, and social organization. Focus is on examination of lithic technology, faunal analysis, and site structure as sources of archaeological interpretation.

**ANTH 523 ADVANCED ARCHAEOLOGICAL FIELD METHODS (3-0-3)**
(SU). Emphasis upon developing research designs, decision-making, and in-field project management. Open to students with previous field experience and graduate work in archaeology. PREREQ: PERM/INST.

**ANTH 530 ADVANCED TOPICS IN EVOLUTIONARY ANTHROPOLOGY (3-0-3)(F/S)(Alternate years)**
This course provides the theoretical foundation for testing evolutionary hypotheses about human cultural variation, human physiological adaptations and social behavior, life-history evolution, marriage, reproduction, inheritance, and subsistence. The course provides a broad, empirical view of human behavioral evolution and ecology. PREREQ: PERM/INST.

**ANTH 531 ECONOMIC ANTHROPOLOGY (3-0-3)(F/S)(Alternate years)**
Designed as an advanced introduction to the origins and development of human sociality from the perspective of game theory and evolutionary biology. This course will review and discuss classic and new papers from anthropology, biology, economics, political science, and psychology. Issues to be explored include widespread pro-social behavior among humans, living in small vs. large groups, rank and status, sexual division of labor, and obstacles to building cooperation and peace on a number of social scales.

**ANTH 532 GAME THEORY AND HUMAN COOPERATION (3-0-3)(F/S)**
(Alternate years). Designed as an advanced introduction to the origins and development of human sociality from the perspective of game theory and evolutionary biology. This course will review and discuss classic and new papers from anthropology, biology, economics, political science, and psychology. Issues to be explored include widespread pro-social behavior among humans, living in small vs. large groups, rank and status, sexual division of labor, and obstacles to building cooperation and peace on a number of social scales.

**ANTH 533 CROSS-CULTURAL ISSUES IN AGING, DEATH, AND DYING: AN ANTHROPOLOGICAL APPROACH (3-0-3)(F/S)(Alternate years)**
This course is designed as an introduction to the variety of ways in which cultures in the United States and around the world approach the aging process, the treatment of those who are dying, and the various collective responses to death. The course relies on the examination of published work in the area of cross-cultural health care, gerontology, and ritual.

**ANTH 534 SEX AND GENDER: AN ETHNOLOGICAL APPROACH (3-0-3)(F/S)**
(Alternate years). This course will explore changing definitions and perceptions of sex and gender within a variety of cultures throughout the world. Biological determinism, homosexuality, transsexuality, and culturally determined concepts of male and female behavior are placed within the global discussion of gender that includes, but extends beyond, academic social theory.

**ANTH 580 SELECTED TOPICS IN ANTHROPOLOGY (F/S)**
Philosophical and theoretical issues in anthropology. Developments in methodology and technical advances in anthropological research. Seminar topics will vary.

**ANTH 600 ASSESSMENT [Preliminary Examination](F/S)**
Based on guidance from their faculty advisory committee, students prepare for and successfully complete their preliminary examination. (Pass/Fail.)
Department of Communication

Chair: Rick Moore
Communication Building, Room 102, Mail Stop 1920
Telephone (208) 426-3532
FAX (208) 426-1069
http://comm.boisestate.edu

Graduate Faculty: Mary Frances Casper, Peter Lutze, Ed McLuskie, Rick Moore, Dan Morris, Marty Most, Natalie Nelson Marsh, Heidi Reeder, Robert Rudd, Laurel Traynowicz, Peter Wollheim

Master of Arts in Communication

Graduate Program Coordinator: Peter Wollheim
Communication Building, Room 222, Mail Stop 1920
Telephone (208) 426-3532
FAX (208) 426-1069
e-mail: pollowhe@boisestate.edu

General Information
The Department of Communication offers a graduate program leading to the Master of Arts in Communication degree. The program prepares students to analyze and function within various levels of social relationships from interpersonal to family, organizational, and political arenas of contemporary life. Students develop a comprehensive theoretical background and conceptual skills required for transformative practices in a broad variety of contexts. Emphasis is placed on how questions of ethics, values and processes, and community inform knowledge of and about communication.

Application and Admission Requirements
Application and Admission Procedures. Prospective students should discuss their goals and interests with the graduate program coordinator prior to submitting an application. An applicant must follow the general application procedures for admission to a graduate program (see the Graduate Admission Regulations section of this catalog), and also provide a letter of intent (describing background, academic interests, and career goals), and two letters of recommendation from academic faculty. Once the file for an applicant is complete, it will be evaluated by the department graduate committee and the coordinator, and an admission recommendation (regular, provisional, or denial) will be forwarded to the graduate dean. The graduate dean will make the final admission decision and notify the applicant.

Conditions for Admission. Applicants must satisfy the minimum admission requirements of the Graduate College (see the Graduate Admission Regulations section of this catalog). The required baccalaureate degree must be in communication or a related field involving substantial course work in communication. Admission is competitive and it is possible that not all qualified applicants will be admitted to the program.

Student Guidance
By the end of the first semester, the graduate program coordinator, in consultation with the student, will initiate the appointment of a three-person supervisory committee that will assume responsibility for student guidance.

Degree Requirements

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Sequence</td>
<td></td>
</tr>
<tr>
<td>COMM 501 Communication Research and Writings</td>
<td>3</td>
</tr>
<tr>
<td>COMM 505 Theory and Philosophy of Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM 598 Seminar</td>
<td>1</td>
</tr>
<tr>
<td>Elective Courses</td>
<td></td>
</tr>
<tr>
<td>(Choose from the following courses to total 12-18 credits)</td>
<td></td>
</tr>
<tr>
<td>COMM 506 Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM 507 Organizational Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM 508 Media Theory and Practice</td>
<td>3</td>
</tr>
<tr>
<td>COMM 509 Legal and Ethical Aspects of Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM 510 Community, Communication and Politics</td>
<td>3</td>
</tr>
<tr>
<td>COMM 511 Critical Theory</td>
<td>3</td>
</tr>
<tr>
<td>COMM 512 Culture and Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM 513 Public Relations</td>
<td>3</td>
</tr>
<tr>
<td>COMM 514 Media Writing</td>
<td>3</td>
</tr>
<tr>
<td>COMM 580 Selected Topics: Advanced Theory and Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>COMM 581 Selected Topics: Advanced Research and Writing</td>
<td>3</td>
</tr>
<tr>
<td>COMM 582 Selected Topics: Advanced Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM 583 Selected Topics: Advanced Organizational Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM 584 Selected Topics: Advanced Media Theory and Practice</td>
<td>3</td>
</tr>
<tr>
<td>COMM 585 Selected Topics: Advanced Culture and Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM 586 Selected Topics: Advanced Studies in Critical Theory</td>
<td>3</td>
</tr>
<tr>
<td>COMM 587 Selected Topics: Advanced Studies in Globalization</td>
<td>3</td>
</tr>
<tr>
<td>COMM 588 Selected Topics: Advanced Cross-Cultural Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM 589 Selected Topics: Advanced Public Relations</td>
<td>3</td>
</tr>
<tr>
<td>Other Elective Courses</td>
<td></td>
</tr>
<tr>
<td>Choose from the following courses as necessary to reach the total credit requirement:</td>
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<tr>
<td>COMM 590 Practicum/Internship</td>
<td>3-6</td>
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<tr>
<td>COMM 595 Reading and Conference</td>
<td>3-6</td>
</tr>
<tr>
<td>COMM 596 Independent Study</td>
<td>3-6</td>
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<tr>
<td>Culminating Activity</td>
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</tr>
<tr>
<td>COMM 593 Thesis</td>
<td>6</td>
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<tr>
<td>TOTAL</td>
<td>31</td>
</tr>
</tbody>
</table>
Elective Substitutions. A student may substitute up to three courses totaling no more than 9 credits to meet the elective requirements. These courses may be from departments outside of the Department of Communication. Approval is required by the supervisory committee and the graduate program coordinator, and the substitutions must be consistent with all applicable regulations of the Graduate College.

Course Offerings

COMM—COMMUNICATION

COMM 501 COMMUNICATION RESEARCH AND WRITING (3-0-3)(F). A critical overview of leading theoretical and research traditions in communication studies, with special emphasis on epistemological issues. Examines the application of research to professional environments, civil society and other contexts.

COMM 505 THEORY AND PHILOSOPHY OF COMMUNICATION (3-0-3)(S). An overview of communication studies. Emphasizes the metaphysical, epistemological, ethical and aesthetic dimensions of various schools of communication thought.

COMM 506 INTERPERSONAL COMMUNICATION (3-0-3)(F). Examines the range and variety of theories and research in areas such as attraction, relational development and maintenance, friendship and courtship, inter-racial and same-sex relationships, and relationship decline.

COMM 507 ORGANIZATIONAL COMMUNICATION (3-0-3)(S). Survey of contemporary theory and research as applied to the study of all types of organizations. Explores the role of communication in the creation and constitution of organizational reality.

COMM 508 MEDIA THEORY AND PRACTICE (3-0-3)(F). Examines a broad range of theoretical perspectives on media institutions, practices, and effects. Emphasis is given to the implications of media theory and research for citizens, members of civic and professional organizations who work with media, as well as media practitioners. Topics may include theory and research regarding the media’s role in education, persuasion, entertainment, socialization, social structure, politics, psychological effects, and business.

COMM 509 LEGAL AND ETHICAL ASPECTS OF COMMUNICATION (3-0-3)(S). Advanced examination of ethical and legal issues facing practitioners and the public. Topics may include First and Fourth Amendment, the right to privacy, censorship, libel and slander, copyright, and media and national security considerations.

COMM 510 COMMUNICATION, COMMUNITY AND POLITICS (3-0-3)(F). Concentrates on the intersections among theory and practice in communication studies, community organization and political science. It looks at all three in terms of the exercise of power, and the conflicts between autonomy and control in a range of social settings.

COMM 511 CRITICAL THEORY (3-0-3)(S). A seminar on the work of the Frankfurt School and its role in the communication theory of society. Special emphasis on critical epistemology as social theory, the political economy of culture, and discourses growing out of twentieth-century and twenty-first century debates over modernity.

COMM 512 CULTURE AND COMMUNICATION (3-0-3)(F). Advanced studies in current issues and theoretical perspectives in the study of rhetoric, communicative relationships, the art and performance of communication, and intercultural communication. Topics include the history of the terms “culture” and “communication,” and the evolution of theoretical perspectives on both terms.

COMM 513 PUBLIC RELATIONS (3-0-3)(F). Advanced studies in public information, investor relations, public affairs, corporate and nonprofit communication, marketing or customer relations, with emphasis on how public relations also helps shape organizations and the way they work. Topics include the history of public relations and the role of research, feedback and evaluation in the design of effective campaigns and messages in an information-rich society.

COMM 514 MEDIA WRITING (3-0-3)(S). An intensive examination of the theory and practice of information-gathering and writing techniques for print and broadcast media. Subjects include strategic and technical writing, business writing, documentation, speeches, and integrating the written word with visual design.

SELECTED TOPICS

COMM 580 ADVANCED THEORY AND PHILOSOPHY
COMM 581 ADVANCED RESEARCH AND WRITING
COMM 582 ADVANCED INTERPERSONAL COMMUNICATION
COMM 583 ADVANCED ORGANIZATIONAL COMMUNICATION
COMM 584 ADVANCED MEDIA THEORY AND PRACTICE
COMM 585 ADVANCED CULTURE AND COMMUNICATION
COMM 586 ADVANCED STUDIES IN CRITICAL THEORY
COMM 587 ADVANCED STUDIES IN GLOBALIZATION
COMM 588 ADVANCED CROSS-CULTURAL COMMUNICATION
COMM 589 ADVANCED PUBLIC RELATIONS
COMM 590 PRACTICUM
COMM 591 PROJECT (0-V-3)
COMM 593 THESIS (0-V-3)
COMM 594 WORKSHOP
COMM 595 READING AND CONFERENCE
COMM 596 INDEPENDENT STUDY
COMM 597 SPECIAL TOPICS
COMM 598 GRADUATE SEMINAR (1-0-1)
Department of Criminal Justice

Chair: Andrew Giacomazzi
Library Building, Room 166, Mail Stop 1955
Telephone (208) 426-4114
FAX (208) 426-4371
http://cja.boisestate.edu
e-mail: sraney@boisestate.edu

Graduate Faculty: Jeremy Ball, Michael Blankenship, Lisa Growette Bostaph, Andrew Giacomazzi, Craig Hemmens, Norma Jaeger, Robert Marsh, David Mueller, Mary Stohr, Anthony Walsh, Ilhong Yun

Adjunct Graduate Faculty: Christine Isaacs

Master of Arts in Criminal Justice

Graduate Program Coordinator: Lisa Growette Bostaph
Library Building, Room 166F, Mail Stop 1955
Telephone (208) 426-3886
e-mail: LisaBostaph@boisestate.edu

General Information

The master’s degree in Criminal Justice is designed to provide a foundation in applied research and theory, in substantive areas of criminal justice activity, and focused scholarship on issues of importance in Idaho. Curricula are organized into two sections. The first section, called the Foundation Series, is a set of core classes that will provide students with the intellectual skills needed for the study of more complex material. The second section, the Seminar Series, promotes the development of scholarship in particular substantive areas in criminal justice. Students will also be required to take electives and write either a project or a thesis.

Admission Requirements

To be considered for regular status as a graduate student in the Department of Criminal Justice, students must meet general Graduate College requirements and the following department requirements:

1. An undergraduate degree in Criminal Justice or related social or behavioral science with at least a 3.0 average is required for admission to graduate study.
2. Completion of an undergraduate statistics course.
3. CJ 101 Introduction to Criminal Justice or its equivalent (required for all entering students).
4. Graduate Record Exam (GRE) scores forwarded to Graduate Admissions and Degree Services.

Application Requirements

Application for admission to the Criminal Justice graduate program may be made at any time. However, it is recommended that the prospective student make application to the Graduate Admissions Office at least one full semester prior to expected enrollment. At that time the student will pay the application fee, complete an application form and arrange to have transcripts for all schools of higher education previously attended sent directly to the Boise State University Graduate Admissions Office.

Applicants must also send directly to the Department of Criminal Justice a Statement of Purpose explaining the student’s reasons for seeking admission and what they hope to achieve, and three letters of recommendation from individuals competent to judge the student’s likelihood of success in graduate studies. It is recommended that the applicant also schedule an interview with the Criminal Justice Graduate Program Coordinator.

The Department of Criminal Justice will take no action on the application until all of the above materials have been received.

Applicants who wish to enroll in the Fall semester should complete applications by May 1 (November 1 for the Spring semester).

Degree Requirements

Students are required to complete 33 hours of graduate study at the 500 level and above for the Master of Arts degree in Criminal Justice. Students complete 15 credits from CJ 501, CJ 502, CJ 503, 504, and CJ 505. Students are also required to elect at least 9 additional credit hours from among criminal justice courses in the Seminar Series. A master’s thesis or project must be completed prior to the award of the degree. Six hours of graduate study will be awarded upon successful completion of the thesis and three for completion of the project. Elective credit must be approved and be consistent with the student’s course of study. Students may pursue up to three hours of study in other approved graduate classes in or outside the department if they select the thesis option, and six if they select the project option. Consistent progress toward the degree and maintenance of a cumulative 3.0 average are required for continuation in the program. Upon completion of the thesis or project and course work, an oral examination is required of all students and will be administered by the student’s thesis or project committee. An overall grade point average of 3.0 is required for graduation.

<table>
<thead>
<tr>
<th>Master of Arts in Criminal Justice</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Foundation Series</strong></td>
<td></td>
</tr>
<tr>
<td>The following core courses are required of all students. It is recommended that these courses be taken prior to other graduate work.</td>
<td>15</td>
</tr>
<tr>
<td>CJ 501 Crime and Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CJ 502 Organization and Management of Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CJ 503 Criminal Justice Research</td>
<td>3</td>
</tr>
<tr>
<td>CJ 504 Statistics for Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CJ 506 Theories of Crime</td>
<td>3</td>
</tr>
<tr>
<td><strong>Seminar Series</strong></td>
<td></td>
</tr>
<tr>
<td>Students are required to complete nine credits from the following list of courses. It is recommended that core courses be completed prior to enrolling in seminar series courses.</td>
<td>9</td>
</tr>
<tr>
<td>CJ 505 Law and Social Control</td>
<td>3</td>
</tr>
<tr>
<td>CJ 507 Issues in Contemporary Policing</td>
<td>3</td>
</tr>
<tr>
<td>CJ 508 The Legal Process</td>
<td>3</td>
</tr>
<tr>
<td>CJ 509 Juvenile Justice</td>
<td>3</td>
</tr>
<tr>
<td>CJ 510 Punishment and Corrections</td>
<td>3</td>
</tr>
<tr>
<td>CJ 511 Community Corrections</td>
<td>3</td>
</tr>
<tr>
<td>CJ 512 Gender and Justice</td>
<td>3</td>
</tr>
</tbody>
</table>

— continued —
### Course Offerings

#### CJ—CRIMINAL JUSTICE

**FOUNDATION COURSES**

**CJ 501 CRIME AND CRIMINAL JUSTICE (3-0-3)** (F). This class locates the profession of criminal justice within historical, theoretical, and political perspectives. The class will focus on contemporary theoretical perspectives, including sociological, social-psychological, biosocial, cultural, genetic, linguistic, and evolutionary. The nature and scope of the discipline are defined through the discussion of the relationships among theory, policy, and practice.

**CJ 502 ORGANIZATION AND MANAGEMENT OF CRIMINAL JUSTICE (3-0-3)** (S). The structures, operations, and functions of criminal justice organizations are analyzed. Issues within these areas are approached with attention to their cultural, social, and political implications. The relationship between formal and informal structures and their social, political and legal environment is examined.

**CJ 503 CRIMINAL JUSTICE RESEARCH (3-0-3)** (F). Basic methods of quantitative and qualitative research and their application to the field. The relationship among theory, research, and social policy. The development and interpretation of research reports.


**CJ 506 THEORIES OF CRIME (3-0-3)** (F). Major explanations of crime and its control. Efforts toward an integration of existing approaches are explored and consideration of the development of general theory is discussed.

#### SEMINAR SERIES

**CJ 505 SEMINAR: LAW AND SOCIAL CONTROL (3-0-3)** (F). A focus on the nature of law and legal institutions and the relationships between law and other forms of social control. Theory and research on the development of law and its implementation at various stages of the legal process is reviewed.

**CJ 507 SEMINAR: ISSUES IN CONTEMPORARY POLICING (3-0-3)** (S). In-depth consideration of issues affecting policing today. Police organization, management and leadership, policy formulation, community policing and related issues are among the topics considered. Particular attention will focus on the role of police officers in a changing society.

**CJ 508 SEMINAR: THE LEGAL PROCESS (3-0-3)** (F). Consideration of specific aspects of criminal adjudication, including prosecution and defense, bail determination, plea-bargaining, jury decision-making, and alternative sentencing practices. Specific subject matter will vary by semester.

**CJ 509 SEMINAR: JUVENILE JUSTICE (3-0-3)** (F). A detailed examination of the historical development and current practices of juvenile courts and juvenile correctional institutions. Research on program evaluation is presented, with an emphasis on developments in delinquency theory as related to practice.

**CJ 510 SEMINAR: PUNISHMENT AND CORRECTIONS (3-0-3)** (S). An in-depth study of issues related to the philosophy and practice of punishment and corrections. Topics include correctional theory, the prison and jail environment, work and rehabilitation programs, corporal punishment, parole, overcrowding, capital punishment, and alternatives to imprisonment.

**CJ 511 SEMINAR: COMMUNITY CORRECTIONS (3-0-3)** (S). An assessment of contemporary trends in community corrections, with a particular focus on considerations of effectiveness. This class will focus on the types of community corrections options available, program characteristics, and implications for broader correctional policy. The contribution of rehabilitative and deterrent philosophies to corrections will provide a backdrop to a consideration of the diverse contemporary perspectives on community corrections.

**CJ 512 SEMINAR: GENDER AND JUSTICE (3-0-3)** (F). An exploration of the theory, research, and practice related to women’s involvement in the justice system in the United States. Analysis will be directed toward the various roles and treatment of women as offenders, victims/survivors, and practitioners in the system.

**CJ 520 GOVERNOR’S CLASS (3-0-3)** (S). This class focuses on legislative policy in Idaho as it pertains to crime and criminal justice. This class will be a forum for the application of practical knowledge of policy theory and evaluation to crime law in Idaho. Legislative policy makers will be invited to present their views on crime and criminal justice. The process of preparing and legislating crime bills will be discussed. The Governor will be invited to provide a presentation and engage the class in discussion each semester the class is offered.

**CJ 521 CRIMINAL JUSTICE ISSUES AND POLICY IN IDAHO (3-0-3)** (S). Problem-solving and policy implementation in Idaho. Executives across the Criminal Justice field in Idaho will be invited to discuss issues they have confronted and strategies they have used to resolve these issues. This class will not focus on a particular field, but instead seek professionals from different components of the system.

**CJ 522 JUVENILE OFFENDERS, CRIME, AND CRIMINAL JUSTICE IN IDAHO (3-0-3)** (F). Examination of current processes in juvenile justice, policy, probation, and utilization of community based resources in Idaho. Emphasis will be placed on understanding issues and policy applications at the local and state level. **PREREQ:** CJ 509 or CJ 512.

**CJ 523 RURAL CRIMINAL JUSTICE (3-0-3)** (F). This class addresses the problems of criminal justice in a rural setting. This class is developed with the recognition that criminal justice in Idaho has emerged to deal with crime in the sparsely populated intermountain west. This class will provide perspective on the organization and delivery of criminal justice and the types of crime confronted by small municipal and Sheriff departments, and how those problems are being met locally.

**CJ 527 WHITE-COLLAR CRIME (3-0-3)** (F/S). Nature and extent of upper-class criminality, including measures, reporting, and categories. Emphasis on organizational, occupational, and governmental crime. Functions of social control, punishment, and regulatory agencies examined.

**CJ 528 THE DEATH PENALTY IN AMERICA (3-0-3)** (F/S). Historical, philosophical, and empirical examination of capital punishment with an emphasis on race/ethnicity, class, gender, and religion. Legal issues including jury-decision making, ineffective legal representation, cruel and unusual punishment, mental illness, wrongful conviction, costs, international law, and other policy issues examined. Living and working on death row, methods of execution, and philosophies of punishment explored.

**CJ 562 CONTEMPORARY ISSUES IN CRIMINAL COURTS (3-0-3)** (F/S). Study of the major contemporary issues facing the criminal court system at local, state, and federal levels of government. Topics include, but are not limited to, problem-solving courts (drug court, mental health court, etc.), determinants of court processing decisions, and impact of legal decisions on courtroom behavior. Topics considered from historical, legal, philosophical, sociological and psychological perspectives.

**CJ 564 CONTEMPORARY ISSUES IN OFFENDER REHABILITATION (3-0-3)** (F/S). Study of the major contemporary issues facing the treatment of offenders at the local, state, and federal levels of government. Topics include, but are not limited to, treatment-centered programming and advances in rehabilitation of high-risk offenders.

**CJ 591 PROJECT (0-0-V)**.

**CJ 593 THESIS (0-0-6)** (F/SU).

**CJ 595 READING AND CONFERENCE (3-0-3)** (F/SU).

**CJ 596 INDEPENDENT STUDY (3-0-3)** (F/SU).
Department of History

Chair: Nicholas Miller
Library Building, Room 192, Mail Stop 1925
Telephone (208) 426-2129
FAX (208) 426-4058
http://history.boisestate.edu
e-mail: historygradbsu@boisestate.edu

Graduate Faculty: Barton Barbour, John Bieter, Lisa Brady,
Peter Buhler, Nicanor Dominguez, Jill Gill, Errol Jones,
Joanne Klein, Lynn Lubamersky, Lisa McClain, Nicholas Miller,
Charles Odahl, Sandra Schackel, Todd Shallat, L. Shelton Woods,
Michael Zirinsky

Adjunct Graduate Faculty: David Walker

Graduate Degrees Offered
- Master of Arts in History
- Master of Applied Historical Research

General Information

The Master of Arts in History and the Master of Applied Historical Research degrees prepare students for work in the field of history. The History Masters programs are based upon a solid, committed faculty and multiple resources. With fifteen permanent and many adjunct faculty, the department of history offers courses in a wide variety of topics in the fields of non-western, United States, and European history. Graduate faculty are deeply involved in research and writing in their respective major fields (for more information on the faculty, see the department web page: http://history.boisestate.edu). The department of history encourages a collegial atmosphere in which students and faculty work closely together. Its main goal is to prepare students for further study or for a successful career in history. Besides a faculty rich in its diversity and talents, the location of the university in the capital city of Idaho gives students access to the State Archives, Idaho State Historical Museum, the state’s Law Library, the Survey Research Center, the Frank Church Archive, and other research facilities. Boise State University’s Albertsons library has a collection of almost 550,000 bound volumes and periodicals and subscribes to more than 4,900 serials. It is also a selective US Government and Canadian document depository, as well as an Idaho State depository. The interlibrary loan system makes the holdings of other excellent collections accessible to Boise State students. Several large corporations with home offices in Boise have opened their archives to students and faculty doing research on department-supported topics.

Advising of Incoming Graduate Students: The coordinator of graduate studies in history will act as temporary advisor for all newly admitted students. The student will establish a supervisory committee as soon as possible, normally during the first semester enrolled. The committee chair will act as advisor and thesis or project director. Other members of the committee will be chosen by the student and his or her advisor. The entire program leading to the degree will be planned by the student in conjunction with his or her supervisory committee.

Application and Admission Requirements

Application Procedures: The history department accepts new candidates for the fall or spring semesters. To be admitted for the fall semester and be considered for departmental funding, applications must be received by January 15. To be admitted for fall without funding, the application deadline is April 1. Those seeking to start in spring semester must submit applications by September 15. By these deadlines, the student will need to have deposited the following with the Graduate College: the application fee, an application form, and transcripts from all schools of higher education previously attended.

Applicants must also send directly to the coordinator of graduate studies in history a letter of application explaining why the student wishes to be admitted and what area of research they hope to pursue, a sample of the applicant’s writing skills (e.g., seminar paper, senior thesis, or published article), and at least two letters of recommendation from persons competent to judge the applicant’s potential for graduate study in history. Students also must provide their Graduate Record Examination (GRE) scores. To be considered for a Graduate Assistantship, the GRE scores must be received by January 15. One year of a foreign language is required to graduate; the language credits will not count towards the degree. Until a student completes the language requirement, s/he will retain provisional status. The History Department can take no action on the application until all of the above materials have been received.

Admission Requirements: Minimum requirements include a bachelor’s degree in history, or its equivalent, from an accredited institution or a strong history background (more than 20 semester hours) within their undergraduate program. Minimum standards for admission with regular status to the history graduate program include a minimum GPA of 3.00 with 3.20 for the last two years of undergraduate study. Students not meeting these minimum requirements for admission with regular status may be granted provisional status.
Master of Arts in History

Coordinator of Graduate Studies: Jill Gill
Library Building, Room 180, Mail Stop 1925
Telephone (208) 426-2129
e-mail: historygradbsu@boisestate.edu

Master of Arts in History: The Master of Arts in History prepares students to work as researchers or to continue in history doctoral programs. It is best suited for those seeking a career in an academic-related field. The degree culminates with the completion of a thesis, which is a written examination of a historical topic, based on primary source research, and defending a hypothesis that is original and compelling. The topic and scope of the thesis will be determined by the student in consultation with the advisory committee.

Degree Requirements

<table>
<thead>
<tr>
<th>Master of Arts in History</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 500 The Nature of History</td>
<td>3</td>
</tr>
<tr>
<td>HIST 501 The Study of History</td>
<td>3</td>
</tr>
<tr>
<td>Approved History Electives</td>
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<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>Approved History Electives</td>
<td>12</td>
</tr>
<tr>
<td>Approved Electives Outside of History</td>
<td>9</td>
</tr>
<tr>
<td>HIST 593 Thesis</td>
<td>6</td>
</tr>
<tr>
<td>TOTAL</td>
<td>33</td>
</tr>
</tbody>
</table>

Note: One year of foreign language is required for graduation; these credits do not count towards the required 33 credits for the degree.

Master of Applied Historical Research

Coordinator of Graduate Studies: Jill Gill
Library Building, Room 180, Mail Stop 1925
Telephone (208) 426-2129
e-mail: historygradbsu@boisestate.edu

Master of Applied Historical Research: The Masters in Applied Historical Research gives students the opportunity to combine an existing expertise with the study of history. Possible emphases include public history, urban affairs, the environment, policy studies (local, state, or international), and applied cultural studies. This is a professional degree aimed at those seeking a career in some area of public history (e.g. museums, national parks, archives, government or non-profit research). The applied research project is the cumulative activity for the Master of Applied Historical Research. All projects, regardless of the medium, must include a substantial written portion of no less than 5,000 words. The written portion must place the research in appropriate scholarly context. It must demonstrate scholarly competence in writing, research, analysis, and historical documentation.

Degree Requirements

<table>
<thead>
<tr>
<th>Master of Applied Historical Research</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 500 The Nature of History</td>
<td>3</td>
</tr>
<tr>
<td>HIST 501 The Study of History</td>
<td>3</td>
</tr>
<tr>
<td>HIST 502 Topics in Applied Historical Research</td>
<td>3</td>
</tr>
<tr>
<td>Approved History Electives</td>
<td>18</td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>Approved History electives</td>
<td>6</td>
</tr>
<tr>
<td>Approved internships and/or non-history electives</td>
<td>0-12</td>
</tr>
<tr>
<td>HIST 591 Project</td>
<td>6</td>
</tr>
<tr>
<td>TOTAL</td>
<td>33</td>
</tr>
</tbody>
</table>

Note: One year of foreign language or a technical equivalent is required for graduation; these credits do not count towards the required 33 credits for the degree.

Course Offerings

**HIST—HISTORY**

HIST 500 THE NATURE OF HISTORY (3-0-3)(F). Analysis of what historians do and how the discipline has developed over time. Examines the major controversies over method and interpretation. Oral and written participation and a major paper are required. PREREQ: Admission to History graduate program or PERM/INST or PERM/GRAD COORD.

HIST 501 THE STUDY OF HISTORY (3-0-3)(S). Critical analyses of historical scholarship and source materials on a selected broad topic in global history. Emphasis placed upon honing professional skills, class discussion, historiography, and the nature of historical research. PREREQ: Admission to History graduate program or PERM/INST or PERM/GRAD COORD.

HIST 502 APPLIED HISTORICAL RESEARCH (3-0-3)(S). A seminar on the application of historical thinking and methods in foreign policy, business history, city planning, historic preservation, environmental assessment, library and archives, historic sites, and museums. PREREQ: Admission to the graduate program or PERM/CHAIR.

HIST 580 SELECTED TOPICS: GRADUATE SEMINAR IN EUROPEAN HISTORY (3-0-3)(F/S/SU). Critical analyses of source materials and historical scholarship on topics of restricted scope in European History. Emphasises placed upon student reports, class discussions, individual research on relevant topics and the writing of historical papers. PREREQ: Admission to History graduate program or PERM/INST.

HIST 581 SELECTED TOPICS: GRADUATE SEMINAR IN THE HISTORY OF THE AMERICAS (3-0-3)(F/S/SU). Critical analyses of source materials and historical scholarship on topics of restricted scope in Canadian, U.S., or Latin American History. Emphasises placed upon student reports, class discussions, individual research on relevant topics and the writing of historical papers. PREREQ: Admission to History graduate program or PERM/INST.

HIST 582 SELECTED TOPICS: GRADUATE SEMINAR IN NON-WESTERN HISTORY (3-0-3)(F/S/SU). Critical analyses of source materials and historical scholarship on topics of restricted scope in African, Asian, or Middle Eastern History. Emphasises placed upon student reports, class discussions, individual research on relevant topics and the writing of historical papers. PREREQ: Admission to History graduate program or PERM/INST.

HIST 583 SELECTED TOPICS: THEMES IN HISTORY (3-0-3)(F/S/SU). Critical analyses of historical scholarship and source materials on a selected topic in history. Emphasises placed upon analyzing scholarship, class discussion, and the nature of historical research. Intensive reading and writing. May be repeated for credit. PRE/Coreq: HIST 500 or Admission to History graduate program or PERM/INST.

Refer to the “University-wide Graduate Courses” section in this catalog for additional course offerings.
Department of Public Policy and Administration

Chair: Stephanie Witt
Public Affairs and Art West Building, Room 127, Mail Stop 1935
Telephone (208) 426-1476
FAX (208) 426-4370
http://ppa.boisestate.edu

Graduate Faculty: Les Alm, Ross Burkhart, Elizabeth Fredericksen, John Freemuth, Greg Hill, Richard Kinney, Susan Mason, Suzanne McCorkle, Gary Moncrief, Greg Raymond, David Solan, Stephen Wilson

Adjunct Graduate Faculty: Diane Kushlan, Janet Mills, Cathy Silak, James Weatherby (Emeritus), William Whelan, Stephen Wilson, Jeffrey Youtz

Graduate Degrees Offered
- Master of Community and Regional Planning
- Master of Public Administration
- Graduate Certificate in Community and Regional Planning
- Graduate Certificate in Conflict Management

Master of Community and Regional Planning

Program Start Date to be Determined

Interim Coordinator: Susan Mason
Public Affairs and Art West Building, Room 126F, Mail Stop 1935
Telephone (208) 426-2658
FAX (208) 426-4370
e-mail: mcrp@boisestate.edu

General Information

The Master of Community and Regional Planning (MCRP) will be offered through the Department of Public Policy and Administration in the College of Social Sciences and Public Affairs in cooperation with other academic departments within the university. Boise State University is entrusted with the statewide mission in social sciences and public affairs, is located in the state capital and largest metropolitan area, and is charged by its strategic plan with community engagement. The MCRP program connects the university’s scholarly expertise in public policy, the environment, land use, transportation, and economic policy-making with the professional expertise of planning from Boise and the surrounding area.

The Master of Community and Regional Planning (MCRP) is designed to serve both students interested in a career as a professional planner as well students interested in a research-based and/or academic career in planning who will be seeking preparation to pursue a doctoral degree at a major university. The curriculum provides both the theoretical dimensions as well applied coursework and practical project-based experiences. The Master of Community and Regional Planning has four emphasis areas: 1) Environmental and Natural Resources, 2) Land Use and Transportation, 3) Economic Development and 4) Housing, Social and Community Development.

Application and Admission Requirements

Students interested in the MCRP program must first submit a graduate application to the Graduate Admission and Degree Services office. If approved, the applicant receives a certificate of admission to enroll in courses at Boise State. This certificate of admission is a prerequisite to admission into the MCRP program, but does not by itself guarantee admission into the MCRP program. (The student is advised to consult the Graduate Admission Policies section of this catalog for more detail on admission to the Graduate College.) To receive financial aid, students must be officially accepted into the MCRP Program with regular or provisional status. Admission to the Graduate College only is not sufficient to receive financial aid.

Applicants admitted to the Graduate College who wish to apply to the MCRP program must meet the following requirements prior to enrollment in CRP courses:

1. Meet with the MCRP Director of Graduate Studies to discuss the admission process, the applicant’s career interests, and reasons for seeking admission to the MCRP program.
2. Possess a baccalaureate degree from an accredited institution.
3. Demonstrate satisfactory academic competency by attaining an overall GPA of at least 3.0 and a minimum combined score of 1,000 on the Graduate Record Examination (GRE) verbal and quantitative sections. The GRE requirement can be waived for students who have earned a master’s degree from an accredited program.
4. Submit official transcripts from all previous academic institutions to the Graduate Admissions Office.
5. Submit three letters of reference, in which the applicant’s academic potential is evaluated, to the MCRP Admissions Committee, Department of Public Policy and Administration, Boise State University, 1900 University Drive, Boise, ID 83725-1935.
6. Submit the MCRP Data Form which is available on our webpage, and a formal statement of at least 500 words explaining the applicant’s educational and career objectives, and current resume.
7. Applicants who do not meet all of the above requirements MAY be recommended by the MCRP Admissions Committee for admission with provisional graduate status. However, these students must satisfy all of the conditions of their provisional status before they will be recommended for regular graduate status. Application files are due February 1 for Fall admission and September 1 for Spring admission.
8. Students may not apply more than 9 credits (3 of which can be a core class) prior to official acceptance into the MCRP program.
9. During the semester following acceptance into the MCRP program, students should 1) meet with their advisor, 2) complete their Program Development Form, and 3) enroll in at least one core course.
10. Students are allowed only 3 credits of pass/fail and 3 credits of workshop to count toward their MCRP degree.
11. All students not officially accepted to the MCRP program must get permission numbers from instructors to enroll in CRP classes.
Degree Requirements

The curriculum for the Master of Community and Regional Planning requires a core sequence in planning theory and methods. The emphasis areas allow students to specialize in one of four areas: 1) Environmental and Natural Resources, 2) Land Use and Transportation, 3) Economic Development and 4) Housing, Social and Community Development. The degree requires 36 hours of course work and 3 credit hours of internship and 3 credit hours of capstone course credit. (MCRP students with at least one year of planning experience may waive the 3 credit hours of planning internship.)

<table>
<thead>
<tr>
<th>Master of Community and Regional Planning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Course Number and Title</strong></td>
</tr>
<tr>
<td>MCRP students must successfully complete 42 credit hours of approved MCRP course work. Eighteen semester credit hours are in planning and methods core courses. Eighteen additional semester credit hours are in the student’s area of emphasis and the electives requirement. Additionally, all students complete a three-credit hour capstone experience. Course selection is made in consultation with the student’s academic advisor.</td>
</tr>
<tr>
<td><strong>Planning Core Requirements</strong></td>
</tr>
<tr>
<td>Each MCRP student is required to complete the following core courses. The core courses emphasize the knowledge and skills necessary to be an effective planner.</td>
</tr>
<tr>
<td>CRP 500 History and Theory of Planning</td>
</tr>
<tr>
<td>CRP 501 (PUBADM 520) Introduction to Community and Regional Planning</td>
</tr>
<tr>
<td>CRP 502 Economic Applications to Community and Regional Planning</td>
</tr>
<tr>
<td>CRP 503 Plan Making and Implementation</td>
</tr>
<tr>
<td><strong>Methods Core Sequence</strong></td>
</tr>
<tr>
<td>The methods core courses require students to develop skills that will enable them to be effective planners and also provide an opportunity for students to obtain methodological skills that will be most appropriate to their professional goals.</td>
</tr>
<tr>
<td>Required</td>
</tr>
<tr>
<td>CRP 505 Community Data</td>
</tr>
<tr>
<td>CRP 504 Introduction to Policy Formation-Geographic Information Systems (GIS) OR GEOG 560 Introduction to Geographic Information Systems</td>
</tr>
<tr>
<td>Choose one:</td>
</tr>
<tr>
<td>CRP 510 GIS Applications and Visualization Techniques in Planning</td>
</tr>
<tr>
<td>CRP 511 Qualitative Methods</td>
</tr>
<tr>
<td>CRP 512 Quantitative Methods</td>
</tr>
<tr>
<td>GEOG 561 Remote Sensing and Image Processing</td>
</tr>
<tr>
<td>GEOG 562 Geographic Information Analysis</td>
</tr>
<tr>
<td>GEOG 563 Geospatial Project</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Master of Community and Regional Planning (continued)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Area of Emphasis Requirements</strong></td>
</tr>
<tr>
<td>An area of emphasis is a concentration in the program. Each student is required to complete 9 credits hours drawn from one of the four areas of emphasis. Selected Topics courses will be offered to supplement areas of emphasis.</td>
</tr>
<tr>
<td>1. Environmental and Natural Resource Planning and Policy</td>
</tr>
<tr>
<td>PUBADM 541 Environmental and Regulatory Policy and Administration</td>
</tr>
<tr>
<td>Choose two</td>
</tr>
<tr>
<td>CE 522 Hazardous Waste Engineering</td>
</tr>
<tr>
<td>CRP 551 Sustainable Development</td>
</tr>
<tr>
<td>MHLTHSCI 510 Advanced Environmental Health</td>
</tr>
<tr>
<td>PUBADM 540 Contemporary Issues in Natural Resource and Environmental Policy and Administration</td>
</tr>
<tr>
<td>PUBADM 543 Public Land and Resource Policy and Administration</td>
</tr>
<tr>
<td>2. Land Use and Transportation Planning</td>
</tr>
<tr>
<td>CRP 520 Introduction to Land Use and Transportation Problems and Policy</td>
</tr>
<tr>
<td>Choose two</td>
</tr>
<tr>
<td>CE 572 Transportation Planning</td>
</tr>
<tr>
<td>CE 575 Traffic Engineering</td>
</tr>
<tr>
<td>CMGT 570 Land Development</td>
</tr>
<tr>
<td>CRP 521 Economics of Transportation Planning</td>
</tr>
<tr>
<td>CRP 523 (PUBADM 525) Planning and Zoning</td>
</tr>
<tr>
<td>CRP 533 Public Finance for Planners</td>
</tr>
<tr>
<td>CRP 540 Housing Policy and Community Development</td>
</tr>
<tr>
<td>CRP 541 Community Design and Site Planning</td>
</tr>
<tr>
<td>CRP 551 Sustainable Development</td>
</tr>
<tr>
<td>3. Economic Development Planning and Analysis</td>
</tr>
<tr>
<td>CRP 530 State, Regional and Community Economic Development</td>
</tr>
<tr>
<td>Choose two</td>
</tr>
<tr>
<td>CRP 531 Public/Private and Mixed Enterprises Planning</td>
</tr>
<tr>
<td>CRP 532 Real Estate Development</td>
</tr>
<tr>
<td>CRP 533 Public Finance for Planners</td>
</tr>
<tr>
<td>CRP 534 Downtown Revitalization</td>
</tr>
<tr>
<td>4. Housing, Social, and Community Development Planning</td>
</tr>
<tr>
<td>CRP 540 Housing Policy and Community Development</td>
</tr>
<tr>
<td>Choose two</td>
</tr>
<tr>
<td>CMGT 570 Land Development</td>
</tr>
<tr>
<td>CRP 523 (PUBADM 525) Planning and Zoning</td>
</tr>
<tr>
<td>CRP 530 State, Regional and Community Economic Development</td>
</tr>
<tr>
<td>CRP 532 Real Estate Development</td>
</tr>
<tr>
<td>CRP 533 Public Finance for Planners</td>
</tr>
<tr>
<td>CRP 541 Community Design and Site Planning</td>
</tr>
<tr>
<td>CRP 551 Sustainable Development</td>
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<tr>
<td>DISPUT 502 Negotiation Theory and Practice</td>
</tr>
<tr>
<td>DISPUT 503 Conflict Intervention Methods</td>
</tr>
<tr>
<td>DISPUT 504 Facilitating Groups in Conflict</td>
</tr>
</tbody>
</table>
### Master of Community and Regional Planning (continued)

<table>
<thead>
<tr>
<th>Elective Courses</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>An area of emphasis is a concentration in the program.</td>
<td></td>
</tr>
<tr>
<td>Each student is required to complete 9 credit hours drawn from one of the four areas of emphasis. Selected Topics courses will be offered to supplement areas of emphasis. CE 512 (GEOS 512) Hydrogeology</td>
<td>3</td>
</tr>
<tr>
<td>CE 526 (GEOS 526) Real Estate Development</td>
<td>3</td>
</tr>
<tr>
<td>CE 516 (GEOPH 516)/GEOS 516) Hydrology</td>
<td>3</td>
</tr>
<tr>
<td>CE 526 (GEOS 526) Aqueous Geochemistry</td>
<td>3</td>
</tr>
<tr>
<td>CE 564 Seepage, Drainage, Flow Nets and Embankments</td>
<td>3</td>
</tr>
<tr>
<td>CRP 522 (PUBADM 522) Planning: Process and Practice</td>
<td>3</td>
</tr>
<tr>
<td>CRP 561 Legal Frameworks</td>
<td>3</td>
</tr>
<tr>
<td>CRP 581 Environmental and Natural Resources</td>
<td>1-3</td>
</tr>
<tr>
<td>CRP 582 Land Use and Transportation</td>
<td>1-3</td>
</tr>
<tr>
<td>CRP 583 Economic Development</td>
<td>1-3</td>
</tr>
<tr>
<td>CRP 584 Housing, Social, and Community Development</td>
<td>1-3</td>
</tr>
<tr>
<td>HIST 594 Workshops</td>
<td>1-3</td>
</tr>
<tr>
<td>MHLTHSCI 517 Principles of Toxicology</td>
<td>2</td>
</tr>
<tr>
<td>MHLTHSCI 542 Hazardous Waste Management</td>
<td>2</td>
</tr>
<tr>
<td>MHLTHSCI 560 Public Health Disaster Preparedness Planning – Risk Management</td>
<td>3</td>
</tr>
<tr>
<td>PUBADM 501 Public Policy Process</td>
<td>3</td>
</tr>
<tr>
<td>PUBADM 560 State and Local Government Policy and Administration</td>
<td>3</td>
</tr>
<tr>
<td>PUBADM 581 Natural Resource and Environmental Policy</td>
<td>1-3</td>
</tr>
<tr>
<td>PUBADM 582 Public Policy and Policy Analysis</td>
<td>1-3</td>
</tr>
<tr>
<td>PUBADM 583 Public Management Skills and Techniques</td>
<td>1-3</td>
</tr>
<tr>
<td>PUBADM 586 Community and Regional Planning</td>
<td>1-3</td>
</tr>
</tbody>
</table>

Any courses in the emphasis areas that are beyond the required methods or emphasis area credit hours needed can count as electives as well as other appropriate graduate classes with advisor approval. HIST 594, PUBADM 581, 582, and 583 can only be taken for elective credit with permission of the CRP program coordinator.

<table>
<thead>
<tr>
<th>Planning Internship</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRP 590 Practicum/Internship</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Capstone Experience</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRP 600 Assessment [Capstone Course]</td>
<td>3</td>
</tr>
<tr>
<td>This culminating activity is a collaborative problem solving project – planning practicum.</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL:** 42

### Planning Internship

Those MCRP students with at least one year of planning experience may waive the internship requirement. The internship is served in the private sector with an company such as a private developer or engineering firm, a public or non-profit agency at the state or local level, or other appropriate organization. The internship component comprises three (3) credit hours. The internship is meant to be a meaningful experience for both the MCRP student and the organization in which the internship is served. Through the internship, students can further enhance their preparation for work in the planning profession. At the same time, they are expected to make a valuable contribution to their assigned organizations. The internship is usually served when the student has completed at least one half of the course work in MCRP program.

### Master of Public Administration

**Director of Graduate Studies:** Elizabeth Fredericksen  
Public Affairs and Art West Building, Room 127, Mail Stop 1935  
Telephone (208) 426-1476  
e-mail: mpa@boisestate.edu

**General Information**

The Department of Public Policy and Administration offers the master’s degree in public administration (MPA), an important academic nucleus of the University’s designated area of emphasis in public affairs. As the urban university in Idaho located in the capital city, Boise State has been given the mandate to provide educational opportunities related to public affairs. The Department offers this degree to help fulfill that mandate. It is the only MPA accredited by the National Association of Schools of Public Affairs and Administration (NASPAA) in Idaho and one of only seven in the six states surrounding Idaho.

The MPA is designed to prepare pre-service students and in-service professionals for positions of leadership in public service. Administrators and other staff members in all levels of government, non-profit organizations and private sector governmental affairs departments take advantage of the general administrative and policy analysis curriculum offered in the MPA. The curriculum provides the theoretical and practical dimensions of public management necessary to assist students seeking public service careers. The MPA has three concentrations: 1) General Public Administration 2) Environmental and Natural Resource Policy and Administration, and 3) State and Local Government Policy and Administration.

Based upon its lead role in public policy, the Master of Public Administration plays an important role in the administration and delivery of courses in the Master of Health Science, Health Policy emphasis.

**Public Administration Applied Research and Service:**

In keeping with the University’s role and mission in public affairs, the **Public Policy Center** is involved in a number of important training and applied research activities that have major statewide impact. In addition to a number of specialized projects funded by grants and contracts, the Center sponsors the annual Mountain West Municipal Clerks and Treasurers Institute, and the City Managers and Administrators Conference.

The Center also produces handbooks that are widely used by officials throughout the state: the *Idaho Legislative Manual* for legislators, and the *Handbook for Elected County Officials*.

In 1995, the U.S. Environmental Protection Agency designated Boise State University as the location for its Region 10 **Environmental Finance Center**, one of only nine in the U.S. The Center’s central goal is to help create sustainable environmental systems for protecting public health and the environment by educating and training state and local officials.
Application and Admission Requirements

Students interested in the MPA program must first submit a graduate application to the Graduate Admissions Office. If approved, the applicant receives a certificate of admission to enroll in courses at Boise State. This certificate of admission is a prerequisite to admission into the MPA program, but does not by itself guarantee admission into the MPA program. The student is advised to consult the Graduate Admission Policies section of this catalog for more detail on admission to the Graduate College. To receive financial aid, students must be officially accepted into the MPA Program with regular or provisional status. Admittance to the Graduate College only is not sufficient to receive financial aid.

Applicants admitted to the Graduate College who wish to apply to the MPA program must:

1. Meet with the MPA Director of Graduate Studies to discuss the admission process, the applicant’s career interests, and reasons for seeking admission to the MPA program.

2. Possess a baccalaureate degree from an accredited institution.

3. Demonstrate satisfactory academic competency by attaining an overall GPA of at least 3.0 and a minimum combined score of 1,000 on the Graduate Record Examination (GRE) verbal and quantitative sections. The GRE requirement can be waived for students who have earned a master’s degree from an accredited program.

4. Submit official transcripts from all previous academic institutions to the Graduate Admissions Office.

5. Submit three letters of reference, in which the applicant’s academic potential is evaluated, to the MPA Admissions Committee, Department of Public Policy and Administration, Boise State University, 1910 University Drive, Boise, ID 83725-1935.

6. Submit the MPA Data Form, and a formal statement of at least 500 words explaining the applicant’s educational and career objectives.

Applicants who meet the preceding requirements by admission deadlines will have their complete applications submitted for committee review. Meeting these requirements does not guarantee admission to the MPA program.

Applicants who do not meet all of the above requirements, but have a completed application, may be recommended by the MPA Admissions Committee for admission with provisional graduate status. However, these students must satisfy all of the conditions of their provisional status before they will be recommended for regular graduate status. Application files are due February 1 for Fall admission and September 1 for Spring admission.

Students may not take more than 9 credits of PUBADM coursework (3 of which can be a core class) prior to official acceptance into the MPA program.

During the semester following acceptance into the MPA program, students should:
1. meet with their advisor; 2. complete their Program Development Form; and 3. enroll in PUBADM 500.

Students accepted into the MPA Program who have earned a Certified Public Managers Certificate (CPM) from the State of Idaho may petition to the Director of Graduate Studies, DPPA to have the number of credits needed to receive an MPA Degree reduced from 39 to 36, with the reduction coming from the 18 required elective credits.

Students are allowed only 3 credits of pass/fail and 3 credits of workshop to count toward their MPA degree.

All students not officially accepted to the MPA program must get permission numbers from instructors to enroll in PUBADM classes.

Degree Requirements

<table>
<thead>
<tr>
<th>Master of Public Administration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Number and Title</td>
</tr>
<tr>
<td>----------------------------</td>
</tr>
<tr>
<td>PUBADM 500 Administration in the Public Sector</td>
</tr>
<tr>
<td>PUBADM 501 Public Policy Process</td>
</tr>
<tr>
<td>PUBADM 502 Organizational Theory</td>
</tr>
<tr>
<td>PUBADM 503 Research Methods in Public Administration</td>
</tr>
<tr>
<td>PUBADM 504 Public Budgeting and Financial Administration</td>
</tr>
<tr>
<td>PUBADM 505 Public Personnel Administration</td>
</tr>
<tr>
<td>PUBADM 500 Assessment</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Area of Emphasis Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>An area of emphasis is a concentration or major in the program. Each MPA student is to complete 12 semester credit hours in one of the following three areas of emphasis. Selected Topics courses will be offered to supplement area of emphasis requirements.</td>
</tr>
</tbody>
</table>

1. General Public Administration: This area of emphasis provides opportunities for those students desiring preparation in public administration as a “generalist” rather than a “specialist” in a particular area. Students should select the 12 credit hours of course work from the non-core MPA courses listed in this catalog.

2. Environmental and Natural Resource Policy and Administration:

PUBADM 540 Contemporary Issues in Natural Resource and Environmental Policy and Administration | 3 |
PUBADM 541 Environmental and Regulatory Policy and Administration | 3 |
PUBADM 542 Science, Democracy and the Environment | 3 |
PUBADM 543 Public Land and Resource Policy and Administration | 3 |

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Graduate Certificate in Community and Regional Planning

Director of Certificate Program: Susan Mason
Public Affairs and Art West Building, Room 126F, Mail Stop 1935
Telephone (208) 426-2658
FAX (208) 426-4370
e-mail: susanmason@boisestate.edu

General Information

The Graduate Certificate in Community and Regional Planning assists working professionals and students to understand and respond to community needs in planning. The certificate program focuses on a general understanding of the elements and current practices in planning, as well as technical skills needed by practicing planners.

Application and Admission Requirements

A prospective student may apply at any time but must follow the general application procedures for admission to a graduate program (see the Graduate Admission Regulations section of this catalog). If approved by the Graduate College, the applicant receives permission to enroll in graduate courses at Boise State. The Admission to the Graduate College is a prerequisite to admission to the graduate Certificate in Community and Regional Planning Program but by itself is not a guarantee of admission into the Community and Regional Planning Graduate Certificate Program.

Applicants admitted to the Graduate College who wish to apply to the Graduate Certificate in Community and Regional Planning Program must meet the following requirements prior to enrollment in the planning certificate courses:

1. Possess a baccalaureate degree from an accredited institution.
2. Demonstrate satisfactory academic competency by attaining an overall GPA of at least 3.0 in previous college-level course work.
3. Meet with the Director of the Graduate Certificate in Community and Regional Planning Program to discuss the admission process, the applicant’s career interests, and the reason for seeking admission to the Graduate Certificate in Community and Regional Planning Program.
4. Submit three letters of reference, in which the applicant’s academic potential is evaluated, to the Director, Graduate Certificate in Community and Regional Planning Program.
5. Submit a letter of interest and resume to the Director of the Graduate Certificate Program. (For applicants whose academic record predates the Boise State University, a general application is required.)
6. Submit letters of recommendation.)

Those MPA students without at least one year of administrative experience in a public sector or other public affairs agency are to complete a public service internship. The internship is served in a government office at the local, state or national level or in an appropriate public affairs organization, such as a private, nonprofit agency. The credits received for the internship are in addition to the 39 semester credit hours from the core area and area of emphasis. The internship component comprises six (6) semester credit hours. The internship is intended to be a meaningful experience for both the MPA student and the organization in which the internship is served. Through the internship, students can further enhance their preparation for administrative work. At the same time, they are expected to make a valuable contribution to their assigned organizations. The internship is usually served when the student is near completion of the MPA program. Students who believe they are eligible for a waiver of the internship requirement should contact the graduate director.
status in the Certificate Program. However, these students must satisfy all of the conditions of their provisional status before they will be recommended for regular graduate status in the Certificate Program. Application files are due February 1 for Fall admission and September 1 for Spring admission.

7. Students may not take more than 6 credits (3 of which can be a core class) prior to official acceptance into the Certificate Program.

8. Students are allowed only 3 credits of pass/fail and 3 credits of workshops to count toward their certificate in Community and Regional Planning.

9. Prior to the first semester of course work students must meet with the Director to complete their Program Development Form. Once the file for an applicant is complete, it will be evaluated by the Director of the Graduate Certificate in Community and Regional Planning Program and its admission faculty committee. An admission recommendation will be forwarded to the Dean of the Graduate College. The Dean will make the final admission decision and notify the applicant. Admission to and successful completion of the Graduate Certificate in Community and Regional Planning Program does not guarantee admission to any other graduate program.

If students would like to simultaneously enroll in another Graduate degree program, they may do so subject to the conditions outlined in the Regulations for Graduate Certificate Programs (under Simultaneous Enrollment in Graduate Certificate and Degree Program) in this catalog.

Certificate Requirements

A minimum of 15 credits is required for the completion of the Graduate Certificate in Community and Regional Planning. The curriculum is comprised of 9 credit hours of required course work and 6 additional credits of elective courses.

Graduate Certificate in Community and Regional Planning

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core courses</td>
<td>9</td>
</tr>
<tr>
<td>Each Community and Regional Planning Certificate student is required to complete nine credit hours of core courses.</td>
<td></td>
</tr>
<tr>
<td>CRP 501 (PUBADM 520) Introduction to Community and Regional Planning</td>
<td>3</td>
</tr>
<tr>
<td>PUBADM 524 Introduction to Policy Formation: Geographic Information Systems (GIS)</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 560 Introduction to Geographic Information Systems</td>
<td>3</td>
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<tr>
<td>PUBADM 560 State and Local Government Policy and Administration</td>
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Elective Courses

Students must complete 6 credit hours from the electives listed below or other graduate courses. Note: Not more than three credit hours of DISPUT courses may be counted toward the certificate requirements.

<table>
<thead>
<tr>
<th>Course Number and Title</th>
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<tr>
<td>CE 572 Transportation Planning</td>
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<tr>
<td>CE 575 Traffic Engineering</td>
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<tr>
<td>CMGT 570 Land Development</td>
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<tr>
<td>CRP 522 (PUBADM 522) Planning: Process and Practice</td>
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<tr>
<td>CRP 523 (PUBADM 523) Planning and Zoning</td>
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<tr>
<td>DISPUT 502 Negotiation Theory and Practice</td>
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<td>DISPUT 503 Conflict Intervention Methods</td>
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<tr>
<td>DISPUT 504 Facilitating Groups in Conflict</td>
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<tr>
<td>MHLTHSCI 560 Public Health Disaster Preparedness Planning: Risk Management</td>
<td>3</td>
</tr>
<tr>
<td>PUBADM 586 Selected Topics: Community and Regional Planning</td>
<td>1-3</td>
</tr>
</tbody>
</table>

Other Graduate Courses—Graduate courses in a related field. All courses to be selected with student input and approved by the supervisory committee.

TOTAL 15

Graduate Certificate in Conflict Management

Graduate Program Director: Suzanne McCorkle
Public Affairs and Arts West, Room 123F, Mail Stop 1935
Telephone (208) 426-3928
FAX (208) 426-4370
e-mail: smccork@boisestate.edu

General Information

The Graduate Certificate in Conflict Management assists working professionals and students to understand and respond to interpersonal and group conflict. The certificate program focuses on understanding the causes and productive responses to interpersonal conflict, including third-party facilitation and mediation, as well as upon the understanding of conflict in larger groups and the skills of facilitating high conflict meetings.
Application and Admission Requirements

1. Admission to the Graduate College
   A. Send Graduate Admission Application and applicable fee to the Graduate Admissions Office.
   B. Request official transcripts from each institution previously attended be sent directly to the Graduate Admissions Office.

2. Contact the Director of the Boise State University Office of Conflict Management Services for an advising and admissions interview. All applicants will be notified of the admission decision by regular mail.
   Suzanne McCorkle, Ph.D.
   Director, Office of Conflict Management Services
   Boise State University
   Boise, Idaho 83725-1935
   (208) 426-3928
   smccork@boisestate.edu

3. Admission to and successful completion of the Conflict Management certificate program does not guarantee admission to any other graduate program.

Certificate Requirements

<table>
<thead>
<tr>
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<tr>
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<tr>
<td>*DISPUT 500 Basic Mediation</td>
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<td>DISPUT 501 Human Factors in Conflict Management</td>
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<td>DISPUT 504 Facilitating Groups in Conflict</td>
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<td>DISPUT 546 Competency Exam</td>
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<tr>
<td>DISPUT 501 Human Factors in Conflict Management</td>
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<td>DISPUT 502 Negotiation Theory and Practice</td>
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<td>DISPUT 590 Internship</td>
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<tr>
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</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>12</strong></td>
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</tbody>
</table>

*Candidates who have already completed DISPUT 500 or other equivalent undergraduate basic mediation courses will waive DISPUT 500 and then take three additional graduate credits of approved elective coursework.

**Current Idaho Mediation Association Certified Practicing Mediators may waive the internship and competency exam and substitute three additional graduate credits of approved elective coursework.

Course Offerings

**CRP—COMMUNITY AND REGIONAL PLANNING**

**CRP 500 HISTORY AND THEORY OF PLANNING (3-0-3)(F/S).**
Examines the scope and historical development of planning. Competing and complementary theories on the practice of planning, social and physical development policy. Considers the development of modern regional city centers.

**CRP 501 (PUBADM 520) INTRODUCTION TO COMMUNITY AND REGIONAL PLANNING (3-0-3)(F/S).**
A study of the theories, objectives, techniques, and problems of governmental planning within cities, metropolitan areas and regions, as well as at the national level of government in the United States. A discussion of the planning profession and the politics of planning. May be taken for CRP or PUBADM credit, but not both.

**CRP 502 ECONOMIC APPLICATIONS TO COMMUNITY AND REGIONAL PLANNING (3-0-3)(F/S).**
Economic concepts and tools of analysis for public policy and planning. Examines micro and macro approaches for understanding economic behavior, and developing solutions to economic problems with applications to the environment, housing, poverty, and economic development.

**CRP 503 PLAN MAKING AND IMPLEMENTATION (3-0-3)(F/S).**
Considers the theory and practice of strategic planning, strategic management, and project implementation. Approaches to designing and conducting strategic planning, including specific techniques for conducting environmental scans, SWOT analyses, strategic issue identification, and strategy formulation as well as project management tools are examined.
CRP 501 QUALITATIVE METHODS (3-0-3)(F/S). Interviews, observation, focus group methods are examined in relation to planning and public administration. Other topics include communication skills in terms of writing, presentation, interpersonal dialogue, and group process.

CRP 502 INTRODUCTION TO LAND USE AND TRANSPORTATION PROBLEMS AND POLICY (3-0-3)(F/S). Examines the linkages between land use and transportation in the planning process. Analysis of policies relating to transportation alternatives; institutional environment and background; federal, state, regional, and local agency responsibilities and interactions.

CRP 503 ECONOMICS OF TRANSPORTATION PLANNING (3-0-3)(F/S). Economic analysis of transportation planning including land use and transportation systems as well as transportation investments. Social and environmental impacts, incentive structures, alternative travel, investment guidelines, and technological change will be considered. Students will apply methods to evaluate various proposals.

CRP 504 (PUBADM 522) PLANNING: PROCESS AND PRACTICE (3-0-3)(F/S). Examines the role of planners and the processes and techniques used in the planning profession. Types of economic analysis, forces in the development of cities, human capital and non-labor resources, making plans, strategic planning, involving the public and citizen participation. May be taken for CRP or PUBADM credit, but not both.

CRP 505 COMMUNITY DATA (3-0-3)(F/S). Reviews the history of community indicators, examines conceptual foundations and operationalization of indicators of economic, social, institutional and environmental health and vitality that have been developed and used by urban and rural communities in the US and elsewhere.

CRP 506 GIS APPLICATIONS AND VISUALIZATION TECHNIQUES IN PLANNING (3-0-3)(F/S). Topics include urban ecology/land use/cartography; methods of market areas analysis; graphic analysis; gravity concepts within transportation analysis; urban climate; ecosystems McHarg method/floodplain; and visualization techniques and community participation.

CRP 507 QUANTITATIVE METHODS (3-0-3)(F/S). Basic statistical skills for policy research in planning and decision making including regression and time series. Other topics include research design and survey creation, implementation, and reporting of results.

CRP 508 SUSTAINABLE DEVELOPMENT (3-0-3)(F/S). Explores the many environmental, and legal issues of site planning. Environmentally sensitive community design considered in concert with geological, aesthetic, and regional issues. Also considers social and community development aspects of neighborhoods and metropolitan regions.

CRP 509 HOUSING POLICY AND COMMUNITY DEVELOPMENT (3-0-3)(F/S). This course examines housing policy and programs at the federal, state, and local levels as well as the role of community based organizations involved in housing activities. Also considers social and community development aspects of neighborhoods and metropolitan regions.

CRP 510 LEGAL FRAMEWORKS (3-0-3)(F/S). Introduction to public interest, state, and federal constitutional law. Examines the legal tools and, pivotal courts decisions, and landmark legislation in land use law such as Kelo v. New London as well as environmental justice cases, civil rights, and fair housing acts.

DISPUT — DISPUTE RESOLUTION

DISPUT 501 HUMAN FACTORS IN CONFLICT MANAGEMENT (1-0-1)(F). This course presents communication theories to assist managers understanding, analyzing, and managing conflict. The course focuses on the causes of conflict and includes the influence of style on conflict. The course is pragmatic as well as theoretical.

DISPUT 502 NEGOTIATION THEORY AND PRACTICE (1-0-1)(F). The successful manager in professional settings is involved in a variety of negotiation activities. The tactics, strategies, and operations of effective and ineffective bargaining/negotiation behaviors will be presented. The course develops negotiator skills and knowledge leading to collaborative based action and solutions.

DISPUT 503 CONFLICT INTERVENTION METHODS (1-0-1)(F). This course overviews the various contexts of third party intervention into conflict: facilitation, public involvement processes, mediation, and arbitration, and develops skills at first level supervisor/manager intervention into employee conflicts.

DISPUT 504 FACILITATING GROUPS IN CONFLICT (1-0-1)(S). Public input processes on controversial issues may generate conflict. The causes and skills for facilitating public input processes will be discussed, as well as techniques for facilitating conflict within small and large group meetings.

DISPUT 505 CULTURE AND CONFLICT (1-0-1)(S). Managing conflicts with persons from other cultural backgrounds than oneself is particularly challenging. Common errors in interpersonal conflict management and mediation will be discussed, along with perspectives to ameliorate the difficulties in conflict management across cultural lines.

DISPUT 506 MEDIATION COMPETENCY BOARD (0-0-1)(F/S). Competency-based testing is required by several mediation professional organizations. Students conduct case work and mediate a case from within their emphasis area before a panel of expert mediators. Students discuss issues related to mediation within their specialty area. (Pass/Fail.) PREREQ: PERM/PROG DIR.

DISPUT 507 CONFLICT ANALYSIS (3-0-3)(F/S). Procedures are examined and analysis methods will be applied to regional policy or environmental conflict issues.

CRP 511 QUALITATIVE METHODS (3-0-3)(F/S). Basic statistical skills for policy research in planning and decision making including regression and time series. Other topics include research design and survey creation, implementation, and reporting of results.

CRP 512 QUANTITATIVE METHODS (3-0-3)(F/S). Basic statistical skills for policy research in planning and decision making including regression and time series. Other topics include research design and survey creation, implementation, and reporting of results.

CRP 513 PUBLIC/PRIVATE AND MIXED ENTERPRISES PLANNING (3-0-3)(F/S). Case studies of planning and public/private and mixed enterprises; public production of private goods; privatization of public services; public/private partnerships; mixed enterprises.

CRP 514 DOWNTOWN REVITALIZATION (3-0-3)(F/S). Examines growth and revitalization for downtowns and commercial districts. Includes evolution of downtown areas and theoretical explanations for commercial location, approaches to maintaining activities in commercial areas in both urban and rural locations.

CRP 515 HOUSING POLICY AND COMMUNITY DEVELOPMENT (3-0-3)(F/S). This course examines housing policy and programs at the federal, state, and local levels as well as the role of community based organizations involved in housing activities. Also considers social and community development aspects of neighborhoods and metropolitan regions.

CRP 516 LEGAL FRAMEWORKS (3-0-3)(F/S). Introduction to public interest, state, and federal constitutional law. Examines the legal tools and, pivotal courts decisions, and landmark legislation in land use law such as Kelo v. New London as well as environmental justice cases, civil rights, and fair housing acts.

DISPUT — DISPUTE RESOLUTION

DISPUT 501 HUMAN FACTORS IN CONFLICT MANAGEMENT (1-0-1)(F). This course presents communication theories to assist managers understanding, analyzing, and managing conflict. The course focuses on the causes of conflict and includes the influence of style on conflict. The course is pragmatic as well as theoretical.

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DISPUT 507 CONFLICT ANALYSIS (3-0-3)(F/S). Procedures are examined and analysis methods will be applied to regional policy or environmental conflict issues.
PUBADM — PUBLIC ADMINISTRATION

PUBADM 500 ADMINISTRATION IN THE PUBLIC SECTOR (3-0-3) (F,S). Designed to introduce students to the broad field of public administration at the graduate level. The course surveys a number of important issues in contemporary public administration, including an emphasis on political, legal, economic and social institutions and processes.

PUBADM 501 PUBLIC POLICY PROCESS (3-0-3) (F,S). Process of policy-making both within an agency and within the total governmental process, emphasizing policy and program planning, policy implementation and the value system of administrators.

PUBADM 502 ORGANIZATIONAL THEORY (3-0-3) (F,S). Theories of organization behavior and management, with special attention given to public sector organizations. Issues and problems related to the non-profit sector will also be addressed.

PUBADM 503 RESEARCH METHODS IN PUBLIC ADMINISTRATION (3-0-3) (F,S). Introduction to quantitative and qualitative data analysis with an emphasis on using descriptive and inferential statistics as tools in both public policy analysis and public program analysis. The use of quantitative analysis to support management decision making is examined. Computers will be used in the analysis of quantitative data.

PUBADM 504 PUBLIC BUDGETING AND FINANCIAL ADMINISTRATION (3-0-3) (F,S). Determination of fiscal policy, budgeting processes, and governmental forms of budgeting. Consideration of fiscal policy and processes in various program areas. Emphasis on the interface between technical and political processes.

PUBADM 505 PUBLIC PERSONNEL ADMINISTRATION (3-0-3) (F,S). An examination of the personnel/human resource management role as it has evolved in the public sector. The multiple responsibilities of personnel managers in the public sector will be examined, and the link between public policy and personnel management will be identified.

PUBADM 511 DECISION-MAKING IN PUBLIC AND NONPROFIT MANAGEMENT (3-0-3) (F,S). Designed to introduce decision theory and optimization techniques and tools in public and nonprofit organizations to provide basic techniques related to planning, monitoring, managing, and measuring program performance.

PUBADM 520 (CRP 501) INTRODUCTION TO COMMUNITY AND REGIONAL PLANNING (3-0-3) (F,S). A study of the theories, objectives, techniques, and problems of governmental planning within cities, metropolitan areas, and regions, as well as at the national level of government in the United States. A discussion of the planning profession and the politics of planning. May be taken for CRP or PUBADM credit, but not both.

PUBADM 522 (CRP 522) PLANNING: PROCESS AND PRACTICE (3-0-3) (F,S). Examines the role of planners and the processes and techniques used in the planning profession. Types of economic analysis, forces in the development of cities, human capital and non-labor resources, making plans, strategic planning, involving the public and citizen participation. May be taken for CRP or PUBADM credit, but not both.

PUBADM 523 (CRP 523) PLANNING AND ZONING (3-0-3) (F,S). Examines zoning theory, concepts, techniques and procedures in the practice of zoning. An introduction to zoning; the process; the legal aspects of zoning and its financing; implementing the comprehensive plan and integrating city and regional plans; responsible growth; and the transportation/land use connection. May be taken for CRP or PUBADM credit, but not both.

PUBADM 524 INTRODUCTION TO POLICY FORMATION: GEOGRAPHIC INFORMATION SYSTEMS (GIS) (3-0-3) (F,S). Use of computers and ArcGIS software to analyze public policy problems that have a geographic component. The course has three objectives: To become familiar with ArcGIS, to learn about as well as how to utilize geographic data, and to perform spatial analysis.

PUBADM 530 ADMINISTRATIVE LAW AND REGULATION (3-0-3) (F,S). Sources of power and duties of administrative agencies, rules and regulations made by agencies through investigation and hearings, judicial decisions and precedents relating to administrative activities.

PUBADM 532 GRANT WRITING (3-0-3) (F,S). Students will explore the skills and techniques associated with successful grant writing and will prepare a grant proposal.

PUBADM 540 CONTEMPORARY ISSUES IN NATURAL RESOURCE AND ENVIRONMENTAL POLICY AND ADMINISTRATION (3-0-3) (F,S). Examines current and topical issues and controversies in natural resource and environmental policy from the perspective of public policy and public administration.

PUBADM 541 ENVIRONMENTAL AND REGULATORY POLICY AND ADMINISTRATION (3-0-3) (F,S). Examines aspects of environmental regulatory politics and policy. Topics examined include the politics of regulation, pollution and energy policy, and intergovernmental environmental management.

PUBADM 542 SCIENCE, DEMOCRACY AND THE ENVIRONMENT (3-0-3) (F,S). Examines the role of science and scientists in the formation of U.S. environmental policy making. Special attention is given to the tension between elite and democratic forms of decision making.

PUBADM 543 PUBLIC LAND AND RESOURCE POLICY AND ADMINISTRATION (3-0-3) (F,S). Examines the major issues, actors, and policies affecting the public lands and resources of the United States. Special attention is paid to the processes, institutions, and organizations that influence how public land policy and resource policy is made.

PUBADM 550 THE EXECUTIVE AND THE ADMINISTRATIVE PROCESS (3-0-3) (F,S). This course covers the powers and responsibilities of elected and appointed executives in the public sector. Concepts examined in the class include leadership and management, executive roles, management theories and styles, relationships with the separate branches of government and other actors in the political environment. The unique position of the executive between politics and administration and the relevant activities in policy formation through implementation form the basis of discussion.

PUBADM 560 STATE AND LOCAL GOVERNMENT POLICY AND ADMINISTRATION (3-0-3) (F,S). This course examines state and local government administration in a political and organizational context and the attendant interunit, intersector, and interjurisdictional cooperation and conflict in policy administration. Attention is paid to management in a federal system with a focus on nation-state-local relations.

PUBADM 570 PUBLIC MANAGEMENT SKILLS AND TECHNIQUES (3-0-3) (F,S). This course addresses such knowledge and skills for managers and leaders in public organizations as: personal assessment; leading and managing others; aspects of self and others which underlie behavior; managing stress and time; decision making; public participation; working with elected and appointed public officials; working with the media; solving problems; communicating supportively and assertively; appropriately using power and influence; understanding motivational processes; managing conflicts; empowering and delegating; and building teams.

PUBADM 571 ETHICS IN THE PUBLIC SECTOR (3-0-3) (F,S). Examination of ethical dilemmas facing civil servants and elected officials utilizing case studies, current ethics statutes, and approaches in the public administration literature to the subject.

SELECTED TOPICS (1-3 Variable). To be offered as staff availability permits:

PUBADM 580 ADMINISTRATIVE THEORY AND PRACTICE

PUBADM 581 NATURAL RESOURCE AND ENVIRONMENTAL POLICY

PUBADM 582 PUBLIC POLICY AND POLICY ANALYSIS

PUBADM 583 PUBLIC MANAGEMENT SKILLS AND TECHNIQUES

PUBADM 584 STATE AND LOCAL GOVERNMENT POLICY AND ADMINISTRATION

PUBADM 585 INTERGOVERNMENTAL RELATIONS

PUBADM 586 COMMUNITY AND REGIONAL PLANNING

PUBADM 590 PUBLIC SERVICE INTERNSHIP (Variable credit).

PUBADM 595 READING AND CONFERENCE (1-4 credits).

PUBADM 597 SPECIAL TOPICS (1-3 credits).

PUBADM 599 CONFERENCE OR WORKSHOP (1 credit).

PUBADM 600 ASSESSMENT [Comprehensive Examination] (3-0-3) (F,S).

PUBADM 696 DIRECTED RESEARCH (3-6 credits).
School of Social Work

Director: Roy Rodenhiser
Education Building, Room 716, Mail Stop 1940
Telephone (208) 426-1568
FAX (208) 426-4291
www.boisestate.edu/socwork

Graduate Faculty: Robin Allen, Gretchen Cotrell, Daniel Harkness, Denice Goodrich Liley, Will Rainford, Cynthia Sanders, Misty Wall
Adjunct Graduate Faculty: Lawrence Cronin, James Knapp, Sue Martin

Graduate Degree Offered
- Master of Social Work—Two Year Program
- Master of Social Work—Advanced Standing
- Graduate Certificate in Gerontological Studies

Master of Social Work

Graduate Program Coordinator: Will Rainford
Education Building, Room 716, Mail Stop 1940
Telephone (208) 426-4044
e-mail: willrainford@boisestate.edu

General Information
The Master of Social Work (MSW) is a two-year full-time graduate program, accredited by the Council on Social Work Education (reaffirmed in 1999). The program is designed to prepare students for advanced social work practice with individuals and families. Students learn clinical, organizational, policy, and administrative skills necessary for promoting social justice and equality, and enhancing the quality of life for all people. The program provides a broad and in-depth knowledge base in order to prepare students for advanced social work practice in a wide array of settings.

Application and Admission Requirements
Applications for both programs (two year and advanced standing) are available online at www.boisestate.edu/socwork. Applications for both programs are processed and reviewed starting January 1 on a continuous basis until program enrollment limits are met. Closing date for admission into the two year program is August 1. Closing date for advanced standing is June 15. Enrollment in both programs is limited and the admission process is very competitive. Early application is strongly advised. When enrollment capacities are filled, a waiting list of qualified applicants is started. As seats become available, qualified applicants on the wait list are notified of program availability and offered admission into the program. Accepted applicants must reserve their seat in the class. Factors such as education (GPA and continuing education courses), social work experience (paid and/or voluntary), personal information, and diversity are considered in the admission decision. Criteria for admission into the MSW program:

1. Completion of the Boise State University Graduate Admissions Application and The School of Social Work Application for admission as a graduate student.
2. A bachelor’s degree from an accredited college or university with a distribution of liberal arts courses (70 quarter credits or 46 semester credits) and a minimum of 10 quarter credits or 6 semester credits in each of the general distribution areas: humanities, social sciences, and natural sciences/mathematics. Applicants must complete coursework with a minimum of a C letter grade in a math or research course which contains content on descriptive and inferential statistics. Applicants must also be able to demonstrate in their completed curriculum that they possess fundamental understanding of the biological basis of human behavior.
3. An overall undergraduate grade point average (GPA) of 3.0 or higher and a GPA of 3.0 or higher for the junior and senior years of undergraduate study.
   Note: Applicants may not receive academic credit for work experience in the field or for life experience.

The Master of Social Work Program has one concentration: Advanced direct practice with individuals and families. Students in the two year program must complete a total of 63 credits including 18 credits in Field Work. Students in the Advanced Standing program complete 31 credits with 12 credits in Field Work.

Note: Students may receive certification to practice school social work in the State of Idaho by completing SOCWRK 575 School Social Work, SOCWRK 575 and 576 in an approved K-12 educational setting under the supervision of a professional social worker, and all other requirements for the Master of Social Work degree.

Degree Requirements

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<tr>
<td>SOCWRK 502 Foundation of Social Welfare and Social Work: History and Philosophy</td>
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<td>SOCWRK 503 Foundation Social Work Practice I: Individuals</td>
<td>3</td>
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<tr>
<td>SOCWRK 504 Foundation Social Work Practice II: Families and Groups</td>
<td>3</td>
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<tr>
<td>SOCWRK 505 Foundation of Social Welfare Policy</td>
<td>3</td>
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<tr>
<td>SOCWRK 512 HBSE I Human Development Through the Life Cycle</td>
<td>3</td>
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<td>SOCWRK 514 Ethnicity, Gender and Class</td>
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<tr>
<td>SOCWRK 515 Foundation Social Work Practice III: Organizations and Communities</td>
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<td>SOCWRK 521 HBSE II Social Dimensions of Human Behavior</td>
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<td>SOCWRK 530 Foundations of Research I</td>
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<td>SOCWRK 531 Foundations of Research II</td>
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<td>SOCWRK 570 Foundation Field Work I</td>
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### Master of Social Work – Two Year Program (Continued)

#### Year Two—Advanced

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<tr>
<th>Course Number and Title</th>
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<tbody>
<tr>
<td>SOCWRK 506 Advanced Policy and Legislation: Individuals and Families</td>
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<tr>
<td>SOCWRK 516 Advanced Practice with Diverse Populations</td>
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<tr>
<td>SOCWRK 525 Advanced Social Work Interventions II: Individuals and Families</td>
<td>3</td>
</tr>
<tr>
<td>SOCWRK 526 The Evaluation and Treatment of Mental Disorders</td>
<td>3</td>
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<tr>
<td>SOCWRK 532 Advanced Research: Program and Practice Evaluation</td>
<td>3</td>
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<tr>
<td>SOCWRK 550 Advanced Interventions I: Comparative Theories</td>
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<td>SOCWRK 575 Advanced Social Work Practicum I</td>
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<td>SOCWRK 576 Advanced Social Work Practicum II</td>
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<td>SOCWRK 578 Advanced Practicum Seminar II</td>
<td>1</td>
</tr>
</tbody>
</table>

*One elective | 2

**TOTAL** 63

*Specialization Electives (2 credits each)

Selected Topics

(Effective options will vary from year to year, and may include these or other pertinent issues.)

- Violence in the Family
- Substance Abuse
- Women’s Issues
- Social Work with the Elderly
- Social Work Supervision
- Grant Writing/Administration
- International Social Work
- Social Work with People of Color

**Note:** Curriculum Guidelines established by the Council on Social Work Education are available in the School of Social Work office.

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### Master of Social Work — Advanced Standing

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicants who are graduates of a CSWE accredited baccalaureate program in Social Work may request admission to the advanced program. The advanced standing option is an nine-month program. Criteria for admission for Advanced Standing study in the MSW program are:</td>
<td></td>
</tr>
<tr>
<td>2. Minimum GPA of 3.0 in social work courses from an accredited undergraduate program. Students with an individual social work course with a grade less than C will be required to complete additional equivalent content.</td>
<td></td>
</tr>
<tr>
<td>3. This degree must have been completed within five years of the applicant’s planned entry into Boise State University’s MSW program OR within seven years if the applicant has substantial paid social work experience.</td>
<td></td>
</tr>
<tr>
<td>4. All other requirements equivalent to regular admissions.</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Applicants may not receive academic credit for work experience in the field.

**TOTAL** 31

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### Graduate Certificate in Gerontological Studies

(See Section on Interdisciplinary Programs)
**Course Offerings**

**SOCWRK — SOCIAL WORK**

**SOCWRK 502 FOUNDATION OF SOCIAL WELFARE AND SOCIAL WORK: HISTORY AND PHILOSOPHY** (3-0-3) (F).

The major purpose of this course is to place the profession of Social Work within historical context. The course explores the development of social welfare institutions and the Social Work profession in the United States from its European roots, emphasizing social welfare issues and social policy and programmatic responses. This course also examines the impact of human diversity on socioeconomic and political statuses and access to social welfare resources and social work services. PREREQ: Admission to MSW Program.

**SOCWRK 503 FOUNDATION SOCIAL WORK PRACTICE I: INDIVIDUALS** (3-0-3) (F).

This is the first practice course within the foundation year of the MSW program. Practice I introduces students to knowledge and skills for generalist practice with individuals. Students practice key skills that include engagement, interviewing, assessment, contracting, intervention, recording, and the use of consultation and supervision in the context of social work values and ethics and affirming working relationships. PREREQ: Admission to MSW Program. PREREQ/COREQ: SOCWRK 512, SOCWRK 570.

**SOCWRK 504 FOUNDATION SOCIAL WORK PRACTICE II: FAMILIES AND GROUPS** (3-0-3) (S).

This is the second generalist practice course within the three course practice sequence in the foundation year. This course builds on the foundational skills gained through successful completion of Practice I. Practice II introduces the student to theories and skills required for social work practice with diverse families and groups including assessing, building upon strengths and resources within all client systems, social work values and ethics, and delivering empirically based interventions to small groups and families. PREREQ: SOCWRK 503. PRE/COREQ: SOCWRK 512; SOCWRK 572.

**SOCWRK 505 FOUNDATION OF SOCIAL WELFARE AND SOCIAL POLICY** (3-0-3) (S).

Critically examines contemporary welfare policies, in a value-analytic framework, and in the context of the United States and international political economies. Emphasis is placed on values of equity, adequacy, and universalism of access to basic social and economic security. Policy practice skills include identification and evaluation of policy problems, including their empirical and value dimensions, and skills in policy advocacy with legislators and with the general public. Major importance is placed on policies and programs that impact populations-at-risk. PREREQ: Admission to MSW; SOCWRK 502.

**SOCWRK 506 ADVANCED POLICY AND LEGISLATION: INDIVIDUALS AND FAMILIES** (3-0-3) (S).

This advanced policy course is designed to prepare students with the knowledge and skills to analyze, design, and advocate for social welfare policy and programs, with a specific focus on policies and programs which affect individuals and families. The course examines various theoretical approaches to family policy, as well as current policy issues and legislation. Research on family needs is emphasized. The course explores the impact of social systems on human behavior in terms of socioeconomic, sociopolitical and sociocultural forces, from a variety of theoretical perspectives. Examines the ways in which systems promote or deter achievement and maintenance of optimal health and well-being. The effects of prejudice and discrimination on individuals and groups, based on race, ethnicity, gender, affecitional orientation, class, or other stigmatizing characteristics are emphasized. PREREQ: SOCWRK 512.

**SOCWRK 507 FOUNDATION SOCIAL WORK PRACTICE III: COMMUNITIES AND ORGANIZATIONS** (3-0-3) (S).

This is the second generalist practice course within the foundation year of the MSW program. Practice III introduces students to theories and skills required for social work practice in organizational and community settings. Using organizations and communities as settings for social work practice and targets of change, and based on social work values and ethics, students learn strategies and skills for assessment and intervention. Conceptual models of macro change are examined including social planning, community organizing, social action, and community/organizational development and change. PREREQ: SOCWRK 503. PRE: SOCWRK 504; SOCWRK 521; SOCWRK 572.

**SOCWRK 512 HBSE I HUMAN DEVELOPMENT THROUGH THE LIFE CYCLE** (3-0-3) (F).

Examines the use of a biopsychosociocultural development framework, within the context of social work values and ethics, in understanding the interrelationships among human, biological, psychological, and social systems as they affect and are affected by human behavior. Examines and contrasts empirically-based theories of human development. Students learn age-related tasks commonly associated with different life stages, influenced by gender, historical time, culture, and economics. Examines unique factors affecting development of women, ethnic and racial groups, GLBT individuals, people with disabilities and other historically oppressed people. PREREQ: Admission to MSW Program.

**SOCWRK 513 ETHNICITY, GENDER AND CLASS** (1-0-1) (F, SU).

This experiential course in a small group format is designed to provide a positive environment for students’ exploration of their attitudes toward human diversity. The major objective is that students will increase their knowledge and awareness of the experiences of people of oppressed groups, in relation to historical prejudice and discrimination. Students will gain insight in sociohistorical and familial roots of their own biases and increase their ability to sensitively work with individuals and groups who are subjected to oppression, based on race ethnicity, gender, affecional orientation, class, and other stigmatizing characteristics. PREREQ: Admission to MSW Program.

**SOCWRK 515 FOUNDATION SOCIAL WORK PRACTICE III: ORGANIZATIONS AND COMMUNITIES** (3-0-3) (S).

This is the third generalist practice course within the foundation year of the MSW program. Practice III introduces students to theories and skills required for social work practice in organizational and community settings. Using organizations and communities as settings for social work practice and targets of change, and based on social work values and ethics, students learn strategies and skills for assessment and intervention. Conceptual models of macro change are examined including social planning, community organizing, social action, and community/organizational development and change. PREREQ: SOCWRK 503. PRE: SOCWRK 504; SOCWRK 521; SOCWRK 572.

**SOCWRK 516 ADVANCED PRACTICE WITH DIVERSE POPULATIONS** (2-0-2) (S).

Examines the socio-dynamics of culture, oppression, power and identity in relation to working with diverse client populations in a variety of social work settings. Requires students to reflect on the significance of their own social and cultural identities and those of their clients in practice experiences. Builds upon the foundation curriculum.

**SOCWRK 517 HBSE II SOCIAL DIMENSIONS OF HUMAN BEHAVIOR** (3-0-3) (S).

This course explores the impact of social systems on human behavior in terms of socioeconomic, sociopolitical and sociocultural forces, from a variety of theoretical perspectives. Examines the ways in which systems promote or deter achievement and maintenance of optimal health and well-being. The effects of prejudice and discrimination on individuals and groups, based on race, ethnicity, gender, affecional orientation, class, or other stigmatizing characteristics are emphasized. PREREQ: SOCWRK 512.

**SOCWRK 525 ADVANCED SOCIAL WORK INTERVENTIONS II: INDIVIDUALS AND FAMILIES** (3-0-3) (S).

This is the second practice course in the concentration year of the MSW program. Builds and expands upon knowledge gained through successful completion of all prior courses. Designed to provide students the opportunity to enhance practice skills necessary to provide effective assessment and intervention techniques regarding the more general issues and disorders, which are frequently seen by social workers, such as child maltreatment, substance abuse, and mental health. PREREQ: SOCWRK 550. COREQ: SOCWRK 576.

**SOCWRK 526 THE EVALUATION AND TREATMENT OF MENTAL DISORDERS** (3-0-3) (F).

Prepares students to conduct systematic biopsychosocial assessments, formulate differential diagnostic impressions in accordance with the Diagnostic and Statistical Manual of Mental Disorders (DSM), and recommend treatment plans informed by the state of the art. Championing the development of robust helping relationships that empower consumers by building on assets and strengths, students are taught to monitor
their practice for bias related to affectional orientation, disability, ethnicity, gender, race, and spirituality. PREREQ: SOCWRK 504 or admission to Advanced Standing MSW Program.

SOCWRK 530 FOUNDATIONS OF RESEARCH I (2-0-2)(F). This is the first of a two-course sequence on foundations of research and analysis. It is designed to provide students with the knowledge base and skills for using scientific method to advance social work practice, knowledge, and theory. The course covers quantitative and qualitative methods. Content includes conceptualization, operationalization, design, sampling, measurement, data collection, use of results, and ethical considerations including how research affects diverse populations. PREREQ: Admission to MSW Program.

SOCWRK 531 FOUNDATIONS OF RESEARCH II (2-0-2)(S). This is the second course in a two-course sequence on foundations of research and analysis. This course focuses on methods of analysis, and implications of quantitative and qualitative data to advance social work practice, knowledge, and theory. Students learn to use and interpret various statistical procedures for analyzing quantitative data, including univariate, bivariate, and multivariate analysis, and analysis for qualitative data. Students apply analytic techniques using computer software applications. PREREQ: SOCWRK 530.

SOCWRK 532 ADVANCED RESEARCH: PROGRAM AND PRACTICE EVALUATION (3-0-3)(F). This course builds on basic understanding of quantitative and qualitative research methods and analysis. Students gain knowledge and skills to use appropriate research methods for empirically based knowledge building and to enhance program and practice effectiveness. Content includes single system and group design and formative and summative evaluation of program and program practice. The course is intended to prepare students to participate in and utilize outcome evaluation of practice in their agency settings. Students complete an evaluation project in this course in conjunction with their advanced practicum placement. PREREQ: Admission to MSW Program or SOCWRK 530 and SOCWRK 531. COREQ: SOCWRK 535.

SOCWRK 550 ADVANCED INTERVENTIONS I: COMPARATIVE THEORIES (3-0-3)(F). This is the first practice course in the concentration year of the MSW Program, which focuses on individuals and families. This course builds upon the generalist foundation and advances student knowledge of theoretical frameworks used in social work practice to bring about change with individuals and families. Students will examine practice implications of different theoretical frameworks with particular attention to the efficacy of those theoretical and practice models with oppressed and at-risk populations. In addition, empirically based interventions, critical aspects of the therapeutic relationship, which promote growth and bring about change, and the application of social work values and evaluation of practice are areas of focus. PREREQ: Admission to Advanced Standing MSW Program or SOCWRK 503, SOCWRK 504, and SOCWRK 515. COREQ: SOCWRK 575.

SOCIAL WORK 570 FOUNDATION FIELD WORK I (0-15-2)(F). This foundation practicum provides students with a supervised social work practice experience in a social service agency under the direct supervision of a licensed social worker. It includes experiential learning in direct practice with individuals and families. (Pass/Fail.) PREREQ: SOCWRK 572 or admission to the MSW Advanced Standing Program. COREQ: SOCWRK 577.

SOCWRK 571 (COUN 571) (MHLTHSCI 571) FUNDAMENTALS OF HEALTHY AGING (3-0-3)(F). Overview of gerontology presented by examining major issues related to aging. Content includes theories of aging; the impact of an aging population; and future implications at local, national, and international levels. May be taken as COUN, MHLTHSCI or SOCWRK credit, but only for one department.

SOCWRK 572 FOUNDATION FIELD WORK II (0-15-2)(S). Continuation of SOCWRK 570. PREREQ: SOCWRK 503, SOCWRK 570, and admission to the MSW Two Year Program. COREQ: SOCWRK 504 and SOCWRK 574.

SOCWRK 573 FOUNDATION PRACTICUM SEMINAR I (1-0-1)(F). Integrative seminar that facilitates development of professional self. PREREQ: Admission to the MSW Two Year Program. COREQ: SOCWRK 503 and SOCWRK 570.

SOCWRK 574 FOUNDATION PRACTICUM SEMINAR II (1-0-1)(S). Continuation of SOCWRK 573. PREREQ: SOCWRK 503, SOCWRK 570, and admission to the MSW Two Year Program. COREQ: SOCWRK 504 and SOCWRK 572.

SOCWRK 575 ADVANCED SOCIAL WORK PRACTICUM I (0-20-5)(F). Provides students with a supervised social work practice experience in a social service agency under the direct supervision of a licensed social worker. Includes experiential learning in direct practice with individuals and families. (Pass/Fail.) PREREQ: SOCWRK 572 or admission to the MSW Advanced Standing Program. COREQ: SOCWRK 577.


SOCWRK 577 ADVANCED PRACTICUM SEMINAR I (1-0-1)(F). Integrative seminar that facilitates development of advanced direct social work practice knowledge, skills and values with individuals and families. PREREQ: SOCWRK 572 or admission to the MSW Advanced Standing Program. COREQ: SOCWRK 575.


SELECTED TOPICS:

SOCWRK 580 SOCIAL WORK WITH DIVERSE POPULATIONS.
SOCWRK 581 SOCIAL WORK WITH FAMILIES.
SOCWRK 582 SOCIAL WORK WITH THE ELDERLY.
SOCWRK 583 SOCIAL WORK WITH SPECIAL NEEDS POPULATIONS.
SOCWRK 584 SOCIAL WORK WITH CHILDREN AND YOUTH.
SOCWRK 585 ADVANCED SOCIAL WORK PRACTICE WITH ORGANIZATIONS AND COMMUNITIES.
SOCWRK 586 SOCIAL WORK WITH GROUPS.
SOCWRK 587 SOCIAL WORK SUPERVISION.
SOCWRK 594 CONFERENCE OR WORKSHOP.
SOCWRK 595 READING AND CONFERENCE.
SOCWRK 596 INDEPENDENT STUDY.
SOCWRK 597 SPECIAL TOPICS.
SOCWRK 696 DIRECTED RESEARCH.
General Information
Interdisciplinary graduate programs cross boundaries and involve faculty members from more than one discipline.

Interdisciplinary Programs Offered
• Master of Science in Hydrologic Sciences
• Master of Arts in Interdisciplinary Studies
• Master of Science in Interdisciplinary Studies
• Master of Science in Materials Science and Engineering
• Master of Engineering in Materials Science and Engineering
• Graduate Certificate in Addiction Studies
• Graduate Certificate in Gerontological Studies

Master of Science in Hydrologic Sciences
College of Arts and Sciences
Department of Geosciences
Graduate Program Coordinator: James McNamara
Math/Geosciences Building, Room 225, Mail Stop 1535
Telephone (208) 426-1581
FAX (208) 426-4061
e-mail: jmnamara@boisestate.edu
http://earth.boisestate.edu

Department of Biological Sciences
Contact: Kevin Feris
Science/Nursing Building, Room 226, Mail Stop 1515
Telephone (208) 426-5498
FAX (208) 426-1040
e-mail: kevinferis@boisestate.edu
www.boisestate.edu/biology/

College of Engineering
Department of Civil Engineering
Contact: Molly Gribb
Engineering Technology Building, Room 201C, Mail Stop 2075
Telephone (208) 426-3764
FAX (208) 426-4800
e-mail: mgribb@boisestate.edu
http://coen.boisestate.edu

Graduate Faculty: Warren Barrash, Shawn Benner,
Paul Dawson, Kevin Feris, Molly Gribb, Jodi Mead,
James McNamara, Sondra Miller, George Murgel, Jennifer Pierce,
Venkataramana R. Sridhar, Walter Snyder, David Wilkins

General Information
The program leading to the degree of Master of Science (M.S.) in Hydrologic Sciences requires completion of a core curriculum in the hydrologic sciences, elective courses chosen to meet student goals, and original research that culminates in a publicly defended thesis. The emphasis is on the scientific principles governing the movement of water and water-borne material through natural systems, the interaction of water with geological and biological systems, and tools to quantify and predict those movements and interactions. Participation by faculty members from both the Department of Geosciences and the Department of Civil Engineering provides enriched delivery of courses and enhanced student guidance.

Graduate Teaching and Research Fellowships
Graduate fellowships including tuition and fee waivers are funded from three sources: appropriated state funds, endowments, and research grants and contracts. Applicants to the M.S. in Hydrologic Science program who submit all documents required by the admission procedure by February 1 of any given year will be considered for a state appropriated or endowed graduate fellowship to start the following fall semester. Information on graduate fellowships funded by research grants and contracts is available from the coordinator of the graduate program in hydrologic science. Prospective students are encouraged to contact individual faculty members for further information about research projects.

Student Guidance
The graduate program coordinator will assign a temporary faculty advisor to each student prior to the first semester of enrollment. By the end of the first semester, the advisor, in consultation with the student, will initiate the appointment of a three-person supervisory committee that will assume responsibility for student guidance.

Application and Admission Requirements
An applicant must follow the general application procedures for admission to a graduate program (see Graduate Admission Regulations). Applicants are required to have a baccalaureate degree in a science or engineering discipline from an accredited college or university, and undergraduate courses equivalent to one year each of calculus, chemistry, and calculus-based physics. An applicant must also provide GRE General Test scores, three letters of recommendation from academic faculty, a letter of intent outlining goals for graduate study, and a course summary form; detailed instructions may be obtained on the internet at http://earth.boisestate.edu/GraduatePrograms/index.htm, or from the graduate program coordinator. Once the file for an applicant is complete, it will be evaluated and an admission recommendation (regular, provisional, or denial) will be forwarded to the graduate dean. The graduate dean will make the final admission decision and notify the applicant. Admission is competitive and is not guaranteed to any applicant.
Degree Requirements

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOS 598 Graduate Seminar</td>
<td>1</td>
</tr>
<tr>
<td>Hydrologic Sciences Core (2 of the following 3 courses)</td>
<td>6</td>
</tr>
<tr>
<td>GEOS 512 or CE 512 Hydrogeology</td>
<td>3</td>
</tr>
<tr>
<td>GEOS 516 or CE 516 or GEOPH 516 Hydrology</td>
<td>3</td>
</tr>
<tr>
<td>GEOS 526 or CE 526 Aqueous Geochemistry</td>
<td>3</td>
</tr>
<tr>
<td>Electives Approved by the Supervisory Committee</td>
<td>17</td>
</tr>
<tr>
<td>Culminating Activity</td>
<td>6</td>
</tr>
<tr>
<td>TOTAL</td>
<td>30</td>
</tr>
</tbody>
</table>

Course Offerings

GEOS—GEOSCIENCE

GEOS 511 ADVANCED ENVIRONMENTAL GEOLOGY (3-0-3)(S). Land-use planning, techniques for investigation of surficial materials and water resources. Geologic hazards, surficial deposits and their engineering and hydrologic properties, ground and surface water, waste disposal. Term reports required, field trips required. PREREQ: GEOS 221 or PHYS 220.

GEOS 512 HYDROGEOLOGY (CE 512)(3-0-3)(F). The study of subsurface water and its relationship to surface water, the hydrologic cycle, and the physical properties of aquifer systems. Flow nets and flow throughporous and fractured media. Methods of determination of aquifer characteristics and performance and groundwater modeling. PREREQ: MATH 175.

GEOS 516 (CE 516)(GEOPH 516) HYDROLOGY (3-0-3)(S). Interdisciplinary earth science concerned with movement and occurrence of water. Watershed-based hydrologic phenomena including hydrologic cycle, water-cycle analysis, precipitation, evapotranspiration, snowmelt, streamflow, floods, routing and surface runoff events. Application of analytical techniques to solve water resource problems. May be taken for CE, GEOPH, or GEOS credit, but not in more than one department. PREREQ: MATH 175 or PERM/INST.

GEOS 517 WATERSHED PROCESSES (3-0-3)(F). In this course we will investigate the theoretical and empirical foundations of physical processes that govern the morphology of watersheds focusing on hillslope and fluvial processes. Our objective is to extract basic physical concepts from laws and equations that are used to describe and model various geomorphic phenomena. The course will involve a mix of lectures, student-led discussion, and fieldwork. PREREQ: GEOS 313, MATH 175, PHYS 211.

GEOS 518 HYDROLOGIC ANALYSIS (3-0-3)(F)(Alternate Years). An overview of applied hydrologic techniques useful to scientists and engineers. Topics include hydrologic modeling, frequency analysis, and watershed assessment. PREREQ: GEOS 416 or PERM/INST.

GEOS 523 ADVANCED GEOMORPHOLOGY (3-0-3)(F/S). Study of Quaternary dating methods, applications of geomorphology to environmental problems, mapping and landscape analysis using GIS, soils, geomorphic response to Quaternary climate change, and climatic, tectonic and autogenic controls on geomorphic processes. Field trips and a field-based research project required. PREREQ: PERM/INST.

GEOS 526 (CE 526) AQUEOUS GEOCHEMISTRY (3-0-3)(F/S). Basic tools and topics of aqueous geochemistry with an emphasis on low temperature processes in natural waters. Essentials of thermodynamics, kinetics, aqueous speciation, mineral-water interaction, and elemental cycling in the context of surficial earth processes and environmental challenges. May be taken for CE or GEOS credit, but not both. PREREQ: PERM/INST.

GEOS 530 (CE 530) VADOSE ZONE HYDROLOGY (3-0-3)(F). Laboratory and field methods for characterizing physical and hydraulic properties of soils, solution of variably saturated flow problems using analytical and numerical techniques. Computer simulations of flow and transport in variably saturated soils. May be taken for CE or GEOS credit, but not both. PREREQ: CE 412, or GEOS 412, or CE 512, or GEOS 512, or PERM/INST.

GEOS 533 (CE 533) CONTAMINANT TRANSPORT (3-0-3)(S). The fate and transport of dissolved solutes and non-aqueous phase liquids in groundwater systems. Students will analyze field data and develop conceptual models for contaminated sites. The role of engineers and hydrologists in environmental litigation will be addressed through case studies. May be taken for CE or GEOS credit, but not both. PREREQ: CE 412, or CE 512, or GEOS 412, or GEOS 512, or PERM/INST.

GEOS 570 (GEOG 570) EARTH SYSTEM SCIENCE AND GLOBAL WARMING (3-0-3)(F/S). Survey of interactions among physical biogeochemical processes involved in climate and climate feedback. Explore in detail scenarios of global warming for the next century and their reliability. PREREQ: PERM/INST.

GEOS 605 TOPICS IN GEOMORPHOLOGY (3-0-3)(F/S). Topical investigation of geomorphic processes, including the influences of geology, hydrology, biology, climate, tectonics, and time on landscape evolution and ecosystems development. Includes field investigations. May be repeated for credit. PREREQ: PERM/INST.

GEOS 623 (CE 623)(GEOPH 623) ADVANCED HYDROGEOLOGY (3-0-3)(F). Treatment of groundwater occurrence and flow theory fundamental mechanisms, hydrologic parameters, flow regimes and systems, geologic controls. May be taken for CE, GEOPH, or GEOS credit, but not for more than one department. PREREQ: MATH 275, MATH 333, and GEOS 412 or GEOS 412 or CE 412 or CE 512, or PERM/INST.

GEOS 642 (CE 642)(GEOPH 642) APPLIED HYDROLOGY (3-0-3)(S). Quantitative determination of hydrologic parameter values and groundwater flow conditions. Conceptual models and geomorphic context, boundary condition, analytical and numerical solution techniques, measurement methods, applications to engineering and environmental problems. May be taken for CE, GEOPH, or GEOS credit, but not for more than one department. PREREQ: CE 623 or GEOPH 623 or GEOS 623 or PERM/INST.

GEOS 651 BIOGEOCHEMICAL CYCLES (3-0-3)(F). A detailed investigation of the global cycling of elements and water and the coupled physical, chemical and biological processes and controls. PREREQ: PERM/INST.

GEOS 653 GROUNDWATER MICROBIOLOGY (3-0-3)(F/S). An exploration of the interface of microbiology and hydrogeology and aqueous geochemistry with an emphasis microbial processes and ecology and redox transformations produced by natural and contaminant-related disequilibrium in the subsurface. PREREQ: PERM/INST.

GEOS 655 COUPLED BIOGEOCHEMICAL KINETICS AND TRANSPORT (3-0-3)(F/S). A detailed investigation of the smaller scale (kilometer to micrometer) flow of elements and water through coupled physical, chemical and biological processes, with an emphasis on the interplay of mass and energy transfer rates and biogeochemical kinetic constraints. PREREQ: PERM/INST.

GEOS 657 REACTIVE TRANSPORT MODELING (3-0-3)(F/S). The application of geochemical and reactive transport computer codes to coupled flow and reactive transport problems with an emphasis on subsurface systems. PREREQ: PERM/INST.
Interdisciplinary Programs
Master of Arts or Science in Interdisciplinary Studies

Master of Arts in Interdisciplinary Studies

Master of Science in Interdisciplinary Studies

Director: Daryl Jones
College of Arts and Sciences
Education Building, Room 601, Mail Stop 1500
Telephone (208) 426-1414
FAX (208) 426-3006
e-mail: ids@boisestate.edu

General Information
Boise State University offers a Master of Arts/Master of Science degree program in Interdisciplinary Studies. In consultation with faculty, students may combine courses from more than one college or more than one department to create an individualized program of educational experience. The program is designed for mature students who wish to continue education at the graduate level but do not seek specialized training in a major area. The program is not a substitute for the traditional master’s degree; rather, it is intended for students with broader interests in several fields or those whose career goals do not match fully with a single, identifiable academic unit or department. Emphasis is placed on continued intellectual and cultural development in a constantly changing society where new intellectual and career interests may extend over several traditional specializations.

The Interdisciplinary Studies (IDS) Program is administered by the Graduate College, housed in the College of Arts and Sciences, and directly supervised by the Director of Interdisciplinary Studies. A university-wide Interdisciplinary Studies Committee consists of the Graduate Dean and one member from each academic College appointed by the respective Deans. The Director of Interdisciplinary Studies serves as the chair of that committee and oversees the program. Each student in the program also has a graduate committee composed of three faculty members from the disciplines making up the student’s interdisciplinary program. The student’s graduate committee has the responsibility of helping the student select a particular program of study and recommends to the Interdisciplinary Studies Committee that it be accepted as the student’s formal plan of study, thereby indicating that the members of the committee regard it as a viable program of graduate study. The Interdisciplinary Studies Committee is responsible for approving the members of the proposed graduate committee and for deciding whether to approve the student’s plan of study.

Application and Admission Requirements
A prospective student must first satisfy general admission requirements and complete the process for admission to the Graduate College, as described in the Graduate Admission Policies and Procedures section of the Boise State University Graduate Catalog. General admission to the Graduate College does not guarantee admission to a graduate program in Interdisciplinary Studies. For admission to the MA or MS Program in Interdisciplinary Studies, a student must meet the following requirements:

1. A cumulative GPA in all prior college level work of at least 3.0 (although students who fall below this requirement but who have a cumulative GPA of at least 3.25 for the most recent 60 credit hours will also be considered).

2. Successful completion of the IDS Program’s application process, which includes:
   a. meeting with the IDS Program Director to discuss expectations and be advised as to the remainder of the application process,
   b. selection of a graduate committee composed of 3 graduate faculty members, one of whom is to serve as committee chair,
   c. meeting with graduate committee to discuss and prepare a degree plan,
   d. submission of a completed Personal Data form,
   e. submission of a completed form stating committee has met and approved that degree plan,
   f. submission of a degree plan and three-page written statement of justification which:
      • states intellectual, professional, or vocational reasons for requesting entry into the program;
      • explains why traditional degree programs do not meet the applicant’s needs; and
      • justifies the selection of courses in relation to the conception of the individualized program as a whole.
   g. submission of two letters of recommendation,
   h. approval of the graduate committee and degree plan by the university-wide IDS Committee.

Although each applicant’s prior academic record will be examined to determine whether there are compelling reasons for making an exception, normally the Interdisciplinary Studies Committee will not consider proposed degree plans from students who fail to meet requirement 1). Applicants who wish to submit additional supporting materials such as GRE scores, letters of recommendation, or a preliminary description of their proposed program of study may do so. Letters of recommendation and preliminary program descriptions should be sent directly to the Director of the IDS Program.

Applications to the IDS Program are considered only twice a year, in October and in March. Application materials as described above must be submitted by October 1 for processing during the fall semester or by March 1 for processing during the spring semester.

Applicants are strongly encouraged to submit completed IDS application materials by March 1st or October 1st of the semester prior to the semester of proposed entry into the program, so as to avoid commencing course work which may not be accepted as part of an approved degree plan. The student’s graduate committee and degree plan must be approved before the completion of more than 6 credits toward the program.
Degree Requirements

Each program is developed individually according to the student’s interests and background but must be intellectually defensible and clearly interdisciplinary in nature. In addition to any Graduate College requirements not mentioned here, the requirements of the IDS Program are as follows:

1. Course work must be selected from a minimum of two academic areas.
2. No more than 6 credits of work completed prior to approval of the degree plan by the IDS Committee may be included in the program.
3. No more than 11 credits of 300G or 400G courses may be applied toward the program.
4. No more than 9 transfer credits may be included in the program.
5. No more than 9 credits of independent study (596) may be included in the program.
6. Courses may not be challenged for credit.
7. The degree will consist of a total of no less than 33 credits, of which no more than 16 credits may be earned in the College of Business. Students may select (with IDS Committee approval) from a thesis/project option or a written examination option. The thesis/project will carry 6 credits. Under either option, the student will be required to draw critically upon the two or more disciplines studied and to integrate disciplinary insights.
8. Students completing the thesis/project option will, upon completion of that option, meet with their 3-person graduate committee for a final review of the thesis or project.
9. Students completing the examination option will take a written examination prepared by their 3-person graduate committee, with whom they will subsequently meet for a review of results.
10. Minor revisions to the plan of study may be approved by the Director of Interdisciplinary Studies upon the recommendation of the student’s graduate advisor; major changes must be approved by the university-wide IDS Committee.
11. All work toward the MA/MS degree in Interdisciplinary Studies must be completed within a period of seven years.

Course Offerings

INTDIS—INTERDISCIPLINARY STUDIES

INTDIS 591 PROJECT (0-V-6). Students are expected to draw critically upon the two or more disciplines studied and to integrate disciplinary insights. Before beginning the Project, a prospectus must be approved by the student’s graduate committee. After its completion, the Project must be defended at an oral examination scheduled by the graduate advisor. PREREQ: Admission to candidacy.

INTDIS 593 THESIS (0-V-6). A Thesis must reflect scholarly integration of the two or more disciplines studied and demonstrate original research or new and logical interpretation of existing data. Before beginning the Thesis, a prospectus must be approved by the student’s graduate committee. After its completion, the Thesis must be defended at an oral examination scheduled by the graduate advisor. PREREQ: Admission to candidacy.

Master of Science in Materials Science and Engineering

College of Engineering

Department of Materials Science and Engineering

Graduate Program Coordinator: Peter Müllner

Micron Engineering Center, Room 302F, Mail Stop 2075
Telephone (208) 426-5136
FAX (208) 426-2470
e-mail: peter.mullner@boisestate.edu

Engineering Graduate Faculty: Darryl Butt, Janet Callahan, Kris Campbell, Sean M. Donovan, Megan Frary, Will Hughes, William Knowlton, Amy Moll, Peter Müllner, Rick Ubic, Bernard Yurke

Physics Graduate Faculty: Charles Hanna, Byung-Ill Kim, Alex Punnoose, Dmitri Tenne

Chemistry and Biochemistry Graduate Faculty: Eric Brown, Henry Charlier, Jeunghoon Lee, Owen, McDougal, Jeff Peloquin, Dale Russell, Martin Schimpf, Don Warner

Biological Sciences Graduate Faculty: Julia Thom Oxford

General Information

The Department of Materials Science and Engineering offers two distinct graduate degree programs. The program leading to the Master of Science in Materials Science and Engineering (M.S. MSE) is a thesis-based program designed to prepare students for research and development and further study at the doctoral level. The program leading to the Master of Engineering in Materials Science and Engineering (M.Engr. MSE) is a non-thesis program with a focus on professional development. Both programs are interdisciplinary and involve faculty members from the College of Engineering and the College of Arts and Sciences with expertise in electrical engineering, mechanical engineering, physics, chemistry, and biology.

Admission and Application Requirements

Admission Requirements. An applicant must satisfy the minimum admission requirements of the Graduate College. In addition, the applicant must hold a baccalaureate degree in engineering from an ABET-accredited program or a baccalaureate degree in physics or chemistry, and must follow the application procedures specified below. Admission is competitive and the achievement of minimum requirements does not guarantee admission.

Application Procedures. A prospective student may apply at any time and should follow the general graduate application procedure for degree-seeking students (see Applying as a Degree-Seeking Student in this catalog). The applicant must also 1) submit a statement of purpose to the graduate program coordinator, 2) have three letters of recommendation submitted directly by the references to the graduate program coordinator, and 3) arrange to have GRE
Interdisciplinary Programs

Master of Science in Materials Science and Engineering

General Test scores submitted by the Educational Testing Service (www.ets.org) directly to Boise State University (code R4018). The statement of purpose should give the educational and professional background of the student and his or her motivation for graduate study including career goals. Once the applicant’s file is complete, it will be evaluated by the Materials Science and Engineering Graduate Studies Committee and an admission recommendation (regular, provisional, or denial) will be forwarded to the Dean of the Graduate College. In order to ensure proper mentoring of all graduate students, a recommendation for regular or provisional admission will not be forwarded unless a faculty member of the Department of Materials Science and Engineering is available to serve as the major advisor. The graduate dean will make the final admission decision and notify the applicant and the Materials Science and Engineering Graduate Studies Committee.

Advisor and Supervisory Committee

The Materials Science and Engineering Graduate Studies Committee will initiate the assignment of a supervisory committee for each admitted student. The supervisory committee will include a major advisor who serves as chair and at least two additional members appointed such that the committee contains a representative from the College of Engineering and from the College of Arts and Sciences. The role of the supervisory committee is to guide the student in all aspects of his or her graduate study.

Degree Requirements

Students must complete at least 30 graduate credits distributed as shown in the degree requirements table. A written thesis proposal and oral presentation to the supervisory committee is required prior to the completion of 15 credits applicable to the degree requirements. Work on the thesis can only be undertaken after approval of the thesis proposal by the supervisory committee. The thesis must constitute an original contribution to knowledge in materials science and engineering and must be successfully defended at a final oral examination. All work directly related to the thesis must be represented by at least 6 credits of MSE 593, PHYS 593, or CHEM 593.

<table>
<thead>
<tr>
<th>Master of Science in Materials Science and Engineering</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Course Number and Title</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Required Courses</strong></td>
<td></td>
</tr>
<tr>
<td>MSE 505 Bonding and Structure of Materials</td>
<td>3</td>
</tr>
<tr>
<td>MSE 508 Solid State Thermodynamics</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 515 Solid State Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 523 Physical Methods of Materials Characterization</td>
<td>3</td>
</tr>
<tr>
<td><strong>Other Graduate Courses</strong></td>
<td></td>
</tr>
<tr>
<td>Graduate courses in materials science and engineering or related field; all courses to be selected with student input and approved by the supervisory committee.</td>
<td>11</td>
</tr>
<tr>
<td><strong>Thesis</strong></td>
<td></td>
</tr>
<tr>
<td>MSE 593 Thesis OR</td>
<td>6</td>
</tr>
<tr>
<td>PHYS 593 Thesis OR</td>
<td></td>
</tr>
<tr>
<td>CHEM 593 Thesis (P/F)</td>
<td></td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>30</td>
</tr>
</tbody>
</table>

Special Rule on Transfer Credit. The normal transfer credit policies of the Graduate College hold except that up to 15 transfer credits earned in combination at the University of Idaho and Idaho State University may be applied to either degree program (M.S. MSE or M.Eng. MSE) with the approval of the supervisory committee.

Course Offerings

**CHEM—CHEMISTRY**

CHEM 501 ADVANCED INORGANIC CHEMISTRY (3-0-3)(F). Atomic structure, molecular structure using valence bond and molecular orbital theories, elementary group theory, transition metal coordination chemistry, acids and bases, descriptive transition and nontransition metal chemistry. PREREQ: CHEM 322 or PERM/INST.

**ECE—ELECTRICAL AND COMPUTER ENGINEERING**

ECE 540 INTRO TO INTEGRATED CIRCUIT AND MEMS PROCESSING (3-0-3)(F). Fundamentals of integrated circuit and micro electromechanical systems (MEMS) fabrication technology; semiconductor substrates; theory of unit processes such as diffusion, oxidation, ion implantation, rapid thermal processing, photolithography, wet etching and cleaning, dry etching, thin-film deposition; chemical mechanical polishing; process integration; metrology;
statistical process control; TCAD. COREQ: ECE 540L. PREREQ: ECE 323 or
PERM/INST.

ECE 540L INTRO TO INTEGRATED CIRCUIT AND MEMS
PROCESSING LAB (0-3-1)(F). Semiconductor cleanroom practices; heavy
lab safety; students will fabricate and test simple structures in lab; application
of TCAD to practical problems. COREQ: ECE 540.

ECE 542 PHOTOLITHOGRAPHY (3-0-3)(F/S). Principles of optics, diffraction,
interference, superposition of waves, imaging systems, fundamentals of microphotography, resolution, contact and projection
lithography, photoresist processing, metrology. Phase shift masks, anti-
reflective coatings, deep-ultraviolet lithography, off-axis annular illumination.
Use of TCAD lithography simulation software. COREQ: ECE 442.

ECE 542L PHOTOLITHOGRAPHY LAB (0-3-1)(F). Cleanroom lab
experience accompany ECE 542, utilizing a projection-printing wafer stepper,
photore sist wafer track, SEM, and optical metrology equipment. Use of TCAD
lithography simulation software. PREREQ: ECE 542. COREQ: ECE 542.

MSE—MATERIALS SCIENCE AND ENGINEERING

Application of the principles of chemistry and physics to the engineering
properties of materials. Development of an in-depth understanding of the
relationship between structure, properties, processing and performance for all
classes of materials. PREREQ: PERM/INST.

MSE 505 BONDING AND STRUCTURE OF MATERIALS (3-0-3)(F/S).
Bonding, atomic arrangements and crystal structures of metals, ceramics,
electronic materials and polymers; electronic structure of solids; physical
properties of solids; defects in solids; relationship between processing,
microstructure and properties of materials. PREREQ: ENGR 320 or MSE 308 or
PHYS 432.

MSE 508 SOLID STATE THERMODYNAMICS (4-0-4)(S). The laws of
thermodynamics are applied to multicomponent, multiphase reacting systems,
and other thermodynamic systems. These concepts are used to discuss and
mathematically compute equilibrium phase diagrams. The energy effects due
to the geometry of solid surfaces are discussed in regards to capillarity effects.
Classical thermodynamics is related to atom-level distributions using statistical
thermodynamics and the partition function. Electrochemical thermodynamics
is discussed in the context of two phase interfacial reactions. PREREQ:
MATH 333, CHEM 322 or ENGR 320 or MSE 308 or PHYS 432.

MSE 510 ELECTRICAL, OPTICAL, AND MAGNETIC PROPERTIES
OF MATERIALS (3-0-3)(F/S). Introduction to the physical principles underlying
the electric, optical and magnetic properties of modern solids. Crystalline
and energy band structure of materials, thermal properties and electrical
conduction in semiconductors and metals, optical and magnetic properties of
solids are covered. PREREQ: ENGR 245.

MSE 511 SEMICONDUCTOR MATERIALS (3-0-3)(F/S). Examination of the
physical properties of semiconductors including electronic structure, free
carrier statistics, optical properties, crystallography, and defects. Study of
thermodynamic properties as related to lattice vibrations and diffusion.
PREREQ: ENGR 245.

MSE 512 MECHANICAL PROPERTIES OF MATERIALS (3-0-3)(F/S).
Study of deformation and fracture in engineering materials, including elastic
and plastic deformations; dislocation theory; alloy hardening and creep
deformation; fracture mechanisms; linear elastic and nonlinear elastic fracture
mechanics; toughening of metals, ceramics, and composites; environmentally
assisted failure. PREREQ: ENGR 245.

MSE 518 PHASE TRANSFORMATIONS AND KINETICS (3-0-3)(F).
Kinetics of phase transformations, nucleation, crystallization, decomposition,
chemical reactions, and atomic and molecular diffusion. Surface and interface
phenomenon, nanoparticle-matrix interactions, sintering, grain growth,
recovery and recrystallization. PREREQ: MSE 308 or MSE 508.

MSE 521 INTRODUCTION TO ELECTRON MICROSCOPY (2-2-3)(S).
Theory and practice of scanning electron microscopy (SEM) and transmission
electron microscopy (TEM), including electron optics, contrast mechanisms,
diffraction theory, chemical analysis techniques, and sample preparation.
Some understanding of crystallography is recommended. Applications of SEM
and TEM in materials science and engineering will be covered. PREREQ:
MSE 305 or MSE 505.

MSE 522 ADVANCED TRANSMISSION ELECTRON MICROSCOPY
(1-3-2)(F). In-depth understanding of the transmission electron microscope
(TEM), electron diffraction, imaging techniques, analytical techniques, and
high-resolution electron microscopy (HREM). Students are required to have an
approved project that utilizes the TEM. PREREQ: MSE 241 or MSE 521.

MSE 528 INTERFACES AND DISLOCATION BEHAVIOR (3-0-3)(S)(Even
years). Structure of interfaces as groups of line defects including dislocations,
disconnections, and disclinations; application of general concepts to special
situations including epitaxial interfaces, twin boundaries and phase
transformations. PREREQ: MSE 305 or MSE 505.

MSE 549 ADVANCED TOPICS IN MATERIALS SCIENCE AND
ENGINEERING (1-0-3)(F/S)(On demand). Selected advanced topics from
current research in Materials Science and Engineering such as defects in
solids, physics of thin films, nanomaterials, optoelectronics, computational
materials science, corrosion, reliability physics. PREREQ: ENGR 245.

MSE 561 MICROELECTRONIC PACKAGING MATERIALS (3-0-3)(F/S).
Engineering analysis of electronic packaging materials and their affect on
electrical design, assembly, reliability, and thermal management. Selection
process for packaging materials, manufacturing and assembly, single and
multi-chip packaging. PREREQ: ENGR 245.

MSE 565 APPLICATIONS OF MATHEMATICA FOR MATERIALS
SCIENCE AND ENGINEERING (1-0-1)(F/S). The basics of using
Mathematica software to solve problems in Materials Science and Engineering.
PREREQ: ENGR 245 and MATH 175.

MSE 577 (BIOL 577)(ME 577) BIOMATERIALS (3-0-3)(F/S). Theory of
biomaterials science. Medical and biological materials and their applications.
Selection, properties, characterization, design and testing of materials used by
or in living systems. May be taken for BIOL, ME or MSE credit, but only from
one department. PREREQ: ENGR 245 or CHEM 112.

MSE 588 BIOMATERIALS (3-0-3)(F). Theory of environmental degradation
of metals, ceramics, polymers and biomaterials. The scientific principles of
materials degradation with emphasis on material interactions within a living
organism (in vivo). PREREQ: CHEM 112 or ENGR 245.

PHYS—PHYSICS

PHYS 512 INTRODUCTORY QUANTUM MECHANICS (3-0-3)(F/S).
Introduction to fundamentals of quantum mechanics, including Schroedinger
equation, energy levels, angular momentum, electron spin, perturbations, and
scattering. Applications such as tunneling, orbitals, magnetic resonance, and
nanoscale effects. PREREQ: PHYS 305.

PHYS 515 SOLID STATE PHYSICS (3-0-3)(F/S). Quantum physics applied to
understanding the properties of materials, including semiconductors,
metals, superconductors, and magnetic systems. PREREQ: PHYS 305.

PHYS 523 PHYSICAL MEASUREMENTS (3-0-3)(S). Quantum physical
techniques and principles of the measurement process used to determine the
physical properties of materials. Course topics will include optical, electron,
and mass spectrometers, diffraction, surface analysis, optical spectroscopy,
electrical transport, and magnetometry. Individual project work will focus on
the application of an analytical technique to solve a specific problem. PREREQ:
PHYS 309 or PERM/INST.

PHYS 530 OPTICS (3-0-3). Geometrical and physical optics, including
lenses, fiber optics, Fourier optics, polarization, interference, diffraction,
and holography. PREREQ: PHYS 212, MATH 333. COREQ: PHYS 534.

PHYS 532 THERMAL PHYSICS (3-0-3)(S). Discussion of temperature,
work, specific heat, and entropy. The laws of thermodynamics are discussed
and applied to physical problems. Ideal gases, statistics, Gibbs free energy,
and cryogenic. Work on heat transfer of lattice vibrations and phonons will be
required. PREREQ: Graduate standing or PERM/INST.

PHYS 534 OPTICS LABORATORY (0-3-1). Laboratory to be taken
concurrently with PHYS 530. Experiments in optics, including optical systems,
thick lenses, interference, diffraction, Fourier optics, image processing, and
holography. COREQ: PHYS 530.

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Graduate Certificate in Addiction Studies
College of Education
Department of Counselor Education
Contact: Ken Coll
Education Building, Room 614, Mail Stop 1721
Telephone (208) 426-1821
e-mail: kcoll@boisestate.edu

College of Health Sciences
Master of Health Science Program
Graduate Program Coordinator: Theodore McDonald
Health Science Riverside, Room 122, Mail Stop 1835
Telephone (208) 426-2452
e-mail: tmcdonal@boisestate.edu
http://hs.boisestate.edu/MHS

General Information
The Graduate Certificate in Addiction Studies is an interdisciplinary program offered by the Department of Counselor Education (College of Education), and the Master of Health Science Program (College of Health Sciences). The postgraduate certificate is designed for professionals employed in substance abuse education, prevention or intervention settings. The goal of the certificate program is to prepare students for a variety of positions in the addiction field. The graduate certificate meets the didactic experiences required to become a nationally credentialed Master Addictions Counselor (MAC if holding a Master’s in Counseling), and an Idaho Certified Alcohol and Drug Counselor (CADC) or Advanced Certificate Alcohol and Drug Counselor (ACACD, if holding a related graduate degree).

Admission and Application Requirements
Admission Requirements Applicants are required to have a baccalaureate degree from an accredited institution, to have completed COUN 545/MHLTHSCI 545 Foundations of Chemical Dependency or its equivalent, and must have achieved a cumulative undergraduate GPA of at least 3.00 on a 4.00 scale. However, these minimum requirements do not guarantee admission to the program. Admission recommendations will be based upon a review of the student’s transcripts and resume, letters of reference, Statement of Purpose, and interview.

Application Procedures An applicant should follow the general application procedures for graduate degree-seeking students (see Applying as a Degree-Seeking Student in the Graduate Admission Policies and Procedures section of this catalog). In addition, an applicant must submit the following documents to the Graduate Certificate Program Advisor in either the College of Health Sciences or College of Education:

1. a resume;
2. a statement of purpose in which the student explains his/her motivation for pursuing a Graduate Certificate in Addiction Studies and describes his/her career interests; and
3. three letters of reference from previous professors evaluating the applicant’s academic potential. (For applicants whose academic record predates the application by five years or more, supervisors may submit the letters of reference. For applicants who applied for a graduate program within 3 years, those references can be used.)

Once the applicant’s file is complete, the Addiction Studies Graduate Certificate Committee will evaluate, interview, and an admission recommendation (regular, provisional, or denial) will be forwarded to the Program Directors (Chairs) of the Counselor Education and Master of Health Science Program. In the case of a recommendation for provisional admission, the Committee will also establish the stipulations that must be satisfied by the student to advance to regular status. Admission to the Certificate in Addiction Studies does not guarantee subsequent admission to any other certificate or graduate degree programs.

Certificate Requirements
A minimum of 18 credits is required for completion of the Graduate Certificate in Addiction Studies.
Prerequisite for the certificate program is COUN 545/MHLTHSCI 545 Foundations of Chemical Dependency (Offered every Fall semester, evening class once per week).

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COUN 541/MHLTHSCI 544 Addiction and the Family System</td>
<td>3</td>
</tr>
<tr>
<td>COUN 544/MHLTHSCI 564 Screening and Assessment of Alcohol and Drug Problems</td>
<td>3</td>
</tr>
<tr>
<td>COUN 546/MHLTHSCI 565 Assessment and Case Management of Alcohol and Drug Problems</td>
<td>3</td>
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</tbody>
</table>

A minimum of 9 credits from the following:

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COUN 543/MHLTHSCI 543 Assessing and Managing Adolescent Substance Abuse and Mental Health Risks</td>
<td>3</td>
</tr>
<tr>
<td>COUN 547/MHLTHSCI 547 Chemical Addictions and Violence Prevention</td>
<td>3</td>
</tr>
<tr>
<td>COUN 550/MHLTHSCI 568 Diagnosis, Assessment and Treatment Planning</td>
<td>2</td>
</tr>
<tr>
<td>COUN 567/MHLTHSCI 567 Clinical Supervision Principles and Practice</td>
<td>1</td>
</tr>
<tr>
<td>HLTHST 469 Ethics for Addiction Professionals OR COUN 508 Special Needs, Ethics, and Legal Issues in Counseling</td>
<td>2-3</td>
</tr>
<tr>
<td>MHLTHSCI 548 Counseling Techniques for Health Professionals OR COUN 502 Counseling Theories &amp; Application</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL | 18

- Course prerequisites or permission of the instructor must also be met.
- Students who wish to enroll in courses other than those specified may do so by permission of the Addiction Studies Graduate Certificate Committee.
- Students must maintain a minimum 3.0 GPA in all certification course work.
- Students seeking Alcohol/Drug Counselor certification are strongly advised to take HLTHST 469 and MHLTHSCI 548 if not pursuing the Masters of Counseling Program.
Course Offerings
COUN—COUNSELING

COUN 541 (MHLTHSCI 544) ADDICTION AND THE FAMILY SYSTEM (3-0-3)(F,S). Examination of multigenerational impact of addiction (drugs, alcohol, work, religion, internet, gambling etc.) on the family system. In addition to dysfunctional roles developed to cope with addiction, class also compares and contrasts communication strategies and parenting styles of unhealthy and healthy family systems. Risk and protective factors, stages of change, and continuum of care from prevention, intervention, treatment and aftercare are addressed. May be taken for COUN or MHLTHSCI credit, but not both. PREREQ: HLTHST 109 or COUN/MHLTHSCI 545 or PERM/INST.

COUN 543 (MHLTHSCI 543) ASSESSING AND MANAGING ADOLESCENT SUBSTANCE ABUSE AND MENTAL HEALTH RISKS (3-0-3)(S)(Odd years). Introduction to comprehensive adolescent risk assessment and treatment planning. Examination of current and available comprehensive adolescent assessments, current and available specialized assessments, report writing approaches and effective treatment processes. May be taken for COUN or MHLTHSCI credit, but not both. PREREQ: Graduate standing.

COUN 544 (MHLTHSCI 564) SCREENING AND ASSESSMENT OF ALCOHOL AND DRUG PROBLEMS (3-0-3)(F). Emphasis on screening and assessment tool procedures for substance abuse. Application of current interventions and screening processes. Legal, social, ethical, and health implications will be investigated. May be taken for COUN or MHLTHSCI credit, but not both. PREREQ: HLTHST 109 or COUN/MHLTHSCI 545 or PERM/INST.

COUN 546 (MHLTHSCI 565) ASSESSMENT AND CASE MANAGEMENT OF ALCOHOL AND DRUG PROBLEMS (3-0-3)(S). Emphasis on case management techniques including legal, social, ethical, and health implications. May be taken for COUN or MHLTHSCI credit, but not both. PREREQ: MHLTHSCI 564 or COUN 546 or PERM/INST.

COUN 547 (MHLTHSCI 547) CHEMICAL ADDICTIONS AND VIOLENCE PREVENTION (3-0-3)(SU). Introduction to professional, ethical, legal, and practical aspects of chemical addictions and violence prevention (primary and secondary) in the schools and other settings (e.g., adolescent treatment). Examination of current research and available curriculum models, current identification and intervention approaches, and effective prevention programming. Historical and social contexts (e.g., Safe and Drug Free Schools and communities initiative) also included. May be taken for COUN or MHLTHSCI credit, but not both. PREREQ: Graduate standing.

COUN 550 (MHLTHSCI 568) DIAGNOSES, ASSESSMENT, AND TREATMENT PLANNING (2-0-2)(F). Examination of concepts of “mental disorders,” DSM classification systems, and the diagnostic benefits and diagnostic problems inherent in such systems. An introduction and overview of the major psychopathological syndromes of adolescents and adults (especially in the area of Co-morbidity of Substance Abuse/Dependence and other DSM IV diagnoses) to facilitate appropriate use of assessment–diagnostic–treatment links (including treatment planning). May be taken for COUN or MHLTHSCI credit, but not both. PREREQ: PERM/INST.

COUN 567 (MHLTHSCI 567) CLINICAL SUPERVISION PRINCIPLES AND PRACTICE (1-0-1)(SU)(Odd years). Theory and skill development for practitioners who are or will be supervising interns and/or professionals in school, agency, and other settings. Topics include ethical issues in clinical supervision, models and best practices, documentation, and troubleshooting problematic dynamics. May be taken for COUN or MHLTHSCI credit, but not both. PREREQ: PERM/INST.
Interdisciplinary Programs
Graduate Certificate in Gerontological Studies

Graduate Certificate in Gerontological Studies

College of Education
Department of Counselor Education
Contact: Bobbie Birdsall
Education Building, Room 614, Mail Stop 1721
Telephone (208) 426-3204
e-mail: bbirdsa@boisestate.edu

College of Health Sciences
Master of Health Science Program
Graduate Program Coordinator: Theodore McDonald
Health Science Riverside Building, Room 104, Mail Stop 1835
Telephone (208)-426-2217
e-mail: tmcdonal@boisestate.edu
http://hs.boisestate.edu/MHS

College of Social Sciences and Public Affairs
School of Social Work
Contact: Denice Liley
Education Building, Room 716, Mail Stop 1940
Telephone (208) 426-4395
e-mail: dliley@boisestate.edu

General Information
The Graduate Certificate in Gerontological Studies is an interdisciplinary program offered by the College of Education, Master of Arts in School Counseling (MASC) and Department of Kinesiology, College of Health Sciences, Master of Health Science Program (MHS), and College of Social Science and Public Affairs, Master of Social Work (MSW). The certificate program is administered by the Graduate Coordinators from the MASC, MHS, and MSW programs in conjunction with the Center for Study of Aging.

The postgraduate certificate is intended for students enrolled in any graduate degree program and for local professionals. The goal of the certificate program is to enable students to choose a unified, coherent group of courses in gerontological studies and related fields that improve their understanding of issues related to aging. The program curriculum is in compliance with the Core Principles and Outcomes of the Association for Gerontology in Higher Education.

Admission Requirements
The minimum requirements of admission to the certificate program are a baccalaureate degree from a regionally accredited college or university and admission to the Graduate College. In addition, admission will be based upon a review of the student’s transcripts, resume and letter of interest summarizing his or her background and motivation for enrolling in the certificate program.

Admission to the Graduate Certificate in Gerontological Studies does not guarantee subsequent admission to any other certificate or graduate degree programs.

Application Procedures
An applicant should follow the general application procedures of the Graduate College for admission into a graduate program. The applicant must also submit a letter of interest and resume to the MASC, MHS or MSW Graduate Coordinator. Once the applicant’s file is complete, it will be reviewed by the Gerontological Studies Admissions Committee members who will provide an admission recommendation to the Dean of the Graduate College. The Dean will make the final admission decision and notify the applicant.

Certificate Requirements
A minimum of 18 credits (9 credits of core and 9 credits from a concentration area) is required or the completion of the Graduate Certificate in Gerontological Studies.

Students who wish to enroll in courses other than those specified may do so by permission of Coordinator. Course prerequisites or permission of the instructor must also be met.

<table>
<thead>
<tr>
<th>Graduate Certificate in Gerontological Studies</th>
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<tbody>
<tr>
<td>Course Number and Title</td>
</tr>
<tr>
<td>Required Core Courses:</td>
</tr>
<tr>
<td>COUN/MHLTHSCI/SOCWRK 571 Fundamentals of Healthy Aging</td>
</tr>
<tr>
<td>MHLTHSCI 576 Health Policymaking and Issues in Aging</td>
</tr>
<tr>
<td>COUN/MHLTHSCI/SOCWRK 590 Practicum</td>
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<tr>
<td>Area of Concentration</td>
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<tr>
<td>(select one area of concentration)</td>
</tr>
<tr>
<td>Counseling Concentration</td>
</tr>
<tr>
<td>COUN 517 Family Issues in Later Life</td>
</tr>
<tr>
<td>COUN 518 Counseling Issues with Older Adults</td>
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<tr>
<td>COUN 550 Diagnosis, Assessment and Treatment Planning</td>
</tr>
<tr>
<td>COUN 551 Psychopharmacology with Older Adults</td>
</tr>
<tr>
<td>Health Science Concentration</td>
</tr>
<tr>
<td>HILTHST 410 Health and Aging</td>
</tr>
<tr>
<td>MHLTHSCI 555 Program Evaluation</td>
</tr>
<tr>
<td>MHLTHSCI 574 Health Promotion and Optimal Aging</td>
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<tr>
<td>Social Perspectives Concentration</td>
</tr>
<tr>
<td>SOC 511 The Sociology of Age Group Stratification</td>
</tr>
<tr>
<td>SOC 512 Social Demography</td>
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<tr>
<td>SOCWRK 533 Aging: Social Policy and Programs</td>
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<tr>
<td>Health Promotion/Exercise Science Concentration</td>
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<tr>
<td>BIOL 300 Biology of Aging</td>
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<tr>
<td>KINES 430 Physical Activity and Aging</td>
</tr>
<tr>
<td>MHLTHSCI 574 Health Promotion and Optimal Aging</td>
</tr>
<tr>
<td>TOTAL</td>
</tr>
</tbody>
</table>
Division of Extended Studies

Dean: Mark Wheeler
1015 Grant Avenue, Mail Stop 1120
Telephone (208) 426-1709
FAX (208) 426-3467
e-mail: ESTellUs@boisestate.edu
www.boisestate.edu/extendedstudies

Associate Dean: Kenneth Brauchle
Telephone (208) 426-3369

General Information
The Division of Extended Studies connects the resources of Boise State University with individuals, organizations and communities to maximize educational opportunity. Responsive and enterprising, the Division partners with the University’s academic colleges to extend access to academic, professional development and personal enrichment opportunities. The Division accommodates a wide range of learners and their circumstances by developing programs that feature alternative formats and locations.

Graduate Programs
The Division of Extended Studies provides administrative support for the following graduate programs:

Offered via Distance Education
- Master of Educational Technology
- Master of Science in Educational Technology
- Master of Science in Instructional & Performance Technology
- Master of Nursing
- Master of Science in Nursing
- Graduate Certificate in Human Performance Technology
- Graduate Certificate in Online Teaching
- Graduate Certificate in School Technology Coordination
- Graduate Certificate in Technology Integration Specialist
- Graduate Certificate in Workplace E-Learning and Performance Support

Offered at Regional and Boise Sites
- Master of Education in Bilingual Education
- Master of Education in English as a Second Language
- Master of Arts in Education, Literacy
- Master of Social Work—Advanced Standing
- Master of Social Work—Full Program
- Graduate Certificate in Conflict Management
- Boise State University Writing Project

Distance Education Programs
Boise State University offers the following graduate degree and certificate programs at a distance. For more information, go to www.boisestate.edu/distance.

Master’s Degrees in Educational Technology We offer a Master of Educational Technology for those who are practitioner focused, and a Master of Science in Educational Technology for students who anticipate working in research or pursuing a doctoral degree.

For educators who need specialized training but do not want a complete master’s degree, the department also offers three graduate certificates in Online Teaching, School Technology Coordination, and Technology Integration Specialist.

Educational Technology at Boise State is an international leader in teaching faculty to teach in 3-D virtual worlds. All of our online courses are highly interactive and are not electronic correspondence. Graduates typically are employed in schools, community colleges, and universities or as training specialists and instructional designers. Program details found in the College of Education section of this catalog. For more information, call (208) 426-1966, http://edtech.boisestate.edu, or edtech@boisestate.edu

Master of Science in Instructional & Performance Technology (Online Option) The Master of Science in Instructional & Performance Technology (IPT) degree, the Graduate Certificate in Human Performance Technology (HPT), and the Graduate Certificate in Workplace E-Learning and Performance Support (WELPS) are intended to prepare students for careers in the areas of instructional technology, performance technology, instructional design, performance improvement, training and training management, e-learning in business and industry, human resources, organizational development, and human performance consulting. Program details found in the College of Engineering section of this catalog. For more information, call (208) 424-5135, http://ipt.boisestate.edu, or jfenner@boisestate.edu

Graduate Program in Nursing The Department of Nursing offers a graduate program leading to a Master of Science in Nursing degree (thesis), and another program leading to a Master of Nursing degree (professional project). Both programs prepare students for advanced professional nursing roles and scholarly work focusing on population health within the approved public health degree titles. A professional fee is charged to students each semester. Program details found in the College of Health Sciences section of this catalog. For more information, call (208) 426-4143 or http://nursing.boisestate.edu, or nursing@boisestate.edu.
Programs at Regional Sites

Boise State University offers the following graduate degree and certificate programs, primarily at sites away from the Boise main campus. For more information, call (208) 426-1709.

**Master of Education in Bilingual Education or English as a Second Language**  This program is designed for teachers who work with or are preparing to work with English language learners. Classes meet at College of Southern Idaho in Twin Falls and in Nampa, in a condensed format, Friday evening and all day Saturday. Each 3-credit class meets on three weekends. The program is designed to be completed in two years, including summer. For more information, call (208) 426-4077 or go to http://education.boisestate.edu/bilingual-esl/graduate.htm.

**Master of Arts in Education, Literacy**  This program for educators is offered on the weekend in a condensed format, Friday evening and Saturday, for the convenience of working professionals. Each 3-credit class meets three times during the semester in Boise or in Nampa. The program is designed to be completed in two years, including summer. For more information, call (208) 426-3962 or go to http://education.boisestate.edu/literacy/MA_Litdegree.htm.

**Master of Social Work—Advanced Standing**  This 31-credit program is designed for students who have earned a Bachelor of Social Work degree. Cohorts meet in Lewiston, Coeur d’Alene and Twin Falls, evenings and weekends to fit the needs of working professionals. For more information, call (208) 292-2679 or go to www.boisestate.edu/socwrk/academics/msw_ni/.

**Master of Social Work—Full Program**  This 63-credit program is designed for students with a bachelor’s degree in a field other than social work. Cohorts meet in Lewiston, Coeur d’Alene and Twin Falls, evenings and weekends to fit the needs of working professionals. For more information, call (208) 292-2679 or go to www.boisestate.edu/socwrk/academics/msw_ni/.

**Graduate Certificate in Conflict Management**  This Boise campus program assists working professionals and students in understanding and responding to interpersonal conflict, including third party facilitation and mediation, as well as understanding conflict in larger groups and developing the skills for facilitating high conflict settings. For more information, call (208) 426-3928 or go to http://ppa.boisestate.edu/mediation/ccncertificate.shtml.

**Boise State University Writing Project**  The Boise State Writing Project (BSWP), a member of the National Writing Project network, began on the Boise State campus in the summer of 2005. The network consists of over 250 international sites and includes an international corps of teachers and teacher leaders. The BSWP is working to bring high-quality professional development programs to the teachers in Southern Idaho. For more information, call (208) 426-1199 or go to http://english.boisestate.edu/bswp/.

Boise State Regional Sites

The Division of Extended Studies provides administrative support for graduate programs at locations away from the Boise main campus. Advising and registration assistance are available at most sites. Customer service for Boise State textbook sales and library services is available via the web. The regional sites are:

**Canyon County:**
- Undergraduate programs
  - Columbia High School
    - 301 S. Happy Valley Road, Nampa, ID 83687
    - (208) 426-1709
- Graduate programs in Bilingual/ESL Education and Literacy
  - College of Western Idaho
    - 5500 E. University Way, Nampa, ID 83687
    - (208) 426-1709

**Coeur d’Alene**
- Boise State MSW Program
  - Lewis-Clark State College. Coeur d’Alene
    - 1000 W. Hubbard Ave., Suite 144, Coeur d’Alene, ID 83814
    - (208) 292-2679

**Gowen Field**
- Undergraduate programs
  - Harvard Street, Building #521, Gowen Field, Boise, ID 83705
    - (208) 272-3758 or (208) 426-1709

**Lewiston**
- Boise State MSW Program
  - Lewis-Clark State College. Social Work Department
    - 500 8th Ave., Lewiston, ID 83501
    - (208) 792-2783

**Mountain Home Air Force Base**
- Undergraduate programs
  - Base Education Center
    - 665 Falcon St., Mountain Home AFB, ID 83648
    - (208) 828-6746 or (208) 426-1709

**Twin Falls**
- Boise State MSW Program
  - Aspen Building, Room 124
    - College of Southern Idaho Campus
      - P.O. Box 1238, Twin Falls, ID 83303
      - (208) 933-2361
The Boise State Center for Professional Development offers education and training programs for business, engineering, public administration and health care professionals. Our programs are designed for professionals who are seeking knowledge and skills to address their work challenges. For more information, call (208) 426-3861 or go to http://cpd.boisestate.edu.

Continuing Education Units (CEU)
A Continuing Education Unit (CEU) is a nationally standardized unit documenting participation in noncredit programs, courses, or workshops. The Division of Extended Studies approves and transcribes CEUs, which can be provided to employers as verification that you have completed a course in which CEUs were granted. CEUs cannot be converted to academic credit. For more information, call (208) 426-3861.

Osher Lifelong Learning Institute
The Osher Lifelong Learning Institute (OLLI) provides a rich array of noncredit lectures and short courses from across the curriculum designed for seasoned adult learners. Membership is open to adults who enjoy the challenge of learning without the stress of tests and grades. No prerequisite are required for this program in which members share the common bond of intellectual curiosity. For a brochure and additional information, call (208) 426-1709 or visit www.boisestate.edu/osher.

Study Tours
Extended Studies provides educational travel opportunities for students and the community in their Educational Study Tour program. Travel is scheduled between semesters, spring break and summers and is offered for credit or non-credit. The Study Tour program offers travel to locations in the U.S. as well as abroad. These faculty-led programs are open to current students as well as the general public and are usually one to two weeks in duration. Recent study tours have gone to London, Paris, Prague, Vienna, Italy, Mexico City, New York, Greece, Scotland, China and Spain. For more information, call (208) 426-3293 or visit www.boisestate.edu/extendedstudies/studytours/.

Questions About Extended Studies?
If you have questions about these programs contact the Division of Extended Studies, 1015 Grant Avenue, (208) 426-1709 or online at www.boisestate.edu/extendedstudies
ADDITIONAL GRADUATE COURSES

NOTICE: The 500-level courses listed below are not offered on a regular basis. Students interested in these courses should consult with an advisor in the Department before completing their application.

BIOCHEM—BIOCHEMISTRY

BIOCHEM 510 ADVANCED PROTEIN CHEMISTRY (3-0-3)(S)(Alternate years). An in-depth study of proteins that focuses on amino acid chemistry, protein structure, protein folding, and protein function. This course will discuss modern methods of protein characterization and the use of bioinformatics in understanding the chemistry/function of proteins. Given the recent developments in the proteomics, several of the high-throughput approaches to identifying proteins assessing function will also be investigated. Students will make extensive use of primary literature. PREREQ: CHEM 322 and CHEM 432 or PERM/INST.

BIOCHEM 511 NUCLEIC ACID METABOLISM (3-0-3)(S)(Alternate years). An investigation into several anabolic, catabolic, and signaling processes in the cell. Special attention will be given to molecular mechanisms and regulation. Students will make extensive use of primary literature. PREREQ: CHEM 412 or PERM/INST.

BIOCHEM 512 INTERMEDIARY METABOLISM (3-0-3)(S)(Alternate years). An in-depth study of the metabolism of both DNA and RNA at the molecular/mechanistic level. This course will cover the mechanisms DNA replication, transcription, translation, transposition and repair, as well as those for RNA splicing, catalysis, silencing and interference RNA. Bioinformatics approaches and modern techniques for studying DNA/RNA and their interactions with proteins will be discussed. Students will make extensive use of primary literature. PREREQ: CHEM 432 or PERM/INST.

BIOCHEM 513 ADVANCED ENZYMEOLOGY (3-0-3)(S)(Alternate years). An in-depth study of the catalytic and kinetic mechanisms of enzymes. Modern methods for studying enzymes will be included as well as learning strategies for studying steady state and transient enzyme kinetics. Students will make extensive use of primary literature. PREREQ: CHEM 322 and CHEM 433 or PERM/INST.

BIOL—BIOLOGY

BIOL 521 IMMUNOLOGY LABORATORY (0-6-2)(F/S). Modern immunological laboratory techniques including flow cytometry, immune system physiology, antibody-based assays including ELISA, vaccine design, and immuno-bioinformatics. COREQ: BIOL 520.

BIOL 570 GENETIC ENGINEERING AND BIOTECHNOLOGY (3-0-3)(F/S). Applications of biotechnology, genetic engineering, and recombinant DNA technology in medical diagnosis and therapy, agriculture, microbial biology and environmental systems. The principles and application of recombinant DNA technology in industrial, agricultural, pharmaceutical, and biomedical fields are discussed. PREREQ: BIOL 343.

BIOL 611 ADVANCED CELL BIOLOGY (3-0-3)(F). Contemporary and frontier topics in the biology of microbial, plant, and animal cells covering signal transduction, protein trafficking, membrane structure and transport, cell to cell communication, cellular compartmentalization, and cell biotechnology applications. PREREQ: BIOL 301 or PERM/INST.

BIOL 623 ADVANCED IMMUNOLOGY (1-0-1)(S). Advanced study of the cellular and molecular regulation of the immune response. The course will include formal lectures, student presentations, and in-depth discussion of selected topics using the current literature. PREREQ: BIOL 520 or PERM/INST.

BMOL—BIOMOLECULAR SCIENCES

BMOL 601 BIOMOLECULES I (4-0-4)(F). An in-depth study of the metabolism of both DNA and RNA at the molecular/mechanistic level. This course will cover the mechanisms of DNA replication, transcription, translation, transposition and repair, as well as those for RNA interference, catalysis, silencing and splicing. Molecular genetics and bioinformatics approaches for studying DNA/RNA and their interactions with proteins will be discussed. PREREQ: BIOL 301, CHEM 431, MATH 170, PHYS 112.

BMOL 602 BIOMOLECULES II (4-0-4)(S). An in-depth study of proteins focusing on amino acid chemistry, protein structure, protein folding, protein function, membrane biochemistry as well as small molecules, lipids and carbohydrates. This course will discuss modern methods of protein characterization and the use of bioinformatics in understanding the chemistry/function of proteins. Recent developments in proteomics and high-throughput approaches to identifying and assessing protein function will be presented. PREREQ: BMOL 601.

BMOL 603 BIOPHYSICAL INSTRUMENTATION AND TECHNIQUES (3-3-4) (F/S). Applications and principles of key physical methods and instruments used for the characterization of the structural, functional, and dynamical properties of biological molecules and their interactions. Methods include single-molecule detection and manipulation; mass spectrometry; X-ray, electron, and neutron diffraction; spectroscopy (optical, IR, UV, Raman); magnetic resonance (NMR, EPR, MRI); plasmon resonance; birefringence; electrophoresis; and hydrodynamic techniques. PREREQ: BIOL 301, CHEM 431, MATH 170, PHYS 112.

BMOL 605 CURRENT SCIENTIFIC LITERATURE (1-0-1)(F). Written and oral presentation of current topics from the published literature in areas of Biomolecular Sciences aimed at integrating material from the various related disciplines. Course will be multidisciplinary involving in depth discussion and critical analysis of current literature by the students. PREREQ: Graduate student status.

BMOL 606 PROPOSAL WRITING (0-2-2)(F/S). Written and oral presentation of a research proposal in an area of biomolecular sciences related to the student’s proposed dissertation research project. PREREQ: BMOL 601.


BUSCOM—BUSINESS COMMUNICATION

BUSCOM 538 MANAGING TECHNICAL COMMUNICATION (3-0-3)(F/S). An advanced study of technical communication for managers and technical professionals who must originate, specify, and/or approve technical instructions, proposals, reports, and related documents. Students will acquire proficiency in writing and designing these documents by applying syntactic, semantic, and pragmatic theory and visual design principles to applied problems in document design, information access, and human information processing.

CHEM—CHEMISTRY

CHEM 500 RESEARCH METHODS IN CHEMISTRY AND BIOCHEMISTRY (1-0-1)(F). An introduction to project planning, literature assessment, report writing, and data management. PREREQ: Admission to chemistry graduate program.

CHEM 501 ADVANCED INORGANIC CHEMISTRY (3-0-3)(F). Atomic structure, molecular structure using valence bond and molecular orbital theories, elementary group theory, transition metal coordination chemistry, acids and bases, descriptive transition and nontransition metal chemistry. PREREQ: CHEM 322 or PERM/INST.

CHEM 507 PHYSICAL ORGANIC CHEMISTRY (3-0-3)(S)(Alternate years). Mechanisms of organic chemical reactions, stereochemistry, and conformational analysis. The important types of organic reactions are discussed. Basic principles are emphasized; relatively little attention is paid to the scope and synthetic applications of the reactions. PREREQ: CHEM 309 and CHEM 322 or PERM/INST.

CHEM 508 SYNTHETIC ORGANIC CHEMISTRY (3-0-3)(F)(Alternate years). An introduction to the concepts of polymer synthesis, characterization, structure, properties, and basic fabrication processes.
Emphasis is on practical polymer preparation, on the fundamental kinetics and mechanisms of polymerization, and on structure-property relationship. PREREQ: CHEM 309 or PERM/INST.

CHEM 510 ORGANIC POLYMER SYNTHESIS (3-0-3)(S)(Alternate years). A study of the synthesis and reactions of polymers. Emphasis is on practical polymer preparation and on the fundamental kinetics and mechanisms of polymerization reactions. Topics include relationship of synthesis and structure, characterization of polymer structure, step-growth polymerization, chain-growth polymerization via radical, ionic and coordination intermediates, copolymerization. PREREQ: CHEM 309 or PERM/INST.

CHEM 511 ADVANCED ANALYTICAL CHEMISTRY (3-0-3)(F). Stoichiometry involved in separations and instrumental methods of analysis. The course will be flexible in nature to adapt to the varied background of the students. PREREQ: CHEM 322 or PERM/INST.

CHEM 521 QUANTUM CHEMISTRY (3-0-3)(F)(Alternate years). Formal introduction to quantum mechanics, Dirac notation, angular momentum and operator algebra. Emphasis will be placed on electronic structure theory, reaction mechanisms and the use of modern quantum chemistry theoretical packages. PREREQ: CHEM 322, or PHYS 309 and PHYS 432, or PERM/INST.

CHEM 522 SPECTROSCOPY (3-0-3)(F)(Alternate years). Concepts and practical usage of modern chemical spectroscopic techniques, including electronic absorption, infrared/Raman, X-ray/EXAFS, magnetic resonance and magnetic circular dichroism. Extensive use will be placed on the application of these techniques to the structure/function characterization of chemical and biochemical systems. PREREQ: CHEM 321 or PERM/INST.

CHEM 523 CHEMICAL KINETICS (3-0-3)(F)(Alternate years). A comprehensive study of the role of quantum chemistry and thermodynamics in chemical reactions. Emphasis will be placed on determining reaction coordinates and transition states. Extensive use will be made of modern computational chemical computer programs for calculating potential energy surfaces and transition states. PREREQ: CHEM 322, or PHYS 309 and PHYS 432, or PERM/INST.


CHEM 551 BIOINORGANIC CHEMISTRY (3-0-3)(S)(Alternate years). Exploration of the vital roles that metals play in biochemical systems. Emphasis is on transition metals in biology. Course will focus on structural, regulatory, catalytic, transport and redox functions of bioinorganic systems. PREREQ: CHEM 322 or PERM/INST.

CHEM 552 ORGANO METALLIC CHEMISTRY (3-0-3)(S)(Alternate years). An examination of the organometallic chemistry of the main group and transition elements. Topics to include structure and bonding of complexes having pi ligands; transition metal mediated organic synthesis; homogeneous catalysis. PREREQ: CHEM 401 or 501 or PERM/INST.

CHEM 560 INTRODUCTION TO NMR SPECTROSCOPY (1-3-2)(On demand). This course will instruct students on the theory and practice of one- and two-dimensional NMR spectroscopy. Emphasis will be placed on using the NMR spectrometer to solve a variety of chemical and biological problems. PREREQ: CHEM 322, or PHYS 309 and PHYS 432, or PERM/INST.

CHEM 561 INTRODUCTION TO MOLECULAR MODELING AND COMPUTATIONAL CHEMISTRY (1-3-2)(On demand). Overview of modern computational chemistry. Use of computational chemistry tools and their application to problems of chemical and biological interest. PREREQ: CHEM 322, or PHYS 309 and PHYS 432, or PERM/INST.

CMGT 417G PROJECT SCHEDULING (2-2-3)(F/S). The use of Gantt charts, S-curves, Critical Path Method (CPM) using both Arrow Diagraming and Precedence Diagraming Methods (ADM and PDM), computerized scheduling, P.E.R.T. charts, resource leveling and time cost trade offs used as planning, scheduling, and management techniques. PREREQ: CMGT 374 or PERM/INST.

CMGT 570 LAND DEVELOPMENT (3-0-3)(F/S). An overview of the land development process, including planning, design, construction, and sale of various types of real estate. Key concepts in successful development, feasibility studies, site selection and improvement, government policy and regulation, project planning and master planning, design of public infrastructure, and construction of site improvements.

GENDER—GENDER STUDIES

GENDER 580 SELECTED TOPICS IN GENDER STUDIES (3-0-3) (F/S). Graduate-level studies of a specific topic relating to the field of gender studies.

GCOLL—GRADUATE COLLEGE

GCOLL 505 RESPONSIBLE CONDUCT OF RESEARCH (1-0-1)(F). Basic concepts, principals and practices governing research compliance and Responsible Conduct for Research (RCR) in each of four disciplinary areas (one area chosen by each student): biomedical sciences, social and behavioral sciences, physical sciences and engineering, humanities. Each area includes an overview of research conduct and misconduct, data acquisition and management, responsible authorship, peer review, mentoring, conflicts of interest, collaborative research, human subjects and animal research. On-line materials produced by the Collaborative Institutional Training Initiative (CITI). Lectures will cover the on-line materials and related case studies, and other areas of research compliance including patents, intellectual properties, non-disclosure agreements and sponsored projects. (Pass/Fail.) PREREQ: Graduate standing.

PHYS—PHYSICS

PHYS 507 BIOPHYSICAL INSTRUMENTATION AND TECHNIQUES (3-0-3)(F). Principles and applications of the wide variety of physical techniques used to study living systems. These methods include optical and electron microscopy (SEM, TEM), X-ray crystallography, neutron scattering, scanning probe microscopy, magnetic resonance spectroscopy (NMR, EPR) and imaging (MRI), fluorescent spectroscopy, surface plasmon resonance, microwave absorption, laser light scattering, and optical tweezers, among others. PREREQ: PHYS 307 or PHYS 309 or PERM/INST.

PHYS 512 INTRODUCTORY QUANTUM MECHANICS (3-0-3) (F/S). Introduction to fundamentals of quantum mechanics, including Schroedinger equation, energy levels, angular momentum, electron spin, perturbations, and scattering. Applications, such as tunneling, orbitals, magnetic resonance, and nanoscale effects. PREREQ: PHYS 309.

PHYS 515 SOLID STATE PHYSICS (3-0-3)(F/S). Quantum physics applied to understanding the properties of materials, including semiconductors, metals, superconductors, and magnetic systems. PREREQ: PHYS 309.

PHYS 523 PHYSICAL METHODS OF MATERIALS CHARACTERIZATION (3-0-3)(S). Physical principles and practical methods used in determining the structural, electronic optical, and magnetic properties of materials. Course topics will include optical, electron, and scanning microscopies, diffraction, surface analysis, optical spectroscopy, electrical transport, and magnetometry. Individual projects will focus on the application of an analytical technique to solve a specific problem. PREREQ: PHYS 309 or PERM/INST.

PHYS 530 OPTICS (3-0-3). Geometrical and physical optics, including lenses, fiber optics, Fourier optics, polarization, interference, diffraction, lasers, and holography. PREREQ: PHYS 212, MATH 333. COREQ: PHYS 334.

PHYS 532 THERMAL PHYSICS (3-0-3)(S). Discussion of temperature, work, specific heat, and entropy. The laws of thermodynamics are discussed and applied to physical problems. Ideal gases, statistics, Gibbs free energy, and cryogenics. Work on heat transfer of lattice vibrations and phonons will be required. PREREQ: Graduate standing or PERM/INST.

PHYS 534 OPTICS LABORATORY (0-3-1). Laboratory to be taken concurrently with PHYS 530. Experiments in optics, including optical systems, thick lenses, interference, diffraction, Fourier optics, image processing, and holography. COREQ: PHYS 530.

PHYS 536 SOFT MATTER (3-0-3)(S)(Even years). Introduction to the physical principles underlying the properties and behaviors of soft matter, including polymers, gels, colloids, and liquid crystals. Examples of soft matter include gels, paints, soaps, rubber, foams, gelatin, milk, and most materials of biological origin. (Recommended preparation: PHYS 309.) PREREQ: MATH 275, PHYS 212, and CHEM 322 or MSE 308 or PHYS 432.

PHYS 537 RADIATION BIOPHYSICS (3-0-3)(F/S). Physical properties and biological effects of different kinds of radiation: action of radiation on various cellular constituents: target theory; genetic effects, repair of radiation damage, physics of radiology and radiotherapy, isotopic tracers. PREREQ: PHYS 307 or PHYS 309 or PERM/INST.
PHYS 545 MAGNETISM AND MAGNETIC MATERIALS (3-0-3)(F/S).
Physical principles of magnetism, properties of different types of magnetic materials, and their technological applications. Topics include magnetic moments, interactions and ordering, magnetism in metals and semiconductors; magnetic resonance, magnetoresistance, nanoscale magnetism; spintronics; magnetic recording technologies. PREREQ: PHYS 515.

PHYS 557 CELLULAR AND MOLECULAR BIOPHYSICS (3-0-3)(F/S).
The physics of cellular structure and function: membrane theories, diffusion and active transport, bioelectric phenomena; intracellular motion, thermodynamics. Macromolecular structure: energetics, intramolecular and intermolecular forces, protein folding, information storage, structure and physics of DNA and RNA. PREREQ: PHYS 307 or PHYS 507 or PERM/INST.

PHYS 572 ELECTROMAGNETISM (3-0-3)(S), Electromagnetic theory derived from Maxwell’s equations. Applications to electromagnetic fields in materials, including dielectrics, magnetization, wave propagation through materials, stress tensors, and radiation. PREREQ: PHYS 381 or ECE 390.

PHYS 598 PHYSICS SEMINAR (1-0-1)(S). Individual reports on selected topics. The level of the reports must reflect the additional work expected beyond that required for the undergraduate seminar. PREREQ: PERM/INST.

PHYS 611 MOLECULAR BIOPHYSICS (3-2-4)(F/S). Introduction to the basic concepts and applications of molecular biophysics. Topics include energy and molecular forces in biological structures, conformations of biomolecules, polyelectrolytes in biological systems, transport processes, molecular motors, reaction rates, ions in solution, biological polymers and membranes. PREREQ: BIOL 301, CHEM 431, MATH 170, PHYS 112.

PHYS 612 CELL BIOPHYSICS AND IMAGING (2-2-3)(F/S), Biophysics and imaging of cellular structure and function. Topics include cell rigidity, motility, osmotic pressure, endocytosis, trafficking and diffusion in cytoplasm, ion channels and electrolyte balance, neural electrical signaling. Key techniques of imaging cells, including confocal, fluorescence, multi-photon, and phase-contrast microscopies, and special treatments and methods for live-cell imaging. PREREQ: BIOL 301, CHEM 431, MATH 170, PHYS 112.

PHYS 620 NANOBIO TECHNOLOGY (3-0-3)(F/S). An introduction to the biological and biomedical uses of nanotechnology, including the nature and applications of nanostructures to cell biology, imaging, biosensors, medical therapy (including anti-cancer therapies and drug delivery), and biotechnology. PREREQ: BMOL 603.

PHYS 624 MEMBRANE BIOPHYSICS (3-0-3)(F/S). Membranes are of fundamental importance for biological systems due to their roles in cellular compartmentalization, signal transduction, metabolism, and energy synthesis. Topics include structures and functions of membrane bilayers and membrane proteins, physics of membrane fusion, and mechanisms of cell signaling and energy transduction. PREREQ: BMOL 602, PHYS 611.

PHYSSCI—PHYSICAL SCIENCE

PHYSCI 501 BASIC PHYSICAL SCIENCE FOR SCIENCE TEACHERS (3-0-3). Selected concepts of matter and energy that are widely applicable understanding our physical environment. A one-semester course for non-science majors.

PSYC—PSYCHOLOGY

PSYC 331G THE PSYCHOLOGY OF HEALTH (3-0-3)(F/S), Principles that have emerged from the experimental analysis of behavior will be examined. The principles include, but are not limited to, operant and classical conditioning. The course will deal with applications of these principles to the understanding and change of phobias, obesity, smoking, alcoholism, aberrant sexual behavior, and similar problems. PREREQ: PSYC 101.

PSYC 405G ADVANCED STATISTICAL METHODS (3-0-3)(S), Advanced topics in univariate statistics (for example, repeated measures designs) and multivariate techniques such as discriminant analysis, factor analysis, and principal component analysis. PREREQ: PSYC 321 or equivalent or PERM/INST.

PSYC 421G PSYCHOLOGICAL MEASUREMENT (3-0-3)(F). Theory and nature of psychological measurement together with a survey of types of psychological tests currently used. PREREQ: PSYC 321.

PSYC 438G COMMUNITY PSYCHOLOGY (3-0-3)(S), Focuses on human and social problems in a systemic context. Primary prevention and community empowerment strategies employed are emphasized for individual, community, and social benefit. A course in research methods or statistics is recommended but not required. PREREQ: PSYC 101.

SOC—SOCIOL OGY

SOC 500 ADVANCED SOCIAL STATISTICS (3-0-3)(S). The methods of nonparametric statistics in the analysis of sociological data are examined in depth with application to research. PREREQ: SOC 101 and SOC 310 or equivalents as determined by consultation with department chair.

SOC 501 THE SOCIOLOGY OF EDUCATION (3-0-3)(F/S). A sociological analysis of the American school system, its problems and the social forces that shape the schools in contemporary society.

SOC 502 QUALITATIVE SOCIAL RESEARCH METHODS (3-0-3)(F). An intensive course in interpretive social science, covering the practice of fieldwork ethnography, the use of computers in qualitative research, techniques of qualitative data analysis, and the writing of qualitative research reports. PREREQ: Graduate standing.

SOC 510 CONFLICT AND CHANGE IN SOCIO-CULTURAL SYSTEMS (3-0-3)(F/S). Intensive examination of social and cultural change as related to technological evolution, value changes and the resultant conflict in society.

SOC 511 THE SOCIOLOGY OF AGE GROUP STRATIFICATION (3-0-3)(F/S). Examination of the sociological effect of age as a major dimension of social organization and stratification in American society and Western civilization. The course will consider the effects of changing patterns of longevity; resultant changes in age distribution of the population as these factors affect social, economic, and political systems.

SOC 512 SOCIAL DEMOGRAPHY (3-0-3)(F/S). Techniques and methods for analyzing population growth, trends, and movement as reflected in actuarial data, birth-death rate; mobility, fertility and fecundity as these affect the societal patterns, especially planning for human service programs.

SOC 535 DRUGS IN SOCIETAL CONTEXT (3-0-3)(F/S), This class applies the sociological perspective on social problems to drug use. It examines how different social groups use drugs, attempt to control and prohibit the use of drugs, and the societal effects of using and controlling the use of drugs.

SOC 571 FEMINIST SOCIOLOGICAL THEORY (3-0-3)(F/S). An examination of the major types of feminist theory in Sociology or theory directly useful to sociologists in search of understanding and explaining gender relations. The student will encounter new perspectives in Sociology that arise from the exchange of new ideas, new data, exciting possibilities for social change, and the emergence of new theoretical models to understand gender relations. PREREQ: Graduate standing.

SOC 595 READING AND CONFERENCE (1-2 credits). Directed reading on selected materials in human services administration and discussion of these materials as arranged and approved through major advisor.
Administration and Faculty
Boise State University Administration

President
Robert W. Kustra

Provost and Vice President for Academic Affairs
Sona Andrews

Associate Vice President for Academic Planning
James Munger

Associate Vice President for Undergraduate Studies
Sharon McGuire

Vice President for Finance and Administration
Stacy Pearson

Associate Vice President for Finance and Administration
Jo Ellen Dinucci

Associate Vice President for Campus Planning and Facilities
James Maguire

Vice President for Student Affairs
Michael Laliberte

Vice President for University Advancement
Rika Clement

Associate Vice President for University Advancement
Mark Rudin

Vice President for Research

Vice President for Student Affairs

Associate Vice President for Energy Research, Policy, and Campus Sustainability
John Gardner

Dean of University Libraries
Marilyn K. Moody

Graduate College
Dean, John R. (Jack) Pelton
Associate Dean, Alfred Duffy

College of Arts and Sciences
Dean, Martin Schimpf
Associate Dean, Anthony Roark

College of Business and Economics
Dean, Patrick Shannon
Associate Dean, Diane Schooley-Petts
Associate Dean for Graduate Studies and Executive Education, Kirk Smith

College of Education
Dean, Diane Boothe
Associate Dean, Ross Vaughn
Associate Dean for Teacher Education and Accreditation, Ken Coll

College of Engineering
Dean, Cheryl B. Schrader
Associate Dean of Academic Affairs, Janet Callahan
Assistant Dean of Research and Infrastructure, Rex Oxford

College of Health Sciences
Dean, James Girvan
Associate Dean, Pam Springer
Associate Dean, Sarah Toews

College of Social Sciences and Public Affairs
Dean, Melissa Lavitt
Associate Dean, L. Shelton Woods

Division of Extended Studies
Dean, Mark Wheeler
Assistant Dean, Kenneth Brauchle

Boise State University Graduate Faculty
Full-Time Official Faculty as of May 2009

NOTE: The date in parentheses is the year of first appointment.

"May chair graduate committees.

A

Associate Professor, Electrical and Computer Engineering; Ph.D., University of Illinois at Urbana-Champaign

Allen, Robin* ........................................................ (1997)
Professor, Social Work; Ph.D., University of Illinois at Urbana-Champaign

Alred, Keith W.* ..................................................... (2007)
Chair, Graduate Program Coordinator, and Associate Professor, Special Education and Early Childhood Studies; Ph.D., Vanderbilt University

Alm, Leslie* ......................................................... (1991)
Professor, Political Science; Ph.D., Colorado State University

Andersen, Timothy* .................................................. (2001)
Associate Professor, Computer Science; Ph.D., Brigham Young University

Professor, Curriculum, Instruction and Foundational Studies; Ph.D., Utah State University

Anderson, Jeffrey M.* ................................................ (2005)
Director, Clinical Education and Associate Professor, Respiratory Care; M.A., Boise State University

Anooshian, Linda James* ............................................ (1988)
Professor, Psychology; Ph.D., University of California, Riverside

Anson, Robert* ....................................................... (1990)
Faculty Ombudsman and Professor, Information Technology and Supply Chain Management; Ph.D., Indiana University

Armstrong, James* ................................................... (1992)
Professor, Literacy; Ph.D., University of Illinois at Urbana-Champaign

Atalakon, Philip* ..................................................... (1985)
Professor, Theatre Arts; M.A., State University of New York, Binghamton

B

Babinkostova, Liljana* ............................................. (2007)
Assistant Professor, Mathematics; Ph.D., University of St. Cyril and Methodius, Macedonia

Bacon, Stephanie* ................................................... (1998)
Professor, Art; M.F.A., Brooklyn College

Bahnsen, Paul R.* .................................................... (1999)
Professor, Accountancy; Ph.D., University of Utah

Ballenger, Robert* .................................................. (1988)
Chair, Graduate Program Coordinator, and Professor, Bilingual Education; Ph.D., University of Texas at Austin

Associate Professor, Community and Environmental Health; Ph.D., Temple University

Baker, R. Jacob* ..................................................... (2000)
Graduate Program Coordinator and Professor, Electrical and Computer Engineering; Ph.D., University of Nevada

Baldassare, Joseph A. (Emeritus) ............................... (1975)
Music; D.M.A., Case Western University

Baldwin, John B.* .................................................... (1971)
Professor, Music; Ph.D., Michigan State University

Ball, Jeremy* ......................................................... (2004)
Director Paralegal Studies Program and Associate Professor, Criminal Justice; Ph.D., University of Nebraska-Omaha

Ballenger, Bruce* ................................................... (1995)
Professor, English; Ph.D., University of New Hampshire

Baltzell, Michael* .................................................... (1995)
Associate Professor, Theatre Arts; M.F.A., Idaho State University
Graduate Faculty

Bammel, Brad P.* .................................................. (1988)  
Associate Professor, Chemistry and Biochemistry;  
Ph.D., University of New Orleans

Barbour, Barton* ................................................. (2001)  
Associate Professor, History; Ph.D., University of New Mexico

Barney, L. Dwayne* ............................................... (1986)  
Professor, Marketing and Finance; Ph.D., Texas A & M University

Barney Smith, Elisa* ............................................. (1999)  
Associate Professor, Electrical and Computer Engineering; Ph.D., Rensselaer Polytechnic Institute

Research Professor, Geosciences Department; Ph.D., University of Idaho

Battalo, John T.* .................................................. (1995)  
Associate Professor, English; Ph.D., Texas A & M University

Baughn, C. Christopher* ...................................... (1998)  
Professor, Management; Ph.D., Wayne State University

Beachard, Marc Joseph* ......................................... (1983)  
Professor, Biological Sciences; Ph.D., Washington State University

Belfy, Jeanne Marie* ............................................. (1983)  
Graduate Program Coordinator and Professor, Music;  
Ph.D., University of Kentucky

Bell, Kenneth* ..................................................... (1997)  
Associate Professor, Kinesiology; Ph.D., Virginia Polytechnic Institute and State University

Belhoff, James* .................................................... (1993)  
Chair and Professor, Biological Sciences; Ph.D.,  
Clemson University

Bennett, Shawn* .................................................. (2004)  
Associate Professor, Geosciences; Ph.D., University of Waterloo

Professor, Music; D.M.A., University of Wisconsin, Madison

Bier, John ............................................................. (2004)  
Associate Professor, History; Ph.D., Boston College

Bigbee, Jeri L* ....................................................... (2006)  
Endowed Professor, Nursing; Ph.D., University of Texas at Austin

Bigelow, John D.* .................................................. (1982)  
Professor, Management; Ph.D., Case Western Reserve University

Birdall, Bobbie A.* .................................................. (1995)  
Chair, Graduate Program Coordinator, and Associate Professor, Counseling Program Coordinator, Counselor Education; Ph.D., Oregon State University

Bixby, Michael B.* ................................................. (1981)  
Professor, Management; J.D., University of Michigan

Blain, Michael* .................................................... (1982)  
Professor, Sociology, Ph.D., University of Colorado

Blakeslee, Laurie* .................................................. (2001)  
Associate Professor, Art; M.F.A., University of Arizona

Blankenship, Michael* .......................................... (2003)  
Professor, Criminal Justice; Ph.D., Sam Houston State University

Bodie, Nancy (Dusty) ............................................... (2008)  
Assistant Professor, Management; Ph.D., University of Illinois at Chicago

Graduate Program Coordinator and Associate Professor, Criminal Justice; Ph.D., University of Cincinnati

Boucher, Teresa* ................................................... (1997)  
Chair and Professor, Modern Languages and Literatures;  
Ph.D., Princeton University

Bradford, John* .................................................... (2001)  
Director of CGISS and Assistant Professor, Geosciences;  
Ph.D., Rice University

Brady, Lisa Marie* .................................................. (2004)  
Assistant Professor, History; Ph.D., University of Kansas

Bratt, J. Wallis* .................................................... (1970)  
Associate Professor, Music; M.M., University of Utah

Brendel, Jonathan* ................................................ (2000)  
Associate Professor, Curriculum, Instruction and  
Foundational Studies; Ph.D., University of Wisconsin, Madison

Brill, Stephen H.* .................................................. (1998)  
Associate Professor, Mathematics; Ph.D., University of Vermont

Brown, Eric* ....................................................... (2008)  
Assistant Professor, Chemistry and Biochemistry; Ph.D., Oregon State University

Brown, Marcellus* ................................................... (1989)  
Associate Professor, Music; M.M., University of Michigan at Ann Arbor

Brownning, Jim* .................................................... (2007)  
Associate Professor, Electrical and Computer Engineering; Ph.D., University of Wisconsin, Madison

Brownstone, William B.* ........................................ (1996)  
Professor, Modern Languages and Literatures; D.M.L., Middlebury College

Brudnell, Ingrid* .................................................... (1991)  
Professor, Nursing; Ph.D., Oregon Health Sciences University

Buchanan, Mark A.* ................................................. (1996)  
Professor, Management; J.D., University of Nebraska,  
Lincoln

Buddie, James* ..................................................... (1997)  
Professor, Art; M.F.A., California State University,  
Fullerton

Budge, Kathleen* ................................................ (2006)  
Assistant Professor Educational Leadership Coordinator,  
Curriculum, Instruction, and Foundational Studies;  
Ed.D., University of Washington

Buffenbarger, James* .............................................. (1991)  
Associate Professor, Computer Science; Ph.D., University of California, Davis

Buhler, Peter* ..................................................... (1977)  
Professor, History; Ph.D., University of California, San Diego

Chair and Associate Professor, Mathematics and  
Computer Science; Ph.D., University of Iowa

Bunkhart, Rose* .................................................... (2004)  
Chair and Associate Professor, Political Science; Ph.D.,  
University of Iowa

Butt, Darryl* .......................................................... (2005)  
Chair and Professor, Materials Science and Engineering;  
Ph.D., Pennsylvania State University

Cahill, Mary Ann .................................................. (2007)  
Assistant Professor, Literacy; Ed.D., Boise State University

Callahan, Janet* ................................................... (2004)  
Associate Dean, College of Engineering and President, Materials Science and Engineering; Ph.D., University of Connecticut

Campbell, Ann* ..................................................... (2004)  
Assistant Professor, English; Ph.D., Emory University

Campbell, Kristy A.* ............................................... (2005)  
Associate Professor, Electrical and Computer Engineering; Ph.D., University of California, Davis

Carnoski, Joan ....................................................... (2008)  
Associate Professor, Nursing; Ph.D., University of Idaho (ABD)

Casper, Mary Frances* ............................................ (2007)  
Assistant Professor, Communication; Ph.D., North Dakota State University

Charlier, Henry A.* .................................................. (2000)  
Associate Professor, Chemistry and Biochemistry;  
Ph.D., Medical College of Wisconsin

Chase, Margaret E.* ............................................... (2007)  
Assistant Professor, Literacy; Ph.D., Indiana University

Chenoweth, Timothy* ............................................. (2004)  
Associate Professor, Information Technology and Supply Chain Management; Ph.D., Washington State University

Chiaisson, John N.* .................................................. (2006)  
Graduate Program Coordinator and Associate Professor, Electrical and Computer Engineering; Ph.D., University of Minnesota

Chung, Seung Yoon (Yonnie)* ...................... (1997)  
Associate Professor, Instructional & Performance  
Technology; Ed.D., Texas Tech University

Clark, Cynthia* .................................................. (1997)  
Professor, Nursing; Ph.D., University of Idaho

Coll, Kenneth M.* ................................................ (1988)  
Associate Dean, College of Education and Professor,  
Counselor Education; Ph.D., Oregon State University

Cook, Devan* ....................................................... (1997)  
Associate Chair and Associate Professor, English; Ph.D.,  
Florida State University

Corless-Smith, Martin* ....................................... (2000)  
Director of Creative Writing, Graduate Program  
Coordinator, and Associate Professor, English; Ph.D.,  
University of Utah

Cornell, Kenneth A.* ............................................. (2006)  
Associate Professor, Chemistry and Biochemistry;  
Ph.D., Oregon Health and Sciences University

Corral, Karen ....................................................... (2008)  
Assistant Professor, Information Technology and Supply Chain Management; Ph.D., University of Arizona

Cotrell, Gretchen* ............................................... (1991)  
Associate Professor, Social Work; Ph.D., University of California, Berkeley

Cowan, Mark* ...................................................... (2005)  
Associate Professor, Accountancy; J.D., University of Connecticut

Cutler, Martin Michael ............................................ (2006)  
Graduate Program Coordinator and Assistant Professor,  
Counselor Education; Ph.D., University of South Dakota

Davis, Shona* ..................................................... (2005)  
Associate Professor, Nursing; D.N.Sc., University of California, Los Angeles

Dawley, Lisa* ....................................................... (2006)  
Chair, Graduate Program Coordinator, and Professor,  
Educational Technology; Ph.D., University of California, Santa Barbara

Dawson, Paul* ..................................................... (1993)  
Professor, Mechanical and Biomedical Engineering;  
Ph.D., Washington State University

Dayley, Jon Philip* .................................................. (1982)  
Professor, English; Ph.D., University of California,  
Berkeley

Dinkar, Nilanka* ................................................... (2006)  
Assistant Professor, Art; Ph.D., State University of New York at Stony Brook

Dominguez, Nicanor Jose* ......................... (2008)  
Associate Professor, History; Ph.D., University of Illinois at Urbana-Champaign

Doumas, Diana M.* ............................................... (2003)  
Professor, Counseling; Psychology; Ph.D., University of  
Southern California

Downey, Margaret .................................................. (1993)  
Associate Professor, Nursing; Ph.D., University of Idaho

Dubert, LeeAnn* ................................................... (1992)  
Associate Professor, Literacy; Ph.D., University of Wisconsin, Madison

Duffey, Alfred M.* .................................................. (1988)  
Associate Dean of the Graduate College and Professor,  
Biological Sciences; Ph.D., State University of New York,  
Binghamton

Durham, Leslie ..................................................... (2006)  
Associate Professor, Theatre Arts; Ph.D., University of Kansas

Professor, Physics; Ph.D., University of Texas at Austin

Eagert, Rudolph* .................................................. (1996)  
Professor, Mechanical and Biomedical Engineering;  
Ph.D., State University of New York, Buffalo

Eison-Bowers, Pat* ................................................. (1986)  
Chair and Professor, Psychology; Director Paralegal  
Studies; Ph.D., University of Idaho

English, Denise M.* ............................................... (2008)  
Chair and Professor, Accountancy; Ph.D., Indiana  
University, Bloomington
English, Thomas J.* .................................................... (1987)
Professor, Accountancy; Ph.D., Arizona State University

Estrada, Hindu* ........................................................... (2008)
Associate Professor, English; Ph.D., University of Nevada, Reno

F
Freemuth, John C.* .................................................... (1986)
Professor, Biomedical Engineering; Ph.D., Northeastern University, Boston

Ferguson, James R.* .................................................. (1996)
Chair and Associate Professor, Mechanical and Biomedical Engineering; Ph.D., Washington State University

Feis, Kevin* .............................................................. (2005)
Assistant Professor, Biological Sciences; Ph.D., University of Montana

Filterer, Jill* ............................................................. (2006)
Assistant Professor, Art, M.F.A., California State University, Long Beach

Flores, Alejandro N.* ................................................ (2009)
Associate Professor, Geosciences; Ph.D. Massachusetts Institute of Technology

Forkey, Jennifer* ...................................................... (2008)
Assistant Professor, Biological Sciences; Ph.D., University of Utah

Fox, Francis* ............................................................ (1999)
Associate Professor, Art; M.F.A., University of Wyoming

Francis, John* .......................................................... (2002)
Assistant Professor, Art; M.S., Florida State University

Frankle, Alan* ........................................................... (1984)
Professor, Marketing and Finance; Ph.D., University of Arizona

Frary, Megan* ............................................................ (2005)
Assistant Professor, Materials Science and Engineering; Ph.D., Massachusetts Institute of Technology

Fredericksen, Elizabeth* ........................................... (1999)
Graduate Program Coordinator and Associate Professor, Public Policy and Administration; Ph.D., Washington State University

Fredricksen, James E.* ............................................ (2008)
Assistant Professor, English; Ph.D., Michigan State University

Fream, Laura* ........................................................... (1986)
Professor, Political Science; Ph.D., Colorado State University

Fry, Phillip C.* .......................................................... (1987)
Chair and Professor, Information Technology and Supply Chain Management; Ph.D., Louisiana State University

Fry, Sara* ................................................................. (2008)
Assistant Professor, Curriculum, Instruction and Foundational Studies; Ph.D., University of Wyoming

G
Galup, V. Lyman* ...................................................... (1977)
Associate Professor, Information Technology and Supply Chain Management; Ph.D., University of Oregon

Gao, Yong* ................................................................. (2008)
Professor, Kinesiology; Ph.D., University of Illinois at Urbana-Champaign

Gardner, John F.* ...................................................... (2000)
Associate Vice President for Energy Research, Policy, and Campus Sustainability and Professor, Mechanical and Biomedical Engineering; Ph.D., Ohio State University

Garza, Maria Alicia* ................................................ (1997)
Associate Professor, Modern Languages and Literatures; Ph.D., University of Arizona

Galliker, Thomas* ..................................................... (2005)
Assistant Professor, Information Technology and Supply Chain Management; Ph.D., University of Georgia

Gehrke, Pamela* ....................................................... (1998)
Associate Professor, Nursing; M.S., University of Portland

Gerdling, Alighal A.* .................................................. (2008)
Associate Chair for Graduate Programs, Graduate Program Coordinator, and Professor, Nursing; Ph.D., Ohio State University

Geschke, Stefan* ........................................................ (2007)
Assistant Professor, Mathematics; Ph.D., Freie Universität Berlin

Giacomazzi, Andrew* ................................................ (1998)
Chair and Professor, Criminal Justice; Ph.D., Washington State University

Gibson, Terry-Arn Spitzer* ........................................... (1981)
Associate Professor, Kinesiology; Ph.D., University of Idaho

Gill, Jill K.* .............................................................. (2000)
Graduate Program Coordinator and Associate Professor, History; Ph.D., University of Pennsylvania, Philadelphia

Girvan, James* ........................................................... (2000)
Dean, and Professor, College of Health Sciences; Ph.D., University of Oregon

Glen, Roy* ............................................................... (1982)
Associate Professor, Management; Ph.D., Case Western Reserve University

Associate Director, Center for Teaching and Learning and Assistant Professor, Music; Ed.D., University of Illinois at Urbana-Champaign

Gough, Newell (Sandy)* .......................................... (1989)
Professor, Management; Ph.D., University of Utah

Grantham, Stephen B.* .......................................... (1982)
Coordinator of Data Quality and Reporting and Associate Professor, Mathematics; Ph.D., University of Colorado

Gregory, Anne E.* ................................................... (2002)
Associate Professor, Literacy; Ph.D., Purdue University

Gribb, Molly M.* ........................................................ (2000)
Professor, Civil Engineering; Ph.D., University of Wisconsin, Milwaukee

Guarino, Joseph C.* .................................................. (2000)
Associate Chair and Professor, Mechanical and Biomedical Engineering; Ph.D., University of Idaho

Hamilton, Robert W.* .............................................. (2000)
Chair and Associate Professor, Civil Engineering; Ph.D., University of Maine

Hampikian, Gregory* .............................................. (2004)
Professor, Biological Sciences; Ph.D., University of Connecticut

Hanna, Charles B.* .................................................. (1996)
Professor, Physics; Ph.D., Stanford University

Hansen, Mark R.* .................................................... (2007)
Chair and Professor, Music; D.M.A., University of North Texas, Denton

Hansen, Marla* ........................................................ (1991)
Associate Professor, Theatre Arts; M.F.A., University of Utah

Hansen, Matthew C.* .............................................. (2005)
Graduate Program Coordinator and Assistant Professor, English; Ph.D., University of Nebraska

Hansen, Zeynep Kobabiyik* ........................................ (2008)
Associate Professor, Economics; Ph.D., University of Arizona

Harkness, Daniel* ..................................................... (1993)
Professor, Social Work; Ph.D., University of Kansas

Haaland, Jens* .......................................................... (2007)
Assistant Professor, Mathematics; Ph.D., University of Oregon

Harris, Beatrice A. .................................................... (2005)
Assistant Professor, Early Childhood Studies; Ph.D., University of Nebraska, Lincoln

Hansen, Heath* ........................................................ (2007)
Assistant Professor, Biological Sciences; Ph.D., University of Florida

Hemmings, Craig* .................................................... (1996)
Director, Honors College; Associate Professor, Criminal Justice and Academic; J.D., North Carolina Central University; Ph.D., Sam Houston State University

Henderson, Heike* .................................................. (1997)
Associate Professor, Modern Languages and Literatures; Ph.D., University of California, Davis

Hereford, Mary* ....................................................... (2003)
Associate Professor, Nursing; Ph.D., University of Idaho, Moscow

Hill, Christopher L.* .............................................. (2002)
Associate Professor, Anthropology; Ph.D., Southern Methodist University

Hill, Gregory* .......................................................... (2005)
Associate Professor, Public Policy and Administration; Ph.D., Texas A&M University

Hillard, Thomas* ..................................................... (2008)
Assistant Professor, English; Ph.D., University of Arizona

Hindrichs, Cheryl* .................................................... (2008)
Assistant Professor, English; Ph.D., Ohio State University

Hodges, Brian* .......................................................... (2008)
Assistant Professor, Music; D.M.A., University of North Carolina at Greensboro

Hoeger, Werner W. K.* (Emeritus) ......................... (1986)
Kinesiology; Ed.D., Brigham Young University

Holmes, Janet* ........................................................ (1999)
Associate Professor, English; M.F.A., Warren Wilson College

Holmes, M. Randall* ............................................... (1991)
Associate Professor, Mathematics; Ph.D., State University of New York at Binghamton

Professor, Psychology; Ph.D., University of Utah

Hustle, Ann* ............................................................ (1990)
Professor, Theatre Arts; M.F.A., University of Texas at Austin

Hourcade, Jack Joseph* ........................................... (1987)
Professor, Special Education and Early Childhood Studies; Ph.D., University of Missouri, Columbia

Hughes, William L.* ............................................... (2008)
Assistant Professor, Materials Science and Engineering; Ph.D., Georgia Institute of Technology

Huglin, Linda M.* .................................................... (2007)
Assistant Professor, Instructional & Performance Technology; Ph.D., University of Idaho

Humphrey, Michael John* ....................................... (2007)
Assistant Professor, Special Education and Early Childhood Studies; Ed.D., University of Northern Colorado

Hung, Jui-long (Andy)* ............................................. (2008)
Assistant Professor, Educational Technology; Ed.D., Texas Tech University

Huston, Virginia* ..................................................... (1999)
Associate Professor, Sociology; Ph.D., University of Illinois at Urbana-Champaign

J
Jain, Amit* ............................................................... (1996)
Graduate Program Coordinator and Associate Professor, Computer Science; Ph.D., University of Central Florida

Jirak, James* ........................................................... (1994)
Associate Professor, Music; D.A., University of Colorado

Johnson, Evelyn* ..................................................... (2008)
Associate Professor, Special Education and Early Childhood Studies; Ed.D., University of Washington

Johnson, Tyler G.* .................................................... (2008)
Assistant Professor, Kinesiology; Ph.D., Arizona State University

Jones, Daryll E.* ...................................................... (1986)
Director, Interdisciplinary Studies Graduate Program; Ph.D., Michigan State University

Jones, Laura* ............................................................ (2005)
Assistant Professor, Kinesiology; Ph.D., University of South Carolina, Columbia

Joczyk, Cheryl* ......................................................... (1998)
Associate Professor, Biological Sciences; Ph.D., Johns Hopkins University
K

Kaiser, Uwe* ............................................................ (2001)
Associate Chair and Associate Professor, Mathematics;
Ph.D., University of Siegen
Kaufpils, Gündar* .................................................. (2008)
Chair and Professor, Management; Ph.D., University of
Iowa
Kelley, Lorrie Lynn ................................................. (1991)
CT/MRI Program Director and Associate Professor,
Radiologic Sciences; M.S., Boise State University
Kelly, Phillip P.* ..................................................... (2001)
Associate Professor, Curriculum, Instruction and
Foundational Studies; Ph.D., Michigan State University
Kenney, Bonnie L. Davis ........................................... (2009)
Assistant Professor, Social Work; Ph.D., University of
Albany; State University of New York
Kerry, G. Ots* .......................................................... (1996)
Associate Professor, Mathematics; Ph.D., University of
Kansas
Kerr, Charles R. (Emeritus) ..................................... (1969)
Mathematics; Ph.D., University of British Columbia
Kewa, Kathleen* ...................................................... (2004)
Graduate Program Coordinator and Associate Professor,
Art, Ph.D., The Ohio State University
Khmal, Mandar* ...................................................... (2000)
Assistant Chair and Associate Professor, Civil,
Environmental, and Metallurgical Engineering; Ph.D.,
University of California, Irvine
Kim, ByungIl* ........................................................ (2006)
Associate Professor, Physics; Ph.D., Seoul National
University
Kimrey, Richard* ........................................................ (1976)
Professor, Public Policy and Administration; Political
Science; Ph.D., University of Notre Dame
Knuel, Margaret N* ................................................... (2000)
Associate Professor, Mathematics; Ph.D., Pennsylvania
State University
Knaur, Richard* ...................................................... (1992)
Chair and Associate Professor, Theatre Arts; Ph.D.,
Wayne State University
Klein, Joanne* ........................................................ (2001)
Associate Professor, History; Ph.D., Rice University
Associate Professor, Materials Science and Engineering;
Ph.D., University of California, Berkeley
Associate Professor, Mathematics; Ph.D., Texas A&M
University
Koepen, David R.* .................................................... (1996)
Professor, Accountancy; Ph.D., University of Wisconsin-
Madison
Koetsier, Peter* ......................................................... (1995)
Professor, Biological Sciences; Ph.D., Idaho State
University
Kohn, Matthew J.* ................................................... (2007)
Associate Professor, Geosciences; Ph.D., Rensselaer
Polytechnic Institute
Kuang, Wan* .............................................................. (2005)
Assistant Professor, Electrical and Computer
Engineering; Ph.D., University of Southern California
L

Lamar, Linda Kline* .................................................. (2000)
Associate Professor, Music; D.A., University of Memphis
Landrum, R. Eric* ..................................................... (1992)
Professor, Psychology; Ph.D., Southern Illinois
University at Carbondale
Lathen, William* ...................................................... (1984)
Professor, Accountancy; Ph.D., Arizona State University
Lee, Jachaud* ............................................................ (2003)
Associate Professor, Mathematics; Ph.D., University of
Georgia
Lee, Jeuenghoon ........................................................ (2008)
Assistant Professor, Chemistry and Biochemistry; Ph.D.,
University of Connecticut
LeMaster, Clifford* ................................................... (1990)
Chair and Professor, Chemistry and Biochemistry;
Ph.D., University of California, Davis
Levy, Denise Goodrich* ............................................. (1997)
Associate Professor, Social Work; Ph.D., University of
Utah
Lincoln, Douglas J.* .................................................. (1980)
Professor, Marketing and Finance; Ph.D., Virginia
Polytechnic Institute and State University
Loek, Helen (Emeritus) ............................................ (1979)
English; Ph.D., University of Denver
Long, Elaine M* ......................................................... (1975)
Professor, Health Studies; Ph.D., University of Idaho
Loong, James A.* ....................................................... (1971)
Associate Professor, Biological Sciences; Ph.D., Iowa
State University
Loo, Sin Ming* .......................................................... (2004)
Associate Professor, Electrical and Computer
Engineering; Ph.D., University of Alabama in Huntsville
Lopez, Viviana* ......................................................... (2009)
Assistant Professor, Bilingual Education; Ph.D., New
Mexico State University
Loudesh, Christine* .................................................. (1989)
Professor, Economics; Ph.D., Washington State
University
Lowe, Scott E.* .......................................................... (2006)
Assistant Professor, Economics; Ph.D., University of
California, Santa Barbara
Luhamskys, Lynn* .................................................... (2001)
Associate Professor, History; Ph.D., Indiana University
Lucas, Shelly Marie* .................................................... (2001)
Graduate Program Coordinator and Associate Professor,
Kinesiology; Ph.D., University of Iowa
Lutze, Peter C.* ........................................................ (1990)
Director, University Television and Associate Professor,
Communication; Ph.D., University of Wisconsin
M

MacDonald, Jason B. .................................................. (2000)
Associate Professor, Marketing and Finance; Ph.D.,
University of Texas-Pan American
Macy, Rosemary* ..................................................... (2005)
Associate Professor, Nursing; Ph.D., University of Idaho
Maher, Matthew* ..................................................... (1980)
Associate Professor, Marketing and Finance; Ph.D.,
University of Illinois at Urbana-Champaign
Malama, Bwalya* ..................................................... (2008)
Assistant Research Professor, Geosciences; Ph.D.,
University of Arizona
Markel, Michael* ....................................................... (1990)
Director of Technical Communication and Professor,
English; Ph.D., Pennsylvania State University
Marker, Anthony Wayne* ........................................ (2005)
Assistant Professor, Instructional & Performance
Technology; Ph.D., Indiana University, Bloomington
Marsh, Natalie Nelson* ........................................... (2005)
Assistant Professor, Communication; Ph.D., University of
Colorado
Marsh, Robert L.* ..................................................... (1974)
Associate Professor, Criminal Justice; Ph.D., Sam
Houston State University
Marshall, Hans-Peter* ............................................... (2009)
Assistant Professor, Geosciences; Ph.D., University of
Colorado at Boulder
Martin, Carol A. (Emeritus) ........................................ (1972)
English; Ph.D., Catholic University of America
Martin, Susan D.* ....................................................... (2004)
Associate Professor, Literacy; Ph.D., University of
Washington
Mason, Susan G* ....................................................... (2004)
Graduate Certificate Director and Assistant Professor,
Political Science; Ph.D., University of Missouri
Mattie, David* ........................................................ (1992)
Professor, Music; D.M.A.; University of Georgia
Matsen, Michael* ....................................................... (2005)
Assistant Professor, English, Ph.D., University of
Massachusetts Amherst
McCain, Gary* ......................................................... (1979)
Chair and Professor, Marketing; Ph.D., University of
Oregon
McCarr, Robert S., III ............................................... (1994)
Professor, Sociology; Ph.D., Memorial University of
Newfoundland
McChesney, John W.* .............................................. (1995)
Associate Professor, Kinesiology; Ph.D., University of
Utah
McClellan, Lisa* ........................................................ (2001)
Director, Gender Studies and Associate Professor,
History; Ph.D., University of Texas
McCool, Suzanne* ..................................................... (1978)
Director, Conflict Management Services and Professor,
Public Policy and Administration; Ph.D., University of
Colorado
McDonald, Theodore W.* ....................................... (2001)
Graduate Program Coordinator, Health Sciences and
Professor, Community and Environmental Health;
Ph.D., University of Wisconsin-Milwaukee
McDougal, Owen ....................................................... (2008)
Associate Professor, Chemistry and Biochemistry;
Ph.D., University of Utah
McGuire, Sharon Paterson ........................................ (2008)
Associate Vice President for Undergraduate Studies
and Associate Professor, Sociology; Ph.D., Virginia
Polytechnic Institute and State University
McIntosh, John ......................................................... (2008)
Assistant Professor, Management; Ph.D., University of
Illinois at Urbana Champaign
Professor, Communication; Ph.D., University of Iowa
McNamara, James P.* ............................................... (1997)
Graduate Program Coordinator, Hydrologic Sciences
and Professor, Geosciences; M.S., Syracuse University
McNeil, Larry* ......................................................... (1999)
Professor, Art; M.F.A., University of New Mexico
Mead, Jodi L* ............................................................ (2000)
Graduate Program Coordinator and Professor,
Mathematics; Ph.D., Arizona State University
Medici, Murali* ........................................................ (2008)
Chair and Professor, Computer Science; Ph.D.,
University of Central Florida
Medici, Sitika* ........................................................ (2008)
Assistant Professor, Computer Science; Ph.D., Arizona
State University
Merrcer, Gary D.* (Emeritus) .................................... (1975)
Chemistry and Biochemistry; Ph.D., Cornell University
Michaels, Paul* ........................................................ (1955)
Professor, Geosciences; Ph.D., University of Utah
Miller, Nicholas* ......................................................... (1993)
Chair and Professor, History; Ph.D., Indiana University
Miller, Rickey* ........................................................ (1992)
Associate Chair and Associate Professor, Curriculum,
Instruction and Foundational Studies; Ph.D., New
Mexico State University
Miller, Sonda M* ....................................................... (2006)
Assistant Professor, Civil Engineering; Ph.D., University
of Iowa
Misch, Robert P* ......................................................... (1986)
Professor, Information Technology and Supply Chain
Management; Ph.D., Texas Tech University
Misky, Rebecca ......................................................... (2006)
Chair and Associate Professor, Civil Engineering; Ph.D.,
University of Tennessee
Mitchell, Kristen A.* ................................................ (2007)
Assistant Professor, Biological Sciences; Ph.D.,
Washington State University
Mitkova, Maria I* ...................................................... (2007)
Associate Professor, Electrical and Computer
Engineering; Ph.D., University of Chemical Technology
and Metallurgy, Sofia, Bulgaria
Mitro, Tudor* .......................................................... (2004)
Assistant Professor, Art; M.F.A., University of North
Texas
Associate Professor, Materials Science and Engineering;
Ph.D., University of California, Berkeley
Molumbry, Nicole* .................................................... (2005)
Assistant Professor, Music; D.M.A., The Ohio State
University
Moncrief, Gary F* ..................................................... (1976)
Professor, Political Science; Ph.D., University of
Kentucky
Money, Sean* .......................................................... (2006)
Professor, Economics; Ph.D., Oregon State University

Graduate Faculty
Graduate Faculty

Sarin, Shikha* ......................................................... (2002)
Professor, Marketing and Finance; Ph.D., University of Texas at Austin

Saunders, David* ....................................................... (1997)
Professor, Music; D.M.A., State University of New York at Stony Brook

Scarritt, Arthur* ...................................................... (2008)
Assistant Professor, Sociology; Ph.D., University of Wisconsin-Madison

Schackel, Sandra K.* .................................................. (1989)
Professor, History; Ph.D., University of New Mexico

Scheepers, Marion* .................................................. (1988)
Professor, Mathematics; Ph.D., University of Kansas

Schimpf, Martin E.* .................................................. (1990)
Dean, College of Arts and Sciences and Professor, Chemistry and Biochemistry; Ph.D., University of Utah

Schultz, Mark* .......................................................... (2004)
Graduate Program Coordinator and Associate Professor, Geosciences; Ph.D., Massachusetts Institute of Technology

Schooler-Pettis, Diane* ............................................ (1989)
Associate Dean, College of Business and Economics and Professor, Marketing and Finance; Ph.D., University of Colorado, Boulder

Schneider, Cheryl B.* ............................................... (2003)
Dean, College of Engineering and Professor, Electrical and Computer Engineering; Ph.D., University of Notre Dame

Schneider, Vivian* .................................................... (2005)
Associate Chair and Professor, Nursing; Ph.D., University of Idaho

Scott, Dan* ................................................................ (2006)
Assistant Professor, Art; M.F.A., New York Academy of Art

Sego, Trina* ............................................................... (2002)
Professor, Marketing and Finance; Ph.D., University of Texas at Austin

Seibert, Penza S.* ...................................................... (1990)
Professor, Psychology; Ph.D., University of New Mexico

Senocak, Ian* ............................................................ (2008)
Assistant Professor, Mechanical and Biomedical Engineering; Ph.D., University of Florida

Serpe, Marco* .......................................................... (1998)
Associate Professor, Biological Sciences; Ph.D., University of California, Davis

Shadle, Susan* .......................................................... (1997)
Director, Center for Teaching and Learning and Professor, Chemistry and Biochemistry; Ph.D., Stanford University

Shallat, Todd A.* ....................................................... (1985)
Director, Center for Idaho History and Professor, History; Ph.D., Carnegie-Mellon University

Shannon, Patrick* ..................................................... (1971)
Dean, College of Business and Economics and Professor, Information Technology and Supply Chain Management; Ph.D., University of Oregon

Shimoni, Jane* .......................................................... (2001)
Associate Professor, Kinesiology; Ed.D., University of Northern Colorado

Shuck, Gail* ............................................................... (2001)
Assistant Professor, English; Ph.D., University of Arizona

Shurtleff-Young, Cheryl* ........................................... (1978)
Graduate Program Coordinator and Professor, Art; M.A., University of Oregon

Assistant Professor, Kinesiology; Ed.D., University of Northern Colorado

Graduate Program Coordinator and Professor, Curriculum, Instruction and Foundational Studies; Ph.D., University of Illinois at Urbana-Champaign

Smith, Howard L.* ................................................... (2006)
Vice President for Advancement; Professor, Management; Ph.D., University of Washington

Smith, James F.* ...................................................... (1992)
Professor, Biological Sciences; Ph.D., University of Wisconsin-Madison

Smith, Jennifer A.* ................................................... (2001)
Graduate Program Coordinator and Associate Professor, Electrical and Computer Engineering; Ph.D., University of Idaho; Ph.D., State University of New York, Albany

Smith, Kirk* ............................................................... (1995)
Associate Dean for Graduate Studies and Executive Education, and Professor, Marketing and Finance; Ph.D., University of Houston

Smith, Mary Jarratt* ................................................ (1987)
Associate Professor, Mathematics; Ph.D., Montana State University

Smulovitz, Anika* ...................................................... (2003)
Associate Professor, Art; M.F.A., University of Wisconsin, Madison

Snelson, Chareen Lee* .............................................. (2006)
Assistant Professor, Educational Technology; Ed.D., Boise State University

Chair and Associate Professor, Curriculum, Instruction, and Foundational Studies; Ph.D., Pennsylvania State University, University Park

Snyder, Walter S.* .................................................. (1984)
Professor, Geosciences; Ph.D., Stanford University

Solom, David* .......................................................... (2008)
Assistant Professor, Public Policy and Administration; Ph.D., University of Delaware

Son, Eun Hye* .......................................................... (2009)
Assistant Professor, Literacy; Ph.D., Ohio State University

Spear, Calle E.* ......................................................... (1996)
Associate Professor, Kinesiology; Ph.D., University of Arkansas

Springer, Pamela* ..................................................... (1989)
Associate Dean, Health Sciences; Chair and Professor, Nursing; Ph.D., Idaho State University

Assistant Professor, Civil Engineering; Ph.D., Oklahoma State University

Sward, Michael* ..................................................... (2005)
Assistant Professor, Computer Science; Ph.D., University of Utah

Staley, Scott* ............................................................ (1993)
Assistant Professor, Radiologic Sciences; M.S., Boise State University

Steiner, Stanley* ....................................................... (1992)
Chair, Graduate Program Coordinator, and Professor, Literacy; Ph.D., University of Wyoming

Stephenson, Dale* ..................................................... (2005)
Director of Environmental Health and Professor, Health Studies; Ph.D., Colorado State University

Stepich, Donald A.* ................................................... (1998)
Chair, Graduate Program Coordinator and Associate Professor, Instructional & Performance Technology; Ph.D., Purdue University

Stewart, Roger* ........................................................ (1995)
Professor, Literacy; Ph.D., Purdue University

Stohr, Mary* ............................................................. (1995)
Professor, Criminal Justice; Ph.D., Washington State University

Streeter, Margaret* .................................................. (2007)
Assistant Professor, Anthropology; Ph.D., University of Missouri-Columbia

Sughrue, Jeffrey S.* ................................................... (2008)
Assistant Professor, Management; Ph.D., Rensselaer Polytechnic Institute

Sutherland, Leonie* ................................................... (2004)
Assistant Professor, Nursing; Ph.D., University of California, San Diego

Tabor, Sharon W.* ................................................... (1998)
Chair and Professor, Information Technology and Supply Chain Management; Ph.D., University of North Texas

Taylor, Ronald S.* ................................................... (1975)
Professor; Art; M.F.A., Utah State University

Tenne, Dmitri* ........................................................ (2006)
Assistant Professor, Physics; Ph.D., Russian Academy of Sciences

Tennison, Stephen A.* ............................................. (1995)
Graduate Program Coordinator and Professor, Mechanical and Biomedical Engineering; Ph.D., Wayne State University

Terpend, Regis* ....................................................... (2006)
Assistant Professor, Information Technology and Supply Chain Management; Ph.D., Arizona State University

Test, Edward M.* .................................................... (2008)
Assistant Professor, English; Ph.D., University of California, Santa Barbara

Theodorou, Philemon D.* .......................................... (2008)
Associate Professor, Music; D.M.A., University of Oklahoma

Thiede Keith W.* ..................................................... (2006)
Graduate Program Coordinator and Professor, Curriculum, Instruction, and Foundational Studies; Ph.D., University of Washington

Tinkler, Juliette* ..................................................... (2004)
Assistant Professor, Biological Sciences; Ph.D., University of Iowa

Toens, Sarah E.* ..................................................... (2000)
Associate Dean, College of Health Sciences; Chair and Professor, Community and Environmental Health; Ph.D., University of Utah

Traynowicz, Laurel* ................................................ (1981)
Director, ULI, Associate Professor, Communication; Ph.D., University of Iowa

Troy, Tom* ............................................................... (1970)
Director, Hemingway Western Studies Center and Professor, English; M.A., Northwestern University

Turner, Lee Ann* ........................................................ (1996)
Associate Professor, Art; Ph.D., University of Pennsylvania

Tutty, Jeremy* .......................................................... (2006)
Assistant Professor, Educational Technology; Ph.D., Arizona State University

Twight, Charlotte* ................................................... (1986)
Professor, Economics; Ph.D., University of Washington

Udall, Brady* .............................................................. (2008)
Assistant Professor, English; M.F.A., University of Iowa

Uelting, Karen S.* ..................................................... (1981)
Associate Professor, English; M.A., University of California, Davis

Uebel, Rick* .............................................................. (2007)
Research Associate Professor, Materials Science and Engineering; Ph.D., The University of Sheffield, UK

Uehling, Karen S.* ..................................................... (1981)
Associate Professor, English; M.A., University of California, Davis

Udy, Ross E.* (Emeritus) ............................................ (1975)
Associate Dean, College of Education and Professor, Kinesiology; Ph.D., Washington State University

Uchida, Steven W.* ................................................... (2007)
Associate Professor, Instructional & Performance Technology; Ph.D., University of Northern Colorado

van Wijk, Kasper* .................................................... (2006)
Graduate Program Coordinator and Assistant Professor, Geophysics; Ph.D., Colorado School of Mines

Vaughn, Ross E.* (Emeritus) ........................................ (1975)
Associate Dean, College of Education and Professor, Kinesiology; Ph.D., Washington State University

Villicastra, Steven W.* ............................................. (2007)
Associate Professor, Instructional & Performance Technology; Ph.D., University of Northern Colorado

Walde, Sharon* ........................................................ (1996)
Graduate Program Coordinator and Professor, Mathematics; Ph.D., Washington State University

Wall, Misty L.* ......................................................... (2009)
Assistant Professor, School of Social Work; Ph.D. University of Texas at Arlington

Walsh, Anthony* ....................................................... (1984)
Professor, Criminal Justice; Ph.D., Bowling Green State University

Wanek, James E.* .................................................... (1996)
Professor, Management; Ph.D., University of Minnesota

Wanek, James E.* .................................................... (1996)
Professor, Management; Ph.D., University of Minnesota

Warner, Don* ........................................................... (2002)
Assistant Professor, Chemistry and Biochemistry; Ph.D., University of Michigan
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<th>Name</th>
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<th>Year</th>
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<td>Weiler, Dawn M.</td>
<td>M.D.</td>
<td>2008</td>
<td>Boise State University</td>
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<td>Welch, Thad B.</td>
<td>Ph.D.</td>
<td>2008</td>
<td>Arizona State University</td>
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<td>Westover, Jeffery W.</td>
<td>Ph.D.</td>
<td>2008</td>
<td>Boston College</td>
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<td>White, Craig*</td>
<td>Ph.D.</td>
<td>2008</td>
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<td>White, Harry*</td>
<td>Ph.D.</td>
<td>2008</td>
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<td>White, Merill M.</td>
<td>Ph.D.</td>
<td>2008</td>
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<td>Willard, Mitchell*</td>
<td>M.D.</td>
<td>2008</td>
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<td>Ph.D.</td>
<td>2008</td>
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<td>Hlth Sci (Emeritus)</td>
<td>2008</td>
<td>Boise State University</td>
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<td>Apel, Ted Ph.D.</td>
<td>Music</td>
<td>2008</td>
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<td>Baehr, Paul M.D.</td>
<td>Kines</td>
<td>2008</td>
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<td>Ball, Christopher L.</td>
<td>Ph.D.</td>
<td>2008</td>
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<td>Bari, Robert Ph.D.</td>
<td>Educ (Emeritus)*</td>
<td>2008</td>
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<td>Bart, Jonathan Ph.D.</td>
<td>Biol Sci</td>
<td>2008</td>
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<td>Beck, Dennis Ph.D.</td>
<td>Educ Tech*</td>
<td>2008</td>
<td>Boise State University</td>
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<td>Bernard, Pamela Hardaway</td>
<td>M.S.</td>
<td>2008</td>
<td>Boise State University</td>
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<td>Bhutana, Rashmi, Ph.D.</td>
<td>Engl</td>
<td>2008</td>
<td>Boise State University</td>
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<td>Bildstien, Keith Louis</td>
<td>Ph.D.</td>
<td>2008</td>
<td>Boise State University</td>
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<td>Blacklock, Karen Ed.</td>
<td>Educ</td>
<td>2008</td>
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<td>Bond, Laura M.S.</td>
<td>Biol Sci</td>
<td>2008</td>
<td>Boise State University</td>
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<td>Boyer, Dale Ph.D.</td>
<td>Engl (Emeritus)</td>
<td>2008</td>
<td>Boise State University</td>
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<td>Bower, Judith M.D.</td>
<td>Hlth Sci</td>
<td>2008</td>
<td>Boise State University</td>
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<td>Brewer, Kenneth A.R.D.</td>
<td>Ph.D.</td>
<td>2008</td>
<td>Boise State University</td>
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<td>Brown, Karen Ph.D.</td>
<td>Art*</td>
<td>2008</td>
<td>Boise State University</td>
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<tr>
<td>Bryant, Amy Ph.D.</td>
<td>Biol Sci</td>
<td>2008</td>
<td>Boise State University</td>
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<tr>
<td>Bunnning, Kimberly Ph.D.</td>
<td>Educ*</td>
<td>2008</td>
<td>Boise State University</td>
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<tr>
<td>Cade, Tom Ph.D.</td>
<td>Biol Sci (Emeritus)</td>
<td>2008</td>
<td>Boise State University</td>
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<tr>
<td>Cadwallader, Kara M.D.</td>
<td>Hlth Sci</td>
<td>2008</td>
<td>Boise State University</td>
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<tr>
<td>Carlisle, Jay Ph.D.</td>
<td>Biol Sci*</td>
<td>2008</td>
<td>Boise State University</td>
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<td>Chaddwick, Daniel G.</td>
<td>J.D.</td>
<td>2008</td>
<td>Boise State University</td>
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<tr>
<td>Chandler, David Ph.D.</td>
<td>Civil Eng.</td>
<td>2008</td>
<td>Boise State University</td>
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<tr>
<td>Chase, Amanda M.S.</td>
<td>Educ Tech.</td>
<td>2008</td>
<td>Boise State University</td>
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<td>Chilton, Jodi Nicole M.F.A. Engl*</td>
<td>2008</td>
<td>Boise State University</td>
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<td>Wingett, Denise G.</td>
<td>Ph.D.</td>
<td>2008</td>
<td>Boise State University</td>
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<td>Yeh, Jyh-hawa*</td>
<td>Ph.D.</td>
<td>2008</td>
<td>Boise State University</td>
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<td>Young, Richard A.</td>
<td>Ph.D.</td>
<td>2008</td>
<td>Boise State University</td>
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<tr>
<td>Yursa, John M.</td>
<td>Ph.D.</td>
<td>2008</td>
<td>Boise State University</td>
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<tr>
<td>Yo, Gongxin*</td>
<td>Ph.D.</td>
<td>2008</td>
<td>Boise State University</td>
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<td>Yun, Ilhong*</td>
<td>Ph.D.</td>
<td>2008</td>
<td>Boise State University</td>
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<tr>
<td>Zarr, Linda Marie*</td>
<td>Ph.D.</td>
<td>2008</td>
<td>Boise State University</td>
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<tr>
<td>Ziker, John P.</td>
<td>Ph.D.</td>
<td>2008</td>
<td>Boise State University</td>
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<td>Zirinsky, Michael P.</td>
<td>Ph.D.</td>
<td>2008</td>
<td>Boise State University</td>
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<tr>
<td>Zuber, I.</td>
<td>Ph.D.</td>
<td>2008</td>
<td>Boise State University</td>
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<td>Zubik, Kowal, Barbara</td>
<td>Ph.D.</td>
<td>2008</td>
<td>Boise State University</td>
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<td>Zuber, Kowal, Barbara</td>
<td>Ph.D.</td>
<td>2008</td>
<td>Boise State University</td>
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<td>Zuber, Kowal, Barbara</td>
<td>Ph.D.</td>
<td>2008</td>
<td>Boise State University</td>
</tr>
<tr>
<td>Zuber, Kowal, Barbara</td>
<td>Ph.D.</td>
<td>2008</td>
<td>Boise State University</td>
</tr>
</tbody>
</table>

**Adjunct Faculty**

Part-Time Faculty, Faculty from Other Universities, Personnel from Affiliated Agencies and Emeriti

NOTE: The date in parentheses is the year of first graduate appointment.

*May chair graduate committees.*
Adjunct Graduate Faculty

Gray, Gayle, M.H.S., Hlth Sci (2005)
Greenberg, Alvin, Ph.D., Engl. (2005)
Greenspan, Valeda, Ph.D., Nurs* (2005)
Gregory, Bayard O., Ph.D., Disput Resoltn (2004)

Hahn, Christine, M.D., Hlth Sci (1998)
Hale, Aileen, Ed.D., Nurs (2009)
Harris, Charles, Ph.D., Biol Sci (2002)
Harrison, Teresa Delgadillo, Ed.D., Educ (Emerita)* (1997)
Henbest, Margaret, M.S., Hlth Sci (1998)
House, Kendall V., Ph.D., Anth* (2007)
Hughes, Nikki J., Ph.D., Kines (2006)

Isaacs, Christine, Ph.D., Crim Just (2006)

Jenkins, Susan, Ph.D., Educ (2001)
Jones, Erol, Ph.D., Hist (Emerita)* (1982)
Juoba, Robert, Ph.D., Math (Emeritus) (2004)

Keeble, John, M.F.A., Engl... (2006)
Kinter, Cecilia Lynn, Ph.D., Biol Sci (2006)
Knapp, James M.S.W., Soc Wkr (1993)
Knuck, Steven T. Ph.D., Biol Sci* (1990)
Knox, Ellis (Skip), Ph.D., Hist (1990)

Lambert, Carroll, Ed.D., Educ (Emerita) (1976)
LaRiviere, Sara, Ed.D., Hlth Studies (Emerita) (1989)
Laughlin, Kevin, Ph.D., C & I Found Studies (2006)
Laverson, Steve, M.D., Kines (2007)
Lind, Bonnie, M.S., Hlth Sci (2001)
Lindsley, Melinda, Ph.D., Spec Educ (Emerita)* (1987)
Louis, Gailen, M.S., Hlth Sci (1996)
Luce, Charles, Ph.D., Geos. (2005)
Lyons, Lamont, Ed.D., Educ (Emeritus)* (1977)

MacGregor, Carol, Ph.D., Hist (1998)
Martin, Sue, M.S.W., Soc Wkr (2007)
McCloskey, Richard, Ph.D., Biol Sci (Emeritus)* (1976)
MCGavan, Patricia, Ph.D., Hlth Sci (2001)
McNeil, Steven C., Ph.D., Hist (2003)
Miller, Alison, M.A., Hlth Sci (2000)
Miller, Beverley, M.A., Hist (1998)
Miller, Margaret, Ph.D., Coun Educ (Emerita) (1994)
Mishra, Rama, Ph.D., Math* (2007)
Montin, Gregory, Ph.D., Kines (2002)
Moore, Heber G., Ph.D., Instrl & Perf Tech (1996)
Moore, James R., M.S., Kines (2001)

Nelson, Anne Marie, Ph.D., Coun Educ (Emerita) (1970)
Noonan, Elizabeth (Bonnie), M.S., Educ (1994)

Park, Susan, J.D., Mgmt (1999)
Petersen, Dave, M.A., Hist (2005)
Plaskett, Donna, Ph.D., Educ (1996)
Prinzling, Dan, Ph.D., C & I Found Studies (2006)

Ragoux, Simone, Ph.D., Mat Sci & Eng (2008)
Reese, Melanie J., Ph.D., Disput Resoltn (2008)
Rodgers, David W., Ph.D., Geos (1987)
Rosentretzer, Roger, Ph.D., Biol Sci (1987)

Schiaoppa, Tanna, Ph.D., Geos (1999)
Schlee, Conni, Ph.D., Elem Educ (2002)
Schmitz, David F. M.D., Comm & Environ Hlth (2009)
Seyfried, Mark, Ph.D., Geos (1995)
Shea, Kevin, M.D., Kines (2001)
Silak, Cathy, J.D., Pub Pol (2006)
Simms, Robert, Ph.D., Hist (Emeritus)* (1970)
Skoro, Charles, Ph.D., Econ (1982)
Small, Milton, M.A., Hist (1990)
Spear, Jerry, Ph.D., Hist Sci (2005)
Spinosa, Claude, Ph.D., Geos (Emerita)* (1970)
Squires, Edward, M.S., Geos (1995)
Stevens, Dennis L., Ph.D., M.D., Biol Sci (1998)

Tank, David C., Ph.D., Biol Sci (2008)
Tay, Peter C., Ph.D., Educ & Comp Eng (1999)
Thomas, Mary Norris, Ph.D., Instrl & Perf Tech (2004)
Thorsen, Carolyn, Ph.D., Educ Tech (Emerita) (1987)
Toney, Patricia N. MA., Educ (1990)
Tutty, Jeremy, Ph.D., Educ Tech (2006)
Tydeman, William, Ph.D., Hist (1994)

Viskopuck, Karen, Ph.D., Geos* (2004)

Wagner, Catherine, Ph.D., Engl (2005)
Walker, David, Ph.D., Hist* (2007)
Ware, Judy, Ph.D., Disput Resoltn (2004)
Weatherby, James, Ph.D., Pub Pol & Admin (Emeritus)* (1980)
Weinzberg, Pamela, Ph.D., Hlth Sci (1998)
West, Elizabeth A., Ph.D., Spec Educ (2007)
West, Stephen, M.H.S., Hlth Sci (2001)
Whitacre, David, Ph.D., Biol Sci (1990)
White, Courtney Reynolds, M.B.A.; Bus & Econ (2003)
Wickelow-Howard, Marcia, Ph.D., Biol Sci (Emerita)* (1975)
Wilson, Kevin, M.A., Engl (1995)
Wonnak, Michael S., M.D., Kines (2005)
Wood, Spencer H., Ph.D., Geos (Emeritus)* (1977)
Worthington, Janet Evans, Ph.D., Educ Tech (2004)

Youngerman, Stephanie, E.D., Educ (2002)
Yopp, Martha, Ed.D., Educ (2001)

Zollweg, James E., M.S., Geos (1995)
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<td>Ahlman, Chris</td>
<td>Ph.D.</td>
<td>Soc Wrk</td>
<td>2007</td>
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<td>Ault, Sarah</td>
<td>M.A.</td>
<td>Educ-Tech</td>
<td>2009</td>
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