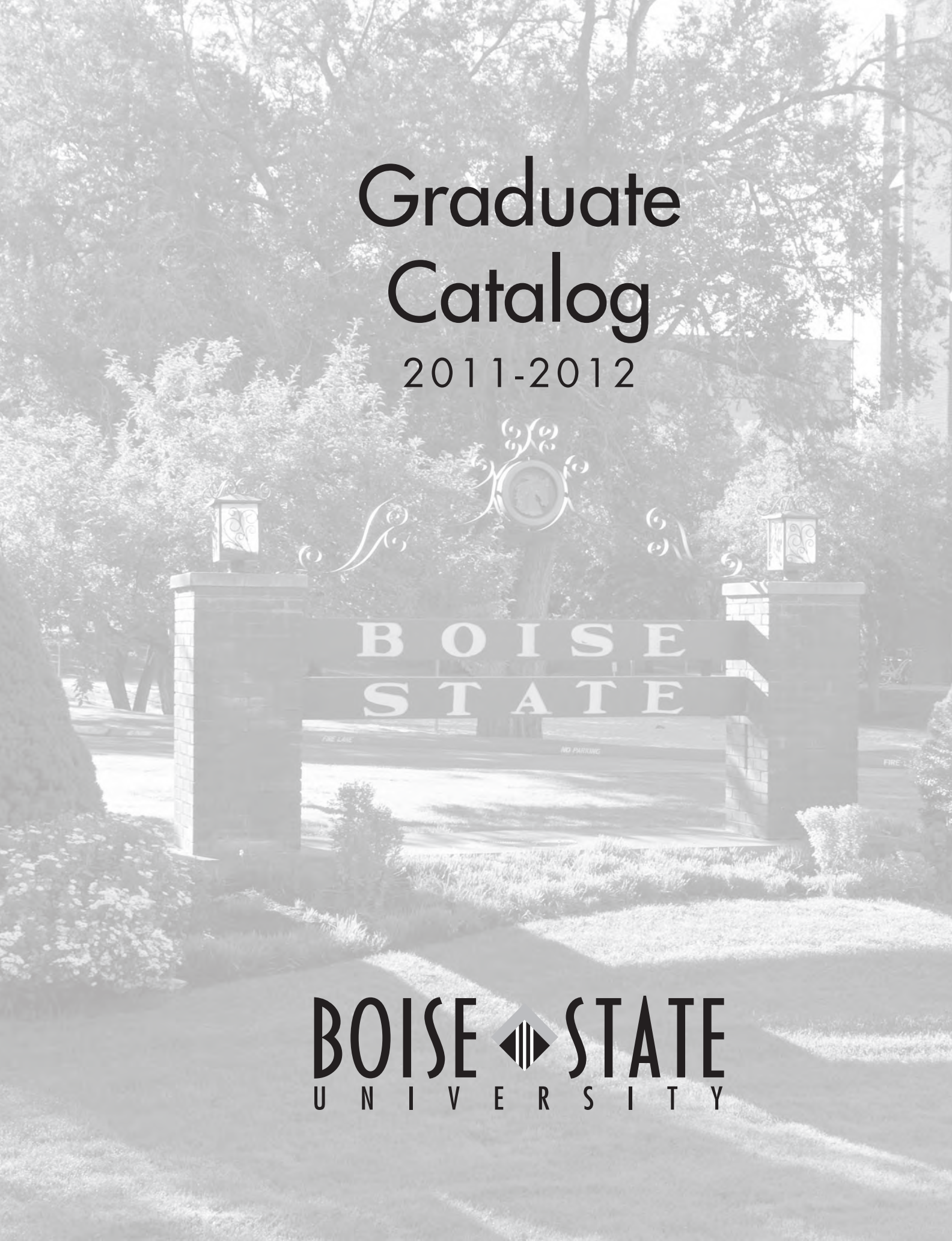
2011-2012

Boise State University
Graduate Catalog



Graduate Catalog

2011-2012

BOISE STATE UNIVERSITY

The graduate catalog describes the graduate programs offered by Boise State University and the policies, procedures, and requirements that govern those programs. Other pertinent university publications are the *Boise State University Schedule of Classes*, the *Boise State University Student Handbook*, and the *Boise State University Policy Manual*. All of these publications are available online at www.boisestate.edu. Prospective students are also encouraged to contact the graduate program coordinator of the program of interest for additional information.

Policy Statement Concerning Catalog Contents

The purpose of the Boise State Catalog is to provide current, articulate and accurate information about Boise State University for guidance of prospective students, for faculty and administrative officers, for students currently enrolled, and for other education or allied agencies.

Catalogs, bulletins, course and fee schedules, etc., are not to be considered as binding contracts between Boise State University and students. The university and its divisions reserve the right at any time, without advance notice, to: (a) withdraw or cancel classes, courses, and programs; (b) change fee schedules; (c) change the academic calendar; (d) change admission and registration requirements; (e) change the regulations and requirements governing instruction in, and graduation from, the university and its various divisions; and (f) change any other regulations affecting students. Changes shall go into force whenever the proper authorities so determine, and shall apply not only to prospective students but also to those who are degree-seeking at the time in the university. When economic and other conditions permit, the university tries to provide advance notice of such changes. In particular, when an instructional program is to be withdrawn, the university will make every reasonable effort to ensure that students who are within two years of completing the graduation requirements, and who are making normal progress toward the completion of those requirements, will have the opportunity to complete the program, which is to be withdrawn.

It is the policy of Boise State University to provide equal educational and employment opportunities, services, and benefits to students and employees without regard to race, color, national origin, sex, creed, age or handicap in accordance with Title VII of the Civil Rights Act of 1964, Title IX of the Educational Amendments of 1972. Sections 799A and 845 of the Public Health Act, and Sections 503 and 504 of the Rehabilitation Act of 1973, where applicable, as enforced by the U.S. Department of Health, Education, and Welfare.

NOTE: The courses contained in this catalog do not preclude or limit the university in its offerings for any semester or session nor do they restrict the university to the time block (semester) represented by the approved academic calendar.

Boise State University attempts to respond to the educational needs and wants of any and all students when expressed. Requests for courses to be offered whenever they are desired will be favorably received providing that a minimum of 12 qualified students enrolls in the class and a competent faculty member is available to teach the course.

Table of Contents

University Policies and Services

Colleges, Departments or Programs

Other Academic Units

Administration and Faculty

Academic Calendar

SUMMER SESSION 2011

For registration information see the Boise State Registration Guide.

February	22, Tues	Registration begins for Summer 2011.
March	15, Tues	Recommended last date to mail 2010-2011 and 2011-2012 *Free Application for Federal Student Aid* (FAFSA) for consideration for financial aid for Summer 2011. For more info see http://financialaid.boisestate.edu/.
May	12, Thurs	Fee-payment deadline for First 3-week and First 8-week sessions. Unpaid accounts will be assessed a $50 penalty. Students who do not plan to attend must cancel/drop classes using BroncoWeb by this date to avoid this penalty. For drop deadline dates see Deadlines by Session table.
	30, Mon	Memorial Day (No classes. University offices closed.)
June	2, Thurs	Fee-payment deadline for Second 3-week, First 5-week, Second 8-week, and 10-week sessions. Unpaid accounts will be assessed a $50 penalty. Students who do not plan to attend must cancel/drop classes by this date to avoid this penalty. For drop deadline dates see Deadlines by Session table.
	8, Wed	Summer Pell Grant eligibility determined by number of credits registered on this date.
	9, Thurs	**Last day to apply for graduation, using BroncoWeb, for graduate and undergraduate degrees and certificates to be awarded in August.**
	20, Mon	**Last day for final oral defense of dissertation, thesis, or project for August graduation.**
	23, Thurs	Fee-payment deadline for Third 3-week session. Unpaid accounts will be assessed a $50 penalty. Students who do not plan to attend must cancel/drop classes by this date to avoid this penalty. For drop deadline dates see Deadlines by Session table.
July	**1, Fri**	**Last day to submit *Application for Admission to Candidacy* form to Graduate Admission and Degree Services for graduate degrees to be awarded in December.**
	4, Mon	Independence Day. (No classes. University offices closed.)
	5, Tues	Last day to add undergraduate independent study and internship.
	5, Tues	**Last day to add graduate assessment, directed research, independent study, internship, practicum, or readings and conference.**
	5, Tues	**Last day to submit review copies of dissertation or thesis with final reading approval signed by supervisory committee chair to Graduate Dean's Office for August graduation.**
	7, Thurs	Fee-payment deadline for Second 5-week session. Unpaid accounts will be assessed a $50 penalty. Students who do not plan to attend must cancel/drop classes by this date to avoid this penalty. For drop deadline dates see Deadlines by Session table.
	14, Thurs	Fee-payment deadline for Fourth 3-week session. Unpaid accounts will be assessed a $50 penalty. Students who do not plan to attend must cancel/drop classes using BroncoWeb by this date to avoid this penalty. For drop deadline dates see Deadlines by Session table.
August	**1, Mon**	**Last day to submit *Report of Culminating Activity* form to Graduate Admission and Degree Services for graduate degrees to be awarded in August.**
	8, Mon	**Last day to submit final copies of dissertation or thesis to the Graduate Dean's Office for August graduation.**

Deadlines by Session – Summer 2011

Session	Last Date to Validate Conditional Registration	Start Date	Last Date to Add Without Permission Number	Drop Fee Begins	Last Date for Refund & Last Date to Register/Add or Drop Without a W*	Last Date to Drop or Completely Withdraw With a W. No Refund.	Last Date of Classroom Instruction	Grades Due
1st 3 week	May 12	May 16	May 16	May 18	May 17	May 23	June 5	June 7
2nd 3 week	June 2	June 6	June 6	June 8	June 7	June 13	June 26	June 28
3rd 3 week	June 23	June 27	June 27	June 29	June 28	July 5	July 17	July 19
4th 3 week	July 14	July 18	July 18	July 20	July 19	July 25	August 7	August 9
1st 5 week	June 2	June 6	June 7	June 9	June 8	June 17	July 10	July 12
2nd 5 week	July 7	July 11	July 12	July 14	July 13	July 22	August 14	August 16
1st 8 week	May 12	May 16	May 18	May 20	May 20	June 6	July 10	July 12
2nd 8 week	June 2	June 6	June 8	June 10	June 10	June 27	July 31	August 2
10 week	June 2	June 6	June 8	June 10	June 14	July 1	August 14	August 16

* Last date to add with permission number, last date to drop or completely withdraw without a W and receive a refund (less a $40.00 processing fee), last date to change from credit-to-audit or audit-to-credit.

FALL SEMESTER 2011

For Registration Information see the Boise State Registration Guide.

February	15, Tues	Free Application for 2011-2012 Federal Student Aid (FAFSA) priority filing deadline for **new and transfer students**. Students who will begin enrollment at BSU during the Fall 2011 semester should transmit the FAFSA, including any required signature pages, by February 15, 2011. New and transfer students who meet this deadline will automatically be considered for most need-based scholarships and tuition waivers and will receive priority consideration for certain grant, loan, and work-study programs.
	15, Tues	Scholarship deadlines: Last day to have all admission materials received in the Admissions Office for new and transfer students who want to be considered for scholarships for the 2011-2012 year. Last day for the *BSU Supplemental Scholarship Application* to be received in the Financial Aid Office to be considered for special 2011-2012 merit and need-based scholarships. Last day for the *Brown Scholarship* application to be received in the Honors College. The Boise State Financial Aid website contains a listing of departments that require a separate scholarship application.
March	15, Tues	Free Application for 2011-2012 Federal Student Aid (FAFSA) priority filing deadline for **continuing students**. Deadline for submitting *Supplemental Scholarship Application*. Students attending BSU Spring 2011 and who plan to continue attendance during the 2011-2012 academic year should transmit the FAFSA or renewal FAFSA, including any required signature pages, by March 15, 2011. Students who meet this deadline will receive priority consideration for certain scholarship, grant, loan, and work-study programs.
April	4, Mon	Registration for continuing students begins for Fall 2011 (by appointment).
June	1, Wed	Priority deadline for international student application materials to be received for fall semester consideration.
	1, Wed	Last day to submit financial aid documents to maintain 2011-2012 priority aid.
	29, Wed	**Last day for graduate, degree-seeking applicants for fall semester to have all admission materials received by Graduate Admission and Degree Services. Applications received after this date might not be processed in time to admit students to degree programs.**
	30, Thurs	Last day for undergraduate, degree-seeking applicants for fall semester to have all admission materials received by the Admissions Office. Students who miss this deadline will be considered for nondegree-seeking (7 or less credits) status only and are ineligible for financial aid.
August	15, Mon	University, college, and department activities for faculty begin this week.
	18, Thurs	**Fee-payment deadline for registered students. Unpaid accounts will be assessed a $50 penalty. Students who do not plan to attend must cancel/drop classes by this date to avoid this penalty. For drop deadline dates see Deadlines by Session table.**
	19, Fri	Residence halls open at 8:30 a.m. (in one-and-a-half hour shifts).
	19, Fri	Convocation.
	22, Mon	**Classes begin. Academic advising available throughout the semester.**
	26, Fri	Weekend University classes begin.
	26, Fri	Last day for faculty initiated drops for nonattendance during the first week of the semester to be turned in to the Registrar's Office.
	26, Fri	**Last day to apply for graduation, using BroncoWeb, for graduate and undergraduate degrees and certificates to be awarded in December.**
September	2, Fri	Last day to waive Student Health Insurance Plan (SHIP) using BroncoWeb.
	2, Fri	**Last day to register, add classes, change from credit-to-audit or audit-to-credit, and last day to drop classes without a W and receive a refund less applicable processing fees for Regular Session classes. For drop deadline dates see Deadlines by Session table.**
	2, Fri	Pell Grant eligibility determined by number of credits registered on this date.
	2, Fri	**Last day to add graduate dissertation, thesis, project, or portfolio credit.**
	2, Fri	Last day to submit Idaho Residency Determination Worksheet with documentation to Registrar's Office to declare Idaho residency for Fall 2011 consideration.
	5, Mon	Labor Day (No classes. University offices closed.)
	30, Fri	Last day to add undergraduate internship and independent study.
	30, Fri	**Last day to add graduate assessment, directed research, independent study, internship, practicum, or readings and conference.**
	30, Fri	Last day to drop classes with a W or completely withdraw from the Regular session. No refund. For other sessions, see Deadliness by Session table.

October	**3, Mon**	**Last day to submit *Application for Admission to Candidacy* form to Graduate Admission and Degree Services for graduate degrees to be awarded in May.**
	10, Mon	Columbus Day Observed (Classes in session and University offices open).
	14, Fri	**Recommended last day for final oral dissertation, thesis, or project defense for December graduation.**
November	**4, Fri**	**Last day to submit review copies of dissertation or thesis with final reading approval signed by supervisory committee chair to Graduate Dean's Office for December graduation.**
	11, Fri	Veterans Day. (Classes in session and University offices open.)
	19, Sat	Residence halls close (12 noon).
	26, Sat	Residence halls re-open (12 noon).
	21-27, M-Su	Thanksgiving holiday (No classes. University offices closed November 24-25.)
December	9, Fri	Classroom instruction ends.
	9, Fri	**Last day to submit final copies of dissertation or thesis to Graduate Dean's Office for December graduation.**
	11, Sun	Weekend University classes end.
	12-15, M-Th	Final semester examinations for the Regular session. Exam schedule listed on BroncoWeb.
	16, Fri	Residence halls close (12 noon).
	16, Fri	**Commencement.**
	20, Tues	Grade reports due on BroncoWeb.
	20, Tues	**Last day to submit *Report of Culminating Activity* form to Graduate Admission and Degree Services for graduate degrees to be awarded in December.**
	26-30, M-F	University offices closed.
January	2, Mon	New Year's Day observed. (University offices closed.)

Deadlines by Session – Fall 2011

Session	Last Date to Validate Conditional Registration	Start Date	Last Date to Add Without Permission Number	Drop Fee Begins	Last Date for Refund & Last Date to Register/Add or Drop Without a W*	Last Date to Drop or Completely Withdraw With a W. No Refund.	Last Date of Classroom Instruction	Grades Due
Regular	August 18	August 22	August 27	August 29	September 2	September 30	December 9**	December 20
1st 5 week 2nd 5 week 3rd 5 week	August 18 September 22 October 27	August 22 September 26 October 31	August 23 September 27 November 1	August 25 September 29 November 3	August 24 September 28 November 2	September 2 October 7 November 11	September 23 October 28 December 9	September 27 November 1 December 13
1st 8 week 2nd 8 week	August 18 October 13	August 22 October 17	August 24 October 19	August 26 October 21	August 26 October 21	September 12 November 7	October 14 December 9***	October 18 December 13
1st 10 week 2nd 10 week	August 18 September 22	August 22 September 26	August 24 September 28	August 26 September 30	August 30 October 4	September 16 October 21	October 28 December 9	November 1 December 13
12 week Mountain Home	August 18	August 22	August 25	August 29	August 31	September 22	November 11	November 15

*Last date to add with permission number, last date to drop or completely withdraw without a W and receive a refund (less a $40.00 processing fee), last date to change from credit-to-audit or audit-to-credit.

**The final exams for this session are December 12-15. See Final Examination Schedule listed on BroncoWeb for exact dates and times.

***This session is eight calendar weeks long with seven weeks of in-class instruction due to the Thanksgiving Week Break.

SPRING SEMESTER 2012

For registration information see the Boise State Registration Guide.

October	1, Sat	Recommended date to submit 2011-2012 FAFSA/Renewal Application for Spring 2012 financial aid (if you have not already done so) in order to have aid available to pay spring semester fees.
	15, Sat	Priority deadline for international student application materials to be received for spring semester consideration.
	24, Mon	Registration for continuing students begins for Spring 2012 and Intersession (by appointment).
November	15, Tues	Last day for undergraduate, degree-seeking applicants for Spring 2012 to have all admission materials received by the Admissions Office. Students who miss this deadline will be considered for nondegree-seeking (7 or less credits) status only.
December	**2, Fri**	**Last day for graduate, degree-seeking applicants for spring semester to have all admission materials received by Graduate Admission and Degree Services. Applications received after this date might not be processed in time to admit students to degree programs.**
	15, Thurs	Fee payment deadline for Intersession.
	19, Mon	Intersession classes begin.
January	9, Mon	University, college, and department activities for faculty begin this week.
	12, Thurs	**Fee-payment deadline for registered students. Unpaid accounts will be assessed a $50 penalty. Students who do not plan to attend must cancel/drop classes by this date to avoid this penalty. For drop deadline dates see Deadlines by Session table.**
	14, Sat	Residence halls open (12 noon).
	15, Sun	Intersession classes end.
	16, Mon	Dr. Martin Luther King, Jr./Idaho Human Rights Day. (No classes. University offices closed.)
	17, Tues	**Classes begin. Academic advising available throughout the semester.**
	20, Fri	Weekend University classes begin.
	23, Mon	Last day for faculty initiated drops for nonattendance during the first week of the semester to be turned in to the Registrar's Office.
	23, Mon	**Last day to apply for graduation, using BroncoWeb, for graduate and undergraduate degrees and certificates to be awarded in May.**
	30, Mon	Last day to waive Student Health Insurance Plan (SHIP) using BroncoWeb.
	30, Mon	**Last day to register, add classes, change from credit-to-audit or audit-to-credit, and last day to drop classes without a W and receive a refund less applicable processing fees for Regular Session classes. For drop deadline dates see Deadlines by Session table.**
	30, Mon	Pell Grant eligibility determined by number of credits registered on this date.
	30, Mon	**Last day to add graduate dissertation, thesis, project, or portfolio credit.**
	30, Mon	Last day to submit Idaho Residency Determination Worksheet with documentation to Registrar's Office to declare Idaho residency for Spring 2012.
February	20, Mon	Presidents' Day (No classes. University offices closed.)
	27, Mon	Last day to add undergraduate internship and independent study.
	27, Mon	**Last day to add graduate assessment, directed research, independent study, internship, practicum, or readings and conference.**
	27, Mon	Last day to drop classes with a W or completely withdraw from the Regular Session. No refund. For other sessions, see Deadliness by Session table.
	27, Mon	**Last day to submit Application for *Admission to Candidacy* form to Graduate Admission and Degree Services for graduate degrees to be awarded in August.**
March	**16, Fri**	**Recommended last day for final oral dissertation, thesis, or project defense for May graduation.**
	24, Sat	Residence halls close (12 noon).
	26, Mon	Spring vacation begins. (University offices open.)
	31, Sat	Residence halls re-open (12 noon).
April	1, Sun	Spring vacation ends.
	2, Mon	**Last day to submit review copies of dissertation or thesis with final reading approval signed by supervisory committee chair to the Graduate Dean's Office for May graduation.**

May	4, Fri	Classroom instruction ends.
	4, Fri	**Last day to submit final copies of dissertation or thesis to Graduate Dean's Office for May graduation.**
	6, Sun	Weekend University classes end.
	7-10, M-Th	Final semester examinations for the Regular session. Exam schedule listed on BroncoWeb.
	11, Fri	Residence Halls close (12 noon).
	12, Sat	**Commencement.**
	15, Tues	Grade reports due on BroncoWeb.
	15, Tues	**Last day to submit *Report of Culminating Activity* form to Graduate Admission and Degree Services for graduate degrees to be awarded in May.**

Deadlines by Session – Intersession 2011-2012

Session	Last Date to Validate Conditional Registration	Start Date	Last Date to Add Without Permission Number	Drop Fee Begins	Last Date for Refund & Last Date to Register/Add or Drop Without a W*	Last Date to Drop or Completely Withdraw With a W. No Refund.	Last Date of Classroom Instruction	Grades Due
Intersession	December 15	December 19	December 19	December 22	December 21	January 3	January 15	January 17

*Last date to add with permission number, last date to drop or completely withdraw without a W and receive a refund (less a $40.00 processing fee), last date to change from credit-to-audit or audit-to-credit.

Deadlines by Session – Spring 2012

Session	Last Date to Validate Conditional Registration	Start Date	Last Date to Add Without Permission Number	Drop Fee Begins	Last Date for Refund & Last Date to Register/Add or Drop Without a W*	Last Date to Drop or Completely Withdraw With a W. No Refund.	Last Date of Classroom Instruction	Grades Due
Regular	January 12	January 17	January 23	January 24	January 30	February 27	May 4**	May 15
1st 5 week 2nd 5 week 3rd 5 week	January 12 February 16 March 29	January 17 February 21 April 2	January 18 February 22 April 3	January 20 February 24 April 5	January 19 February 23 April 4	January 30 March 5 April 13	February 17 March 23 May 4	February 21 March 27 May 8
1st 8 week 2nd 8 week	January 12 March 8	January 17 March 12	January 19 March 14	January 23 March 16	January 23 March 16	February 7 April 2	March 9 May 4***	March 13 May 8
1st 10 week 2nd 10 week	January 12 February 16	January 17 February 21	January 19 February 23	January 23 February 27	January 25 February 29	February 13 March 19	March 23 May 4	March 27 May 8
12 week Mountain Home	January 12	January 17	January 20	January 24	January 26	February 17	April 6	April 10

*Last date to add with permission number, last date to drop or completely withdraw without a W and receive a refund (less a $40.00 processing fee), last date to change from credit-to-audit or audit-to-credit.

**The final semester exams for this session are May 7-10. See Final Examination Schedule listed on BroncoWeb for exact dates and times.

***This session is eight calendar weeks long with seven weeks of in-class instruction due to the weeklong Spring Break.

SUMMER SESSION 2012

For registration information see the Boise State Registration Guide.

June	6, Wed	Summer Pell Grant eligibility determined by number of credits registered on this date.
	7, Thurs	**Last day to apply for graduation, using BroncoWeb, for graduate and undergraduate degrees and certificates to be awarded in August.**
	18, Mon	**Last day for final oral dissertation, thesis, or project defense for August graduation.**
	28, Thurs	**Last day to submit Application for Admission to Candidacy form to the Graduate Admission and Degree Services for graduate degrees to be awarded in December.**
	29, Fri	Last day to add undergraduate independent study and internship.
	29, Fri	**Last day to add graduate assessment, directed research, independent study, internship, practicum, or readings and conference.**
July	4, Wed	Independence Day. (No classes. University offices closed.)
	10, Tues	**Last day to submit review copies of dissertation or thesis with final reading approval signed by supervisory committee chair to Graduate Dean's Office for August graduation.**
	30, Mon	**Last day to submit *Report of Culminating Activity* form to Graduate Admission and Degree Services for graduate degrees to be awarded in August.**
August	**6, Mon**	**Last day to submit final copies of dissertation or thesis to Graduate Dean's Office for August graduation.**

Deadlines by Session – Summer 2012

Session	Last Date to Validate Conditional Registration	Start Date	Last Date to Add Without Permission Number	Drop Fee Begins	Last Date for Refund & Last Date to Register/Add or Drop Without a W*	Last Date to Drop or Completely Withdraw With a W. No Refund.	Last Date of Classroom Instruction	Grades Due
1st 3 week	May 10	May 14	May 14	May 17	May 15	May 21	June 3	June 5
2nd 3 week	May 31	June 4	June 4	June 7	June 5	June 11	June 24	June 26
3rd 3 week	June 21	June 25	June 25	June 28	June 26	July 2	July 15	July 17
4th 3 week	July 12	July 16	July 16	July 19	July 17	July 23	August 5	August 7
1st 5 week	May 31	June 4	June 5	June 7	June 6	June 15	July 8	July 10
2nd 5 week	July 5	July 9	July 10	July 12	July 11	July 20	August 12	August 14
1st 8 week	May 10	May 14	May 16	May 18	May 18	June 4	July 8	July 10
2nd 8 week	May 31	June 4	June 6	June 8	June 8	June 25	July 29	July 31
10 week	May 31	June 4	June 6	June 8	June 12	June 29	August 12	August 14

*Last date to add with permission number, last date to drop or completely withdraw without a W and receive a refund (less a $40.00 processing fee), last date to change from credit-to-audit or audit-to-credit.

Graduate Degrees and Certificate Programs

The Graduate Admission Application is located at http://www.boisestate.edu/gradcoll/0001.html. A one-time application fee of $55.00 is required for a new graduate application. There is no fee for readmission to a subsequent semester. If you are not a citizen of the United States, are currently in the United States with a visa, or you have applied for permanent residency but have not been approved, you are considered an international student. Please refer to the following website for the International Admissions Office http://admissions.boisestate.edu/international/.

Graduate Degrees and Certificate Programs Offered				
Department	Degree	Program	Graduate Program Coordinator	Page
College of Arts and Sciences				
Art	M.A.	Master of Arts in Art Education	Kathleen Keys, Ph.D.	56
	M.F.A.	Master of Fine Arts, Visual Arts	Cheryl Shurtleff-Young, M.A.	55
Biological Sciences	M.A.	Master of Arts in Biology	Ian Robertson, Ph.D.	59
	M.S.	Master of Science in Biology	Ian Robertson, Ph.D.	59
	M.S.	Master of Science in Raptor Biology	Ian Robertson, Ph.D.	59
Chemistry and Biochemistry	M.S.	Master of Science in Chemistry	Ken Cornell, Ph.D.	62
English	M.F.A.	Master of Fine Arts in Creative Writing	Martin Corless-Smith, Ph.D.	64
	M.A.	Master of Arts in English, Literature	Matthew C. Hansen, Ph.D.	66
	M.A.	Master of Arts in English, Rhetoric and Composition	Matthew C. Hansen, Ph.D.	67
	M.A.	Master of Arts in Teaching English Language Arts	Bruce Robbins, Ph.D.	68
	M.A.	Master of Arts in Technical Communication	Mike Markel, Ph.D.	69
	Certificate	Technical Communication	Mike Markel, Ph.D.	70
Geosciences	Ph.D.	Doctor of Philosophy in Geophysics	Kasper van Wijk, Ph.D.	73
	Ph.D.	Doctor of Philosophy in Geosciences	Mark Schmitz, Ph.D.	75
	M.ESci.	Master of Earth Science	David Wilkins, Ph.D.	76
	M.S.	Master of Science in Geology	Mark Schmitz, Ph.D.	77
	M.S.	Master of Science in Geophysics	Kasper van Wijk, Ph.D.	77
	M.S.	Master of Science in Hydrologic Sciences	Shawn Benner, Ph.D.	184
	Certificate	Geographic Information Analysis	David Wilkins, Ph.D.	79
Mathematics	M.S.	Master of Science in Mathematics	Jodi Mead, Ph.D.	83
	M.S.	Master of Science in Mathematics Education	Sharon Walen, Ph.D.	84
Music	M.M.	Master of Music, Music Education	Jeanne M. Belfy, Ph.D.	87
	M.M.	Master of Music, Pedagogy	Jeanne M. Belfy, Ph.D.	87
	M.M.	Master of Music, Performance	Jeanne M. Belfy, Ph.D.	87
Interdisciplinary Studies Minimum of two departments	M.A.	Master of Arts in Interdisciplinary Studies	Daryl Jones, Ph.D.	186
	M.S.	Master of Science in Interdisciplinary Studies	Daryl Jones, Ph.D.	186
College of Business and Economics				
Accountancy	M.S.	Master of Science in Accountancy	Kirk Smith, Ph.D.	96
	M.S.	Master of Science in Accountancy, Taxation	Kirk Smith, Ph.D.	98
Graduate Studies	M.B.A.	Master of Business Administration	Kirk Smith, Ph.D.	91
	M.B.A.	Executive Master of Business Administration	Kirk Smith, Ph.D.	95
College of Education				
Bilingual Education	M.Ed.	Master of Education in Bilingual Education	Roberto E. Bahruth, Ph.D.	102
	M.Ed.	Master of Education in English as a Second Language	Roberto E. Bahruth, Ph.D.	102

— continued —

Graduate Degrees and Certificate Programs Offered (continued)				
Department	Degree	Program	Graduate Program Coordinator	Page
Counselor Education	M.A.	Master of Arts in Counseling	Bobbie Birdsall, Ph.D.	104
Counselor Education/ Community and Environmental Health	Certificate	Addiction Studies	Susan Esp, Ph.D.	190
Counselor Education/ Community and Environmental Health/Social Work	Certificate	Gerontological Studies	Bobbie Birdsall, Ph.D.	192
Curriculum, Instruction and Foundational Studies	Ed.D.	Doctor of Education in Curriculum and Instruction	Keith Thiede, Ph.D.	108
	M.A.	Master of Arts in Education, Curriculum and Instruction	Ted Singletary, Ph.D.	109
	M.Ed.	Master of Education in Educational Leadership	Kathleen Budge, Ed.D.	110
	M.S.	Master of Science in STEM Education	Louis Nadelson, Ph.D.	111
	Certificate	Secondary/K-12 Teaching	Ted Singletary, Ph.D.	111
Educational Technology	M.E.T.	Master of Educational Technology	Kerry Rice, Ph.D.	116
	M.S.	Master of Science in Educational Technology	Ross Perkins, Ph.D.	117
	Certificate	Online Teaching	Kerry Rice, Ph.D.	117
	Certificate	School Technology Coordination	Kerry Rice, Ph.D.	118
	Certificate	Technology Integration Specialist	Kerry Rice, Ph.D.	119
Kinesiology	M.K.	Master of Kinesiology Behavioral Studies Biophysical Studies Socio-historical Studies	Shelley Lucas, Ph.D.	121
	M.K.	Master of Kinesiology in Physical Education Pedagogy	Shelley Lucas, Ph.D.	122
	M.S.	Master of Science in Exercise and Sport Studies Behavioral Studies Biophysical Studies Socio-historical Studies	Shelley Lucas, Ph.D.	122
	M.S.	Master of Science in Physical Education Pedagogy	Shelley Lucas, Ph.D.	123
Literacy	M.A.	Master of Arts in Education, Literacy	Stan Steiner, Ph.D.	124
Special Education and Early Childhood Studies	M.A.	Master of Arts in Early Childhood Studies	Juli Pool, Ph.D.	128
	M.Ed.	Master of Education in Early Childhood Studies	Juli Pool, Ph.D.	128
	M.A.	Master of Arts in Special Education	Jack Hourcade, Ph.D.	129
	M.Ed.	Master of Education in Special Education	Jack Hourcade, Ph.D.	129
	Certificate	Consulting Teacher Endorsement	Evelyn Johnson, Ed.D.	130
Additional Education Programs	 M.A. M.A. M.S. M.M.	College of Arts and Sciences Master of Arts in Art Education Master of Arts in Teaching English Language Arts Master of Science in Mathematics Education Master of Music, Music Education	 Kathleen Keys, Ph.D. Bruce Robbins, Ph.D. Sharon Walen, Ph.D. Jeanne M. Belfy, Ph.D.	 56 68 84 87
	M.S.W.	College of Social Sciences and Public Affairs Master of Social Work	Roy Rodenhiser, Ph.D.	180
College of Engineering				
Civil Engineering	M.S.	Master of Science in Civil Engineering	George Murgel, Ph.D.	133
	M.Engr.	Master of Engineering in Civil Engineering	George Murgel, Ph.D.	134
	M.S.	Master of Science in Hydrologic Sciences	Shawn Benner, Ph.D.	184
Computer Science	M.S.	Master of Science in Computer Science	Amit Jain, Ph.D.	136
Electrical and Computer Engineering	Ph.D.	Doctor of Philosophy in Electrical and Computer Engineering	John Chiasson, Ph.D.	138

— continued —

Graduate Degrees and Certificate Programs Offered (continued)				
Department	Degree	Program	Graduate Program Coordinator	Page
Electrical and Computer Engineering	M.S.	Master of Science in Computer Engineering	Sin Ming Loo, Ph.D.	141
	M.Engr.	Master of Engineering in Computer Engineering	Sin Ming Loo, Ph.D.	141
	M.S.	Master of Science in Electrical Engineering	Said Ahmed-Zaid, Ph.D.	142
	M.Engr.	Master of Engineering in Electrical Engineering	Said Ahmed-Zaid, Ph.D.	142
Instructional & Performance Technology	M.S.	Master of Science in Instructional & Performance Technology	Donald Stepich, Ph.D.	146
	Certificate	Human Performance Technology	Donald Stepich, Ph.D.	147
	Certificate	Workplace E-Learning and Performance Support	Donald Stepich, Ph.D.	147
	Certificate	Workplace Instructional Design	Donald Stepich, Ph.D.	147
Materials Science and Engineering/Biological Sciences/Chemistry/Physics	M.S.	Master of Science in Materials Science & Engineering	William Knowlton, Ph.D. William Hughes, Ph.D.	187
	M.Engr.	Master of Engineering in Materials Science & Engineering	William Knowlton, Ph.D. William Hughes, Ph.D.	188
Mechanical and Biomedical Engineering	M.S.	Master of Science in Mechanical Engineering	Steve Tennyson, Ph.D.	150
	M.Engr.	Master of Engineering in Mechanical Engineering	Steve Tennyson, Ph.D.	150
College of Health Sciences				
Community and Environmental Health	M.H.S.	Master of Health Science Environmental Health Evaluation and Research Health Policy Health Promotion Health Services Leadership	Theodore McDonald, Ph.D.	153
Community and Environmental Health/Counselor Education	Certificate	Addiction Studies	Susan Esp, Ph.D.	190
Community and Environmental Health/ Counselor Education/ Social Work	Certificate	Gerontological Studies	Sarah Toevs, Ph.D.	192
Community and Environmental Health	Certificate	Health Services Leadership	Theodore McDonald, Ph.D.	155
Nursing	M.N.	Master of Nursing	Abigail A. Gerding, Ph.D.	158
	M.S.N.	Master of Science in Nursing	Abigail A. Gerding, Ph.D.	159
College of Social Sciences and Public Affairs				
Anthropology	M.A.	Master of Arts in Anthropology	Mark Plew, Ph.D.	161
	M.A.A.	Master of Applied Anthropology	Mark Plew, Ph.D.	162
Communication	M.A.	Master of Arts in Communication	Natalie Nelson-Marsh, Ph.D.	163
Criminal Justice	M.A.	Master of Arts in Criminal Justice	Lisa Growette Bostaph, Ph.D.	165
History	M.A.	Master of Arts in History	Jill Gill, Ph.D.	168
	M.A.H.R.	Master of Applied Historical Research	Jill Gill, Ph.D.	168
Psychology	Certificate	Family Studies	Elizabeth Morgan, Ph.D.	169
Public Policy and Administration	M.C.R.P.	Master of Community and Regional Planning	Susan Mason, Ph.D.	170
	M.P.A.	Master of Public Administration General Public Administration Environmental and Natural Resource Policy and Administration State and Local Government Policy and Administration	Elizabeth Fredericksen, Ph.D.	173
Public Policy and Administration	Certificate	Community and Regional Planning	Susan Mason, Ph.D.	175
	Certificate	Conflict Management	Suzanne McCorkle, Ph.D.	176

— continued —

Graduate Degrees and Certificate Programs Offered (continued)				
Department	Degree	Program	Graduate Program Coordinator	Page
Social Work	M.S.W.	Master of Social Work	Roy Rodenhiser, Ph.D.	180
Social Work/Community and Environmental Health/ Counselor Education	Certificate	Gerontological Studies	Bobbie Birdsall, Ph.D.	192
Interdisciplinary Programs				
Geosciences/Civil Engineering	M.S.	Master of Science in Hydrologic Sciences	Shawn Benner, Ph.D.	184
Interdisciplinary Studies	M.A.	Master of Arts in Interdisciplinary Studies	Daryl Jones, Ph.D.	186
	M.S.	Master of Science in Interdisciplinary Studies	Daryl Jones, Ph.D.	186
Materials Science and Engineering/Biological Sciences/Chemistry/Physics	M.S.	Master of Science in Materials Science and Engineering	William Knowlton, Ph.D. William Hughes, Ph.D.	187
	M.Engr.	Master of Engineering in Materials Science & Engineering	William Knowlton, Ph.D. William Hughes, Ph.D.	188
Community and Environmental Health/Counselor Education	Certificate	Addiction Studies	Susan Esp, Ph.D.	190
Community and Environmental Health/Counselor Education/ Social Work	Certificate	Gerontological Studies	Denice Liley, Ph.D.	192

Graduate College Staff

Office of the Graduate Dean

Business Building, Room 117 ..... (208) 426-3647
- Graduate Dean, John R. (Jack) Pelton ..... (208) 426-3647
- Associate Graduate Dean, Alfred Dufty ..... (208) 426-3647
- Management Assistant, Julie Gerrard ..... (208) 426-4203
- Administrative Assistant, Arlene Kaufman ..... (208) 426-3647
- Business Manager, Anne Herndon ..... (208) 426-1039

Graduate Admission and Degree Services

Business Building, Room 304 ..... (208) 426-3903
- Supervisor, Graduate Admission and Degree Services, Linda Platt ..... (208) 426-1074
- Technical Records Specialist, Ginger Moyers ..... (208) 426-4204
- Technical Records Specialist, Vacant ..... (208) 426-1337
- Office Specialist, Suzetta Gibson ..... (208) 426-3903

Business Building, Room 305
- Coordinator: Theses, Dissertations and Fellowship Programs, Jodi Chilson ..... (208) 426-3604

Additional Services

Financial Aid, Administration Building, Room 113 ..... (208) 426-1664
GMAT Testing, For information contact ..... (208) 323-8330
Other Pearson locations: (1-800) 247-8731 or register online at www.vue.com
GRE Testing, For information contact ..... (208) 373-1815
(1-800) 473-2255 or register online at www.prometric.com
GRE, GMAT Test Prep Classes, Extended Studies, 220 E. Parkcenter Boulevard ..... (208) 426-3492
International Student Admissions, Student Union Building ..... (208) 426-1757
Payment and Disbursement Center, Administration Building, Room 211 ..... (208) 426-1212
(208) 426-4148
PRAXIS Testing, Thomson Pro-Metric testing locations ..... (1-800) 853-6773
Registrar, Administration Building, Room 110 ..... (208) 426-4249

An Introduction to Boise State University

The City of Boise

Idaho's state capital and center of business, Boise is the largest metropolitan area between Portland, Oregon, and Salt Lake City, Utah. Set against a backdrop of the Rocky Mountain foothills, Boise is one of the most attractive and enjoyable cities in the nation. As a growing city of more than 211,000 people, Boise enjoys a varied economy based on high technology, agricultural products, tourism, government agencies, and manufacturing.

Known as the City of Trees, Boise is located in a land of great variety. To the south are rich farmlands; a rugged, high-mountain desert; North America's tallest sand dunes; and the famous Snake River Birds of Prey National Conservation Area. To the north, forests, whitewater rivers, and mountain lakes provide opportunities for fishing, hiking, hunting, and kayaking. Bogus Basin ski resort is just 16 miles from the Boise State University campus, and world-famous Sun Valley is less than three hours away.

The Boise Greenbelt, a network of city parks and riverside paths, runs through the campus. Three city parks are within walking distance of Boise State University, and a footbridge spans the Boise River, linking the campus to Julia Davis Park, where the Boise Art Museum, Idaho State Historical Museum, and Zoo Boise are located. An array of outdoor activities—camping, fishing, golf, hiking, river rafting, skiing, and tennis—are available only a short distance from campus.

The city and campus offer many cultural opportunities, such as the American Festival Ballet, Boise Civic Opera, Boise Philharmonic, Gene Harris Jazz Festival, Idaho Shakespeare Festival, Trey McIntyre Project, and a variety of other musical and theatrical productions. Touring artists frequently perform in the Morrison Center for the Performing Arts and Taco Bell Arena, both located on the Boise State University campus. In addition, Taco Bell Arena hosts a variety of national sporting events.

The University's Environment and Mission

Boise State University is the largest institution of higher learning in Idaho. It is located in the middle of one of the most vibrant and livable cities in America and the governmental and commercial center of the Gem State. Boise State has long been heralded as an institution devoted to excellence in classroom teaching, but a new dimension to its mission is emerging—that of a Metropolitan Research University of Distinction.

As the Boise economy has changed into a dynamic marketplace of ideas and products—especially with its highly sophisticated technology sector—and as the city became the heart of a major metropolitan region, it is a natural transition for the city's university to expand from a traditional comprehensive higher education institution with a strong teaching mission to become a metropolitan research institution.

Although there are other institutions of higher education in the region, Boise State University is the only "full-service," comprehensive state university in the region. As defined by the Idaho State Board of Education, it is Boise State's role and mission to be a "comprehensive, urban university serving a diverse population through undergraduate and graduate programs, research, and state and regional public service."

Today, the breadth of programs and services Boise State offers, and its unique location makes, it one of the nation's best places to live and learn. Boise State has academic programs in seven colleges—Arts and Sciences, Business and Economics, Education, Engineering, Health Sciences, Social Sciences and Public Affairs, and Graduate Studies—with a full-time faculty of more than 600.

The University's Vision and Strategic Plan

Boise State University's vision is to become a Metropolitan Research University of Distinction. This quest is the natural outcome of the interaction of our role in our state system of education and the environment in which we are located.

The achievement of this vision is guided by our strategic plan, *Charting the Course*. The plan captures the meaning of the phrase "Metropolitan Research University of Distinction" as defined by faculty members, staff members, students, and community members:

Academic Excellence—high quality, student-focused programs that integrate theory and practice, engage students in community based learning, and are informed by meaningful assessment.

Public Engagement—the University's academic mission is linked with its community partners to address issues of mutual benefit.

Vibrant Culture—embraces and fosters innovation, responsiveness, inclusiveness, accessibility, diversity, and effective stewardship.

Exceptional Research—progressive scholarship and creative activity, and graduate programs that have groundbreaking applications locally, regionally, and globally.

Charting the Course also establishes a set of ten goals to guide our actions in the five areas identified as being critical to our progress: resources, infrastructure, people, connections, and culture.

The University's History

In 1932, the Episcopal Church founded Boise Junior College, the first post-secondary school in Idaho's capital. When the Episcopal Church discontinued its sponsorship in 1934, Boise Junior College became a nonprofit, private corporation, sponsored by the Boise Chamber of Commerce and by the community. In 1939, the State Legislature created a junior-college taxing district to fund the college through local property taxes. By the end of the 1930s, Boise Junior College boasted an enrollment of 600 students. Originally located at St. Margaret's Hall, near the present site of St. Luke's Regional Medical Center, the school was moved in 1940 to its present location alongside the Boise River. In 1965, Boise Junior College became a four-year institution and was renamed Boise College. In 1969, the school was brought into the state system of higher education and the Graduate College was established. In 1971, two master's programs were approved; the Master of Business Administration and the Master of Arts in Elementary Education. In 1974, Boise State College became Boise State University, and in the following year the university established the Master of Public Administration. That same year, the Master of Arts in Education program was expanded to include options in secondary education. The University now offers over 75 distinct graduate curricula leading to master's and doctoral degrees, and enrolls approximately 2,000 graduate students each semester.

During its history, Boise State University has operated under the leadership of six presidents: Bishop Middleton Barnwell (1932-1934), Eugene B. Chaffee (1934-1967), John B. Barnes (1967-1977), John H. Keiser (1978-1991), Charles P. Ruch (1993-2003), Robert W. Kustra (2003-present).

Accreditation

Boise State University is a member of and is regionally accredited by the Northwest Commission on Colleges and Universities. The University holds permanent membership on the College Entrance Examination Board and in the College Scholarship Service Assembly. Many of Boise State University's academic programs have special accreditation or endorsement from one or more of the following organizations:

- ABET, Inc.
- American Bar Association
- American Chemical Society
- American Council for Construction Education
- American Health Information Management Association
- Association to Advance Collegiate Schools of Business — International
- Commission on Accreditation of Allied Health Education Programs
- Committee on Accreditation of Athletic Training Education
- Committee on Accreditation Respiratory Care
- Council for Accreditation of Counseling and Related Educational Programs
- Council on Social Work Education
- Joint Review Committee on Education in Radiologic Technology
- National Association of Schools of Arts and Design
- National Association of Schools of Music
- National Association of Schools of Public Affairs and Administration
- National Association of Schools of Theatre
- National Association of State Directors of Teacher Education and Certification
- National Council for Accreditation of Teacher Education
- National Environmental Health Science and Protection Accreditation Council
- National League for Nursing Accrediting Commission

Students

Each semester, Boise State University enrolls approximately 20,000 students in its academic programs. Students come to Boise State University from every county in Idaho, from nearly every state in the nation, and from numerous foreign countries. The university's urban setting both attracts and complements this diverse student body, which includes many nontraditional students as well as traditional students enrolling directly from high school.

Because Boise is the commercial, financial, health care, and governmental center of Idaho there are experiences and opportunities reaching beyond the classroom afforded to you that are unavailable elsewhere in the state. For instance, you can enhance classroom learning and gain valuable work experience by serving as an intern with the State Legislature, government agencies, or one of the many private businesses and industries in the area. In addition, you can attend a wide variety of civic, cultural, and social events hosted by Boise State University.

Graduate College

The Graduate College is the only academic unit at Boise State University whose sole concern and primary advocacy is graduate education. The Graduate College provides institutional oversight for more than 70 graduate curricula established across six academic colleges, with approximately 2,000 registered graduate students each semester. These programs span the breadth of graduate education, from practice-oriented master's programs that prepare students for leadership roles in a wide variety of professional settings, to research-focused Ph.D. programs that develop the next generation of scholars. The Graduate College works closely with the Graduate Council, the deans and graduate faculties of the six academic colleges, and external accrediting organizations to ensure excellence in all aspects of the graduate experience. The scope of activities embraced by the Graduate College is very broad, including attendance at regional and national forums on graduate education, strategic development of graduate programming, and problem resolution for individual faculty members and graduate students. The Graduate College also helps the university maintain a culture of collegiality and ethical behavior through its dedication to fairness and integrity.

Faculty

You will find that the university attracts faculty who are dedicated to excellence in teaching, creative in generating new knowledge, and generous in using their expertise to solve society's problems. Moreover, the faculty members at Boise State University recognize that high-quality teaching is their primary goal, giving you the opportunity to work with some of the West's most respected scientists, artists, researchers, and educators.

In addition to helping students learn, Boise State University faculty assist business, industry, educational institutions, government agencies, and professional groups with educational programs and research-and-development efforts. The university also assists organizations in upgrading the knowledge and skills of employees.

A Tour of the Campus

Boise State University's 113-acre main campus is bordered to the north by the Boise River, to the south by University Drive, to the east by Broadway Avenue, and to the west by Ann Morrison Park. Step across the footbridge spanning the Boise River, and you are in the open green space of Julia Davis Park, home to the Idaho State Historical Museum, the Boise Art Museum, and Zoo Boise. Just a few minutes' walk from campus is downtown Boise, where you will find inviting shops, fine restaurants, and vibrant nightlife.

On campus, the **Administration Building** contains the offices of several student services, including financial aid and the registrar. **University Health Services** including all medical, counseling, wellness, and SHIP are integrated under one roof in the **Norco Building**. The **Office of Advising and Academic Enhancement**, the **Career Center**, and the **Testing Center** are located together in the **Academic and Career Services Building**.

Classes are held in a number of buildings, including the Bronco Gym and Department of Kinesiology Building, the Business Building, the Education Building, the Engineering Building, the Fine Arts Building, the Liberal Arts Building, the Math/Geosciences Building, the Micron Engineering Center, the Morrison Civil Engineering Building, the Multi-Purpose Classroom Facility, the Public Affairs/Art West Building, and the Science Building. The **Interactive Learning Center** supports the latest in technology with twelve general use classrooms, multi-media labs, a classroom for research and innovation, and even a 3-D visualization classroom. It is also home to the **Center for Teaching and Learning**.

Other notable features of the campus include the **Albertsons Library**, as well as the **Centennial Amphitheatre—**an outdoor venue for lectures, concerts, and plays. The **Morrison Center for the Performing Arts** houses the music department, the theatre arts department, a 2,000-seat performance hall, a 200-seat recital hall, and a 200-seat theater. The **Student Recreation Center** houses informal recreation, intramural sports, outdoor programs, fitness opportunities, a wellness center, as well as athletic training facilities. Completed in the fall of 2010, the new 17,000 square foot **Aquatics Center** is a hub for water activities.

Boise State University students also enjoy a newly expanded **Student Union**, which provides facilities for social, recreational, and cultural activities. In addition to a quick-copy center and dining areas, the Student Union contains a game room, several lounges, the Boise State University Bookstore, and the Bronco Shop. While at the Student Union, you can stop by the Information Desk to pick up tickets for campus programs and community events, or visit the offices of more than 190 recognized student organizations. The admissions office is located on the first floor. The new West Entrance and **Transit Center** is a spacious and furnished entrance to the Student Union on the west side of the building. Patrons can wait inside or outside for shuttles now making the stop in front of the open sidewalk area.

Taco Bell Arena is Idaho's largest multi-purpose arena. When not filled with fans of Bronco basketball, gymnastics, or volleyball, Taco Bell Arena is the site of concerts, professional sporting events, and family entertainment. Nearby is **Bronco Stadium**, with a seating capacity of 32,000.

The Albertsons Library

The Albertsons Library provides access to a vast array of online journals, research databases, reference works, newspapers, books in print and electronic format, and other sources for research and learning. Ample study spaces for individuals and groups are accessible within the Library. Reference librarians are available in the Library and online to help students with their research. The Library has over 120 desktop computers available for student use, and an additional 40 laptops available for student checkout.

The Library's holdings exceed 2 million items, including access to:

- ~700,000 total volumes
- 88,000+ electronic journals
- 270+ online databases
- 50,000+ electronic books
- 100,000+ maps

The website http://library.boisestate.edu links to most library information resources including the library catalog, databases, online journals, and reference sources. Distance education students can find information on using the Library to obtain materials to support their coursework. Online resources are available for student access off campus.

The **Reference** area is the information hub of the Library where staff is available to provide on-demand assistance and guidance in conducting research using library resources. Reference librarians also offer research appointments to students to help guide the discovery of materials to support their class assignments and research. Research resources include an extensive collection of discipline-specific research databases and journals, and numerous specialty databases, handbooks, encyclopedias, dictionaries, U.S. government documents, and maps.

The **Special Collections** area contains manuscript collections, rare books, Basque studies material, and the university archives in addition to housing the papers of Senator Len B. Jordan, Senator Frank Church, and Interior Secretary/Governor Cecil Andrus. Selected resources from the department's photo collections are being digitized and appear online at http://digital.boisestate.edu. This area also maintains the Cecil D. Andrus and Frank Church Rooms.

The **Warren McCain Reading Room**, located on the second floor, contains a growing collection of books and materials about the literature, anthropology, and history of the American West and the Westward Movement.

Computer Resources

The university provides student access to a variety of computer resources. There are many computer labs to support classroom assignments and discipline specific needs. All Boise State University offices and computer labs are connected to the campus fiber-optic network. This allows access to the campus network or the Internet. Wireless access to the Internet is also available. See oit.boisestate.edu for more information.

Boise State University provides e-mail accounts for all students. Students who want access to e-mail and the Internet from home will need to purchase access through an Internet service provider (ISP).

As a student at Boise State University, you will have the opportunity to learn to use computers in ways appropriate to your discipline. For more information about the computer skills required in your discipline, please consult your academic advisor.

Athletics

The purpose of the intercollegiate athletic program at Boise State University is twofold. First, to provide opportunities for a meaningful athletic experience for as many students as possible. Second, to develop and maintain a competitive Division I athletic program that competes on a regional and national basis and strives for excellence in both men's and women's athletics within the boundaries of integrity and honesty.

The athletic program is an integral part of the university and its total educational purpose. The objectives of the athletic program are in harmony with the mission and role of the university.

The university adheres to the principles of fair play and amateur athletic competition as defined by the NCAA. The university is concerned with the welfare of the student-athlete and strives to ensure that every student-athlete has the opportunity to succeed academically and obtain a degree.

The university competes as a member of the Mountain West Conference (MWC) in football; men's and women's basketball, golf, tennis, indoor and outdoor track and field and cross country; women's gymnastics, soccer, softball, swimming and diving, and volleyball. The university competes in the PAC-10 in wrestling. Students that wish to participate in intercollegiate athletics should contact the head coach of the sport for which they wish to participate. A listing of head coaches is provided by calling the Athletic Department at (208) 426-1288, or on the web at www.broncosports.com.

The *Equity in Athletics Disclosure Report* for Boise State University is available online at http://ope.ed.gov/athletics/. The report provides participation rates, financial support, and other information on men's and women's intercollegiate athletic programs.

General Policies

Your Rights and Responsibilities

Boise State University challenges its students to reach their highest levels of performance, encourages them to excel in academics and sports, and invites them to participate in the many cultural and social activities available at the University. At the same time, Boise State University expects students to conduct themselves in a manner compatible with the university's function as an institution of higher learning. Therefore, we have published this catalog and the *Boise State University Student Handbook* to acquaint you with your rights and responsibilities as a student.

Confidentiality and Privacy

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. These rights include:

1. The right to inspect and review the student's education records within 45 days of the day the University receives a request for access.

   A student should submit to the registrar, dean, head of the academic department, or other appropriate official, a written request that identifies the record(s) the student wishes to inspect. The University official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the University official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.

2. The right to request the amendment of the student's education records that the student believes are inaccurate, misleading, or otherwise in violation of the student's privacy rights under FERPA.

   A student who wishes to ask the University to amend a record should write the University official responsible for the record, clearly identify the part of the record the student wants changed, and specify why it should be changed.

   If the University decides not to amend the record as requested, the University will notify the student in writing of the decision and the student's right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. The right to provide written consent before the University discloses personally identifiable information from the student's education records, except to the extent that FERPA authorizes disclosure without consent.

   The University discloses education records without a student's prior written consent under the FERPA exception for disclosure to school officials with legitimate educational interests. A school official is a person employed by the University in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the University has contracted as its agent to provide a service instead of using University employees or officials (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks.

   A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibilities for the University.

4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by the University to comply with the requirements of FERPA. The name and address of the Office that administers FERPA is: Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Avenue, SW, Washington, DC 20202-5901.

The information listed below is considered public information:

- your name
- your date of birth
- your local address
- your e-mail address
- your local telephone number
- your major field of study
- the dates you attended Boise State
- your student classification (freshman, sophomore, junior, senior, or graduate)
- your enrollment status (e.g., full-time or part-time)
- the type of degree you've earned from Boise State and the date on which it was awarded
- the Dean's list and other honors released to the newspapers

If you wish to limit access to this information, log into BroncoWeb and click on the FERPA Directory Restrictions link.

In discharging their official duties, Boise State employees may read, review, photocopy, and distribute to appropriate persons within the university any information contained in your student record. However, before distributing confidential information outside the university—even to members of your family—Boise State faculty and staff must first secure your written permission to do so.

You must complete a privacy release form to allow individuals other than yourself to access your student records related to grades, financial aid, and account. Log on to BroncoWeb, select Campus Personal Information, FERPA Restrictions, scroll down and select Edit FERPA/Directory Restrictions, and select Restrict or Release.

Academic Honesty

The university's goal is to foster an intellectual atmosphere that produces educated, literate people. Because cheating and plagiarism are at odds with that goal, they shall not be tolerated in any form. Students are expected to adhere to the rules and regulations as set forth in the *Student Code of Conduct*. Therefore, all work submitted by a student must represent that student's own ideas and effort; when the work does not, the student has engaged in academic dishonesty.

Plagiarism occurs when a person passes in another person's work as his or her own or borrows directly from another person's work

without proper documentation. For example, academic dishonesty occurs whenever a student:

- buys a paper or other project, then seeks to receive credit for the paper or project
- copies from another student's exam, either before, during, or after the exam
- uses "crib notes" while taking an exam or uses information stored in a computer or calculator (if prohibited from doing so)
- allows another person to take an exam in his or her place or takes an exam for another person
- collaborates on take-home exams when such collaboration is forbidden
- copies the work of another person and attempts to receive credit for that work
- fails to properly document source material in a paper or project
- receives editorial assistance that falls outside the scope of acceptable assistance

NOTE: The list above is intended only to provide general guidelines for recognizing and avoiding common types of academic dishonesty. It is in no way an exhaustive or comprehensive list of all the types of academic dishonesty.

Except in cases of major offenses, responding to academic dishonesty is the responsibility of the instructor of the course in which the dishonesty occurs. If a student is responsible of academic dishonesty, the student may be dismissed from the class and may receive a failing grade. Other penalties may include suspension or expulsion from school.

For more information about academic honesty, see the following publications:

- *Boise State University Policy Manual*
- *Boise State University Student Handbook*
- *Student Code of Conduct* (www.boisestate.edu/osrr/)

Student Records

Graduate Admission and Degree Services maintains a permanent file for each student who has applied for admission to the Graduate College; your file will contain your application for admission, official transcripts, test scores, and any correspondence related to that application. Another file at the Registrar's Office contains your permanent transcript record and all materials that document that transcript record. And, your faculty advisor will maintain a file of advising records, grade sheets, and correspondence.

In general, you have the right to review the documents that constitute your official record, and you have the right to request copies of those documents. If you request copies, Boise State University will provide them in a timely and efficient manner.

The following sections provide more detail about your official record at Boise State University, about your rights and responsibilities regarding that record, and about Boise State University policies and procedures governing the information that your record contains. Other publications discussing these matters include the *Boise State University Policy Manual* and the *Boise State University Student Handbook*.

Transcript Records

You may order official transcripts online through BroncoWeb at http://broncoweb.boisestate.edu/. The Registrar's Office makes every effort to ensure that your transcript records are up-to-date and accurate. If you believe there is an error or an omission on your transcript, please contact the Registrar's Office, Administration Building, Room 110, (208) 426-4249.

Verification of Your Enrollment Status

Your enrollment status is public information unless you have notified the university that you want it to be treated as confidential (see *Confidentiality and Privacy*). In responding to inquiries from outside the university, Boise State University calculates your enrollment status according to Table 1. Requests for verification of enrollment status often come from such businesses as employment agencies, insurance companies, and lending agencies.

Table 1
Schedule Used to Determine Graduate Enrollment Status for Federal Financial Aid

Number of Credits (currently enrolled)	Enrollment Status
9 or more	Full-Time
6-8	Three-Quarter Time
5	Half-Time
4 or fewer	Less Than Half-Time

Note: If you are receiving financial aid, please read the Financial Aid for Graduate Students section for additional enrollment requirements to maintain your financial aid eligibility.

Note: If you are receiving benefits under the G.I. Bill, you should contact the Veteran's Services Office, Administration Building, Room 111, (208) 426-1505, to determine your enrollment status.

Address Changes

Whenever Boise State University policies or procedures call for a university office to send written notification to a student, that obligation is fulfilled when that office mails the notification to the student's last address on record. Past students may update their address in person, by e-mail at bweb@boisestate.edu, or by sending in a change-of-address card from the post office to the BroncoWeb Help Center, Administration Building, Room 110. Currently enrolled students must update address information by logging on to BroncoWeb (http://broncoweb.boisestate.edu/).

Name Changes

You should promptly report a name change. You may do so by completing *Student Information Update* form and returning the form to the BroncoWeb Help Center, Administration Building, Room 110. You must provide evidence showing that your name has officially changed, such as a certified copy of a court order, a marriage certificate, or a dissolution decree reflecting the new name in full.

Note: If you are, or were at anytime, employed by the university (even as a student employee) you must report your name change to the Department of Human Resource Services, Administration Building, Room 218 (documentation requirements may differ).

Attendance Policy

You are responsible for attending courses for which you are enrolled. You are also responsible for making up any work you may have missed by failing to attend class, even if the absence was approved by the university, necessitated by illness, or necessitated by a personal emergency. In this sense, then, there are no "excused" absences. Please note, as well, that you may be automatically withdrawn from a course if you fail to attend one of the first two meetings of a class that meets more than once each week, or if you fail to attend the first meeting of a class that meets once each week, see *Registration Policies and Procedure*s, in "Faculty-Initiated Withdrawals."

Students should not expect that an instructor will withdraw them for nonattendance. The primary responsibility for course withdrawal rests with the student.

Final Examinations Schedules

Each semester, a schedule for final examinations is published online at http://registrar.boisestate.edu/calendar/finalexam.shtml. This schedule defines the dates and times during which all final examinations must be scheduled. All in-class final exams must be given during the officially scheduled final examination periods. An exception to the schedule is allowed only on an individual basis with the exception to be arranged between the instructor and the student.

Right of Appeal

You have the right to appeal any academic policy or requirement if either of the following conditions is present:

- Extenuating circumstances make it impossible for you to comply with the policy or requirement.
- An undue hardship would result from a strict application or interpretation of the policy or requirement.

Please note, however, that extenuating circumstances must be beyond your control and that undue hardship must be a condition far more serious than simple inconvenience. Documentation will be required and the timeliness of the appeal will be taken into consideration.

If you appeal an academic policy or requirement, that appeal will be reviewed by the Dean of the Graduate College and/or by the University Academic Appeals Committee as appropriate. Appeals for current semester complete withdrawals should be directed to the Office of the Registrar. For more information about appeals and grievances, see the *Boise State University Policy Manual* (www.boisestate.edu/policy/) and the *Boise State University Student Handbook* (http://www.boisestate.edu/vpsa/documents/StudentHandbook.pdf).

Questions About These Policies?

If you have questions about these policies, contact the Registrar's Office, Administration Building, Room 110, (208) 426-4249.

Graduate Admission Regulations

Admission Requirements

Any applicant who seeks admission to a graduate degree or certificate program is said to be applying as a *graduate degree-seeking student*. All other graduate applicants are said to be applying as *graduate nondegree-seeking students* and may be admitted to the Graduate College only.

Minimum Admission Requirements of the Graduate College All applicants must hold at least a baccalaureate degree from a regionally accredited U.S. college or university or a degree from a non-U.S. institution of higher education that is judged equivalent to a U.S. baccalaureate degree by the Registrar. If an applicant is applying as a graduate degree-seeking student, his or her undergraduate academic record must be of high enough quality to satisfy at least one of the following grade point average (GPA) requirements referred to a 4-point maximum scale:

1. a GPA of 3.0 or higher computed for all undergraduate credits;
2. a GPA of 3.0 or higher computed for the last half of the undergraduate credits.

Finally, if the applicant is applying as a graduate degree-seeking student and was a graduate degree-seeking student elsewhere but did not complete the program, the applicant must demonstrate that he or she departed that program in good academic standing.

Admission Requirements for a Graduate Degree or Certificate Program Achievement of the minimum admission requirements of the Graduate College does not guarantee admission to a graduate program. Furthermore, a student who is admitted to a graduate program is not guaranteed admission to any other graduate program at any time in the future. Admission to a graduate program is competitive and qualified applicants may be denied admission depending on a wide variety of programmatic variables. To ensure the best possible opportunity for admission, each applicant is strongly encouraged to review the specific admission requirements and application procedures given in this catalog for the program of interest. Applicants are cautioned that review of an application cannot begin until all application materials are received, including those that are specific to a particular program. Applicants can monitor the arrival of admission materials using the Admissions Check-list on BroncoWeb.

Admission Status for Degree-Seeking Students

An applicant who applies as a graduate degree-seeking student and holds the required baccalaureate degree will be admitted initially to the Graduate College but not to the graduate program. Once Graduate Admission and Degree Services receives all necessary application materials, a *Program Admission Recommendation* form with supplemental student information is forwarded to the academic unit that has administrative responsibility for the program. The applicant is said to be in PDR admission status (PDR indicates pending department review). An applicant in PDR status may enroll in courses for which he or she is eligible but is not permitted to work toward a graduate degree or certificate and is not eligible for federal financial aid. If the applicant completes courses while in PDR status and is later admitted to a graduate program, the responsible academic unit may recommend to the Graduate College that some of the courses completed during PDR status be applied to the credit requirements of the program. The academic unit may define a maximum number of applicable credits of this type for the program, but the maximum cannot exceed one third of the total credit requirement, and all final decisions on the applicability of such credit rests with the Dean of the Graduate College or designee.

The academic unit responsible for the graduate program takes the application into consideration using its normal process to determine the admission recommendation. This process is usually overseen by a faculty member who is appointed as the *graduate program coordinator*. Once the process is complete, the graduate program coordinator completes the *Program Admission Recommendation* form and forwards it to the Dean of the Graduate College. The graduate dean or designee makes the final admission decision and notifies the student and the academic unit. If the student is admitted to a graduate program, his or her admission status changes from PDR to either *regular status* or *provisional status* and the student becomes eligible for financial aid. Regular status indicates admission of the student to full graduate standing in a program with no special conditions. Provisional status establishes special conditions such as a probationary period and/or other specific stipulations that must be satisfied by the student within a reasonable time. If the academic unit and the Graduate College jointly determine that the student has been successful in removing the conditions of provisional status, then the student is promoted to regular status by the Dean of the Graduate College. If promotion to regular status is denied, then the student is dismissed from the graduate program by the Dean of the Graduate College.

Admission Status for Nondegree-Seeking Students

A student admitted to the Graduate College as a graduate nondegree-seeking student may take courses of interest for which he or she is eligible but may not work toward a graduate degree or certificate and is not eligible for federal financial aid. If the student completes courses while in graduate nondegree-seeking status and later applies and is admitted to a graduate program, the responsible academic unit may recommend to the Graduate College that some of the courses completed while in graduate nondegree-seeking status be applied to the credit requirements of the program. The academic unit may define a maximum number of applicable credits of this type for the program, but the maximum cannot exceed one third of the total credit requirement, and all final decisions on the applicability of such credit rests with the Dean of the Graduate College or designee.

Application Deadlines for Degree-Seeking Students

The academic unit responsible for a graduate program may set one or more standard application deadlines appropriate for management of the program. Prospective students who wish to apply as graduate degree-seeking students are therefore strongly encouraged to consult the description of the program of interest in this catalog and to contact the graduate program coordinator with questions regarding application deadlines. If the program is not specific about its

Table 2
How to Apply for Admission to the Graduate College at Boise State University

To apply for admission to Boise State University as a graduate student, submit to the Graduate Admission and Degree Services all materials indicated in the checklist below. All admission materials must be received by the posted deadline. (See Academic Calendar.)

New Degree-Seeking Graduate Applicants

- *Graduate Admission Application.*
- One-time, nonrefundable application fee. (Current fee online at www.boisestate.edu/gradcoll)
- Official* transcripts from all postsecondary institutions (excluding Boise State) showing all courses completed and degrees earned.
- Official GRE, GMAT, MAT scores, if required.
- Letters of recommendation and/or other materials that may be required by the program to which you are applying.

Returning Applicants Previously Admitted to a Graduate Degree Program

Boise State graduate students who applied for the Fall 2005 or later semester will remain active for 6 consecutive semesters (including summer) before a new *Graduate Admission Application* is required.

Boise State graduate students who were admitted but did not attend prior to Fall 2005, must reapply for admission. Submit the following:

- *Graduate Admission Application.*
- One-time, nonrefundable application fee. (Current fee online at www.boisestate.edu/gradcoll)
- Official* transcripts from all other colleges attended, if not previously submitted.
- Official* GRE, GMAT, MAT scores, if required and not previously submitted.

Note: Boise State University retains admission materials for five years after your last term of enrollment. Please submit new materials if you have not attended Boise State within the last five years.

Nondegree-Seeking Applicants

- *Graduate Admission Application.*
- One-time, nonrefundable application fee. (Current fee online at www.boisestate.edu/gradcoll)
- Official* transcript from institution (excluding Boise State) which granted your highest degree.

Applicants Seeking a Second Undergraduate Degree

- Apply for admission through undergraduate admissions office.
- Admission status is Senior.

Applicants from Other Countries

- *International Student Graduate Application*
- One-time, nonrefundable application fee. (Current fee online at www.boisestate.edu/gradcoll)
- Official* proof of four-year degree and transcripts from each educational institution attended beyond high school.**
- Official TOEFL or IELTS results.
- Official GRE, GMAT scores, if required.
- Letters of recommendation and other materials required by the program to which you are applying.
- Documentation to demonstrate adequate financial resources to cover one year living expenses, tuition, and fees.

* To be official, transcripts must be sent by the issuing institution directly to Boise State University, Graduate Admission and Degree Services.
** If written in a language other than English, these documents must be accompanied by an English translation.

application deadlines, then the Graduate College strongly encourages prospective students to submit all application materials seven to nine months in advance of the anticipated starting semester or term. If the program states that it accepts applications at any time, then the application deadlines are those of the Graduate College:

Fall Semester 2011:	June 30, 2011
Spring Semester 2012:	November 15, 2011
Summer Sessions 2012:	One week before classes begin

Application Deadlines for Nondegree-Seeking Students

Applications from graduate nondegree-seeking students are accepted any time but prospective students are advised to submit all application materials well in advance of the start of the desired semester or summer session.

Applying as a Degree-Seeking Student

To apply for admission as a degree-seeking student, complete the following steps before the application deadline (see *Application Deadlines for Degree-Seeking Students* above).

1. Submit an application for admission to Graduate Admission and Degree Services, along with the nonrefundable application fee. An online application is available at www.boisestate.edu/gradcoll.
2. Request official transcripts from each educational institution (excluding Boise State) you have attended beyond high school. Instruct the institutions to send the transcripts directly to Graduate Admission and Degree Services, Room 304, Business Building, Boise State University, 1910 University Drive, Boise, ID 83725-1110.

3. Take any standardized exam, such as the Graduate Record Exam (GRE), required by the program to which you are applying. Ensure that the results of these exams are forwarded to Graduate Admission and Degree Services. The institutional code for Boise State University for all examinations administered by the Educational Testing Service (ETS) is 4018. For information about specific program requirements, see the program descriptions in this catalog.
4. Submit all required letters of recommendation and other materials to the program to which you are applying.

After completing the steps listed above, you are eligible for admission to the Graduate College. Completing the steps, however, does not ensure that you will be admitted to the graduate program of interest. You must be recommended for admission by the academic unit that is responsible for the graduate program, and the Dean of the Graduate College must concur with that recommendation. You are officially admitted to the graduate program only after receiving written notification that you have been admitted from the graduate dean.

Applying as a Nondegree-Seeking Student

You may apply for admission as a nondegree-seeking student if you have earned a bachelor's degree or a higher degree from a regionally accredited institution.

If you decide to become a degree-seeking student, you will be required to meet the GPA and all other requirements of the program to which you apply.

To apply for admission as a nondegree-seeking student, complete the following steps before the deadline specified in the current academic calendar.

1. Submit an application for admission to Graduate Admission and Degree Services, along with the nonrefundable application fee. The current application fee is available online at www.boisestate.edu/gradcoll or call (208) 426-3903.
2. Request an official transcript from the institution (excluding BSU) that granted your bachelor's degree or higher degree. Instruct the institution to send the transcript directly to:
   Graduate Admission and Degree Services
   Business Building, Room 304
   Boise State University
   1910 University Drive
   Boise, ID 83725-1110

If you are a nondegree-seeking student, you may register for as many credits as you wish as long as the courses are not restricted and you have met the necessary prerequisites. However, you will be ineligible for federal financial aid.

Applying for Admission as an International Graduate Student

Boise State University welcomes applications from qualified students from around the world. The requirements described below apply to applicants in the United States with a visa or applicants who plan to come into the United States with a student visa.

You may apply for admission as a graduate student if you have earned—from an accredited institution—the equivalent of a U.S. four-year bachelor's degree or a higher degree.

To apply for admission to Boise State, complete the following steps before June 1 for Fall semester and before October 15 for Spring semester.

1. Submit a completed *International Student Graduate Application* to the Boise State University International Admissions Office, Student Union Building, along with the nonrefundable application fee. The current application fee is available online at www.boisestate.edu/gradcoll or call (208) 426-3903.
2. Request official transcripts and proof of degree from each educational institution you have attended beyond high school or the equivalent of high school. Instruct the educational institutions to send the transcripts directly to:
   International Admissions Office
   Boise State University
   1910 University Drive
   Boise, ID 83725

   If written in a language other than English, these documents must be accompanied by an official English translation. If the institutions cannot submit these documents directly to the Boise State University International Student Admissions Office, you may substitute 1) certified or attested copies of official academic records and 2) proof of four-year degree. The certified copies must be issued or attested by an official of the institution.
3. If your first language is not English, take the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System test (IELTS). Ensure that the results of these exams are forwarded to the Boise State University International Admissions Office. (The institution code number for Boise State University is 4018.) All graduate programs (except those noted below) require a minimum TOEFL score of 550 (paper-based test) or 80 (internet-based test), or an IELTS score of 6.0.

   Graduate programs in the following academic units require a minimum TOEFL score of 587 (paper-based test) or 95 (internet-based test), or an IELTS score of 6.5: College of Business and Economics, College of Engineering and Department of Special Education and Early Childhood Studies. TOEFL or IELTS scores must not be older than two years at the time of application.
4. Take the Graduate Management Admission Test (GMAT), Graduate Record Exam (GRE), or any other predictive exam required by the program to which you are applying. Ensure that the results of these exams are forwarded to:
   Graduate Admission and Degree Services
   Business Building, Room 304
   Boise State University
   Boise, ID 83725-1110

   The institution code number for Boise State University for all examinations administered by the Educational Testing Service (ETS) is 4018. For information about specific program requirements, see the program descriptions in this catalog.

5. Submit all letters of recommendation and other materials required by the program to which you are applying.
6. Submit documentation sufficient to demonstrate that you have financial resources to cover one calendar year of living expenses, tuition, and fees. Send the documentation to the International Admissions Office.

After you have met all of the requirements for admission and have been accepted to a degree program, the International Admissions Coordinator will issue you an *I-20* form, which you will need to obtain an F-1 student visa. If you would like additional information, please contact the International Admissions Office at: (208) 426-1757.

NOTE: All international students must purchase the mandatory health insurance.

Administrative Handling of Admission Documents

Graduate Admission and Degree Services coordinates graduate admission processes and can provide additional information and answer questions. All documents received by Boise State University in conjunction with an application for admission become the property of the university. These documents will be duplicated only for use in admission decisions and student advising at the university. Moreover, the original documents will neither be returned to the applicant nor forwarded to any individual unaffiliated with Boise State University or forwarded to any other agency, organization, college, or university.

Questions About These Policies?

If you have questions about these policies, contact:
Graduate Admission and Degree Services
Business Building, Room 304
(208) 426-3903 or 426-4204
FAX (208) 426-2789
www.boisestate.edu/gradcoll
e-mail: gradcoll@boisestate.edu

International Admissions Office
Student Union Building
(208) 426-1757
http://admissions.boisestate.edu/international
e-mail: interntl@boisestate.edu

Graduate Academic Regulations

The general academic regulations of the University that apply to graduate degree and certificate programs are developed by the Graduate Council and administered by the Graduate College. Under this general regulatory umbrella, each program is locally administered by an academic unit assigned the task by the University. The academic unit may be a department, a college, or a specially appointed unit consisting of graduate faculty from multiple departments or colleges. Although an academic unit may develop local regulations for a specific program under its control, the local regulations must be consistent with the general regulations and are therefore subject to review and approval by the Graduate Council. It is the responsibility of the Graduate Faculty and each graduate student to become thoroughly familiar with all regulations that govern the graduate program in which they participate.

Faculty

The *Graduate Faculty* consists mostly of full-time, tenure-track or tenured faculty members and research faculty members of Boise State University who are approved by the Graduate Council to teach graduate-level courses, supervise graduate students, and participate in conducting graduate programs. Other qualified individuals may be approved by the Graduate Council to serve as members of the *Adjunct Graduate Faculty* for a fixed term not to exceed seven years (renewable).

The *graduate program coordinator* for a graduate program is appointed by the academic unit that is responsible for the program. The graduate program coordinator must be a member of the Graduate Faculty and must be a tenure-track or tenured faculty member of the academic unit. The duties of the graduate program coordinator are jointly defined by the academic unit and the Graduate College. Some graduate programs have a *graduate program director* who may supervise the graduate program coordinator or function as the graduate program coordinator in whole or in part.

Terminology

The annual academic cycle at Boise State University consists of the fall semester, spring semester, and summer session. Critical dates associated with the annual academic cycle are specified on the *academic calendar*. Consecutive fall and spring semesters constitute an *academic year*. Unless otherwise indicated, the term *credit* refers to academic semester credit. A graduate student is considered to be engaged in *full-time graduate study* by the Graduate College in a given semester or session if the student is enrolled in at least nine graduate credits. Credit is said to be *applicable credit* if it is eligible for application to the credit requirements of a graduate degree or certificate program.

Simultaneous Enrollment in Multiple Programs

A student at Boise State University may be enrolled in only one graduate program at a time. The only exceptions are a student may be enrolled simultaneously in 1) a graduate degree program and a graduate certificate program or 2) two graduate certificate programs. Both exceptions are subject to further conditions (see the *Regulations for Graduate Certificate Programs* section).

Guidance of Graduate Students

A graduate student must come under the guidance of either a supervisory committee or an advisor soon after admission to a graduate program. A supervisory committee is required for any master's student engaged in thesis activity and for any doctoral student. Proper guidance of graduate students is of primary importance and a major responsibility of the graduate program coordinators and the graduate faculty.

Supervisory Committee A supervisory committee is composed of members of the graduate faculty who are appointed to the supervisory committee by the Graduate College and charged with the guidance of a student admitted to a specific graduate degree program. The committee consists of a *major advisor* who serves as chair plus at least two but no more than four additional members. The major advisor is the primary mentor for the student and must be a member of the graduate faculty with a departmental endorsement to chair a supervisory committee. A majority of the committee membership must hold appointments in the academic unit responsible for the program.

Appointment of a supervisory committee is initiated by the academic unit by submitting a *Request to Appoint a Supervisory Committee* form. This form must include a recommended committee membership based on a reasonable match between student and faculty academic interests. The graduate dean can either appoint the recommended committee or solicit an alternative recommendation from the unit. Once the graduate dean is satisfied with the recommended committee, he or she formally appoints the committee and provides appropriate notifications. A change in the membership of the supervisory committee can be made after initial appointment but only according to policies and procedures developed by the academic unit and only with the approval of the Graduate College. The *Request to Appoint a Supervisory Committee* form must be submitted by the academic unit to Graduate Admission and Degree Services as early as possible in the career of the graduate student, and certainly no later than the time of submission of the *Application for Admission to Candidacy* form.

Advisor A graduate student may come under the guidance of a single advisor if the student is not otherwise required to be under the guidance of a supervisory committee. An advisor is a member of the Graduate Faculty and is appointed by the academic unit responsible for the graduate program. It is permissible for the graduate program coordinator or a graduate program director to be appointed advisor for all students enrolled in the graduate program. It is also permissible for an advisor to guide a master's student (but not a doctoral student) through all graduate activities except for a culminating activity that is to be directed by a supervisory committee appointed as described above.

Procedural Advisor With prior approval of the Graduate College, a member of the department who does not have Graduate Faculty status may be assigned to advise some or all of the students in a graduate program on procedural issues, such as the submission of paperwork, which required classes need to be taken, and other general programmatic matters. Procedural advisors may not advise

students in graduate programs that require a thesis or dissertation; these students must be mentored by a Supervisory Committee (see section on *Supervisory Committee*).

Academic Performance

Every student who is admitted to a graduate program (degree or certificate) must meet all of the academic performance requirements listed in this section. In order to conform with previous policies of the Graduate College on academic performance, the semester grade point average (GPA) requirement is effective beginning with the Fall 2003 semester and the determination of academic notice disregards earlier semesters and summer sessions.

Semester GPA Requirement A student who is admitted to a graduate program is required to achieve a semester grade point average (semester GPA) of 3.0 or better each and every semester or summer session in which he or she is enrolled through program completion. If a student fails to meet the semester GPA requirement and the failure is the first occurrence since admission to the program, the student will be placed on academic notice by the Graduate College but will be allowed to continue in the program. If a student fails to meet the semester GPA requirement and the failure is the second occurrence since admission to the program, the student will be dismissed from the program by the Graduate College. The semester GPA requirement is null for those semesters or summer sessions where none of the credits taken by the student are applicable to the GPA calculation.

Program GPA Requirement A student who is admitted to a graduate program is required to list on the *Application for Admission to Candidacy* form (for a degree program) or the *Proposed Plan of Study for a Graduate Certificate* form (for a certificate program) the specific courses to be applied to meet all of the credit requirements defined for the program. The *program grade point average* (program GPA) is the grade point average computed for this set of specific courses. If a student fails to achieve a program GPA of 3.0 or better, the student is ineligible for a degree or certificate and should consult the graduate program coordinator for advice and possible options.

Individual Course Requirements A student who is admitted to a graduate program cannot list a course on an *Application for Admission to Candidacy* form (for a degree program) or a *Proposed Plan of Study for a Graduate Certificate* form (for a certificate program) if the course is graded lower than C or P, except that an undergraduate course, a G-designated course, or a transfer course cannot be listed if it is graded lower than B. If the grade for a specific course that is required by the program is too low to be listed on the *Application for Admission to Candidacy* form or the *Proposed Plan of Study for a Graduate Certificate* form, and if that grade cannot be improved under the course repetition policy (see *Repetition of Courses* below), then it is not possible for the student to complete the program requirements and he or she will be dismissed from the program by the Graduate College.

Repetition of Courses

Repetition to Improve a Grade A graduate student who has completed a graduate course for credit may attempt to repeat that course to improve the grade but only once and only with the written approval of the graduate program coordinator. Certain graduate courses cannot be repeated to improve a grade, including 590 Practicum/Internship, 591 Project, 592 Portfolio, 593 Thesis, and 693 Dissertation. If an attempt to repeat a course to improve a grade results in a grade of W or CW, an additional attempt is not permitted unless extenuating circumstances can be documented that are clearly beyond the control of the student. For regulations governing repetition of undergraduate courses please refer to the undergraduate catalog.

A course that has been completed more than once in an attempt to improve a grade can be listed only once on the *Application for Admission to Candidacy* form (for a degree program) or the *Proposed Plan of Study for a Graduate Certificate* form (for a certificate program); the listed semester and grade must be for the most recent completion for credit. All course registrations on record beyond published drop dates for each semester or session appear on the student transcript and GPA computations are carried out according to *Boise State University Policy Manual,* BSU Policy 2200. In order to conform with previous policies of the Graduate College on course repetition to improve a grade, a graduate student may not repeat a Boise State course to improve a grade of F if the course was initially completed prior to the start of the Fall 2003 semester.

Repetition for Credit The university-wide graduate course numbers and some departmental courses (such as MUS 563 Major Instrument Pedagogy I and MUS 564 Major Instrument Pedagogy II) are associated either with specifically defined efforts by an individual student or with content characteristics that can change from semester to semester. These courses and others like them may be repeated for credit and listed multiple times by a graduate student on his or her *Application for Admission to Candidacy* form (for a degree program) or *Proposed Plan of Study for a Graduate Certificate* (for a certificate program) form subject to all approvals and limitations of the graduate program and the Graduate College.

Transfer Credit

Transfer credit is academic credit that is awarded to a student by another college or university and is approved for application to the requirements of a graduate certificate or degree at Boise State University. Transfer credit must satisfy the following restrictions:

1. Transfer credit must be academic credit representing a grade of A or B awarded by a regionally accredited U.S. college or university or by a non-U.S. institution of higher education that is approved for transfer purposes by the Registrar; continuing education units (CEU) and other non-academic credits are ineligible for transfer credit.
2. Culminating activity courses, courses where the grade is based only on attendance, and courses representing experiential learning, regardless of the level (undergraduate or graduate), are ineligible for transfer credit.
3. Credit applied to meet the requirements of a previously earned degree of any type at another institution is ineligible for use as transfer credit. The only exception is that credit applied to a previously earned master's degree at another institution may be applicable as transfer credit to a doctoral degree.
4. Application of transfer credit must be approved by the academic unit responsible for the graduate program.

The maximum transfer credit that can be applied to meet the requirements of a graduate certificate or degree is limited by the fundamental requirement that at least two thirds of the total credit requirement for the degree or certificate must be earned at Boise State University since admission to the program. An academic unit responsible for a particular graduate program may impose a more

restrictive transfer policy (fewer allowed transfer credits) for that program. In the case of a cooperative graduate program offered by Boise State University and the University of Idaho and/or Idaho State University, a more liberal transfer policy (more allowed transfer credits) is permissible but only if the Graduate Council has approved a higher transfer credit limit for the program.

G-Courses and Dual-Listed Courses

A student enrolled in a G-course or a 500-level dual-listed course must complete all work required of students earning undergraduate credit (in the corresponding non-G-course or 400-level dual-listed course) plus substantial work at the graduate level. The Graduate College strictly limits the application of G-courses to no more than one third of the total credit requirement of a graduate certificate or degree. Furthermore, the Graduate College recommends that the applicable credit earned in G-courses and 500-level dual-listed courses together should not exceed one half of the total credit requirement of a graduate certificate or degree. The academic unit responsible for a graduate program may further restrict the application of G-courses and 500-level dual-listed courses.

Application of Credit Already Applied to a Graduate Certificate

A graduate certificate is viewed by some academic units as an intermediate accomplishment or stepping stone between a baccalaureate degree and a master's degree (see *Regulations for Graduate Certificate Programs*). The Graduate College therefore allows graduate credit (but not undergraduate credit) earned at Boise State University and previously applied to meet the requirements of a Boise State graduate certificate to also be applied to meet the requirements of a Boise State master's degree. This process is known as *dual application* and is subject to the following stipulations: 1) the dual application of credit must be consistent with those policies of the master's program that may limit or preclude such application; 2) all time constraints imposed by the Graduate College that govern the applicability of the credit must be met (including the requirement that at least two thirds of the total credit requirement for the master's degree must have been earned since admission to the master's program); 3) the dual application of credit must be approved by the student's advisor or by the chair of the supervisory committee. In no case may dual application of credit exceed one half of the total credit requirement for the master's degree. The creation of analogous arrangements between graduate certificates and doctoral degrees is prohibited by the Graduate Council.

In-Service Teacher Education or Professional Education Workshop Courses

Credit earned for in-service teacher education or professional education workshop courses (for which a special low fee is charged by the university) cannot be applied to meet the credit requirements of a graduate certificate or degree program (see section V.R.3.a.x.(d) of the *Governing Policies and Procedures of the Idaho State Board of Education*).

Challenge Courses

If a graduate student requests the opportunity to challenge a course in a graduate program, the department offering the course will decide whether to grant that opportunity. Proctoring fees and/or per-credit fees may be charged by the department. For interdisciplinary courses, the decision will be made by the coordinator of the graduate program to which the course applies.

Graduate Credit Option for Undergraduate Students

An undergraduate student who is also a senior may request approval to enroll in a G-course or a 500-level course. The student must complete a *Permit for Seniors to Take Graduate Courses*. The student may request permission to earn graduate credit (option I) or upper-division undergraduate credit (option II) for a given course but cannot request both options.

Graduate Credit (Option I) Graduate credit earned under a *Permit for Seniors to Take Graduate Courses* does not imply that the student will be admitted to a graduate program at Boise State University. If the student completes courses for graduate credit while a senior and is later admitted to a graduate program, the responsible academic unit has the authority to decide which courses (if any) completed as a senior can be applied to the credit requirements of the program. The academic unit also has the authority to define a maximum number of applicable credits of this type for the program but the maximum cannot exceed one third of the total credit requirement.

Upper-Division Undergraduate Credit (Option II) The student may apply up to two successfully completed 500-level courses to his or her upper-division credit requirement for a baccalaureate degree.

Other Limitations Undergraduate students may not enroll in 600-level courses. Courses offered as part of the Master of Business Administration program are excluded from enrollment by all undergraduate students. Students admitted by the Graduate College to work on an accelerated master's degree are not governed by a *Permit for Seniors to Take Graduate Courses*, but are subject to course limitations imposed by the Graduate College and by the participating academic unit or units.

Admission to Candidacy

Admission to candidacy is a critically important process required of all students enrolled in graduate degree programs. The candidacy process serves as the official review by the Graduate College of the detailed plan of study for a graduate student. This official review allows the Graduate College to identify degree requirements and graduate regulations that may have been overlooked or misinterpreted by the student or anyone providing advice to the student. If left undetected and uncorrected too long, these shortcomings can seriously delay progress toward a graduate degree. The candidacy process also helps the Graduate College update the student's academic advisement report and enables the university to fulfill its obligations to accrediting organizations. Because of the importance of the candidacy process, a student who has not been admitted to candidacy cannot participate in a final oral examination or apply for graduation.

Candidacy Requirements for a Master's Student A master's student may be admitted to candidacy if the student is in regular status and has completed a set of courses sufficient to satisfy at least half of the total credit requirement with individual course grades of C or better and a GPA of at least 3.0 (computed for the set of courses).

Candidacy Requirements for a Doctoral Student A doctoral student may be admitted to candidacy if the student is in regular status, has passed the comprehensive examination, has satisfied any language proficiency requirement and the doctoral residency

requirement, and has completed a set of courses sufficient to satisfy at least half of the total credit requirement with individual course grades of C or better and a GPA of at least 3.0 (computed for the set of courses).

General Procedures A student who is enrolled in a graduate degree program applies for admission to candidacy by submitting to the Graduate College an *Application for Admission to Candidacy* form. This form lists the courses proposed by the student to fulfill the total credit requirement for a degree as defined in a particular annual edition of the *Boise State University Graduate Catalog* (see *Choice of Graduate Catalog* below). The student is responsible for completing and signing the *Application for Admission to Candidacy* form and obtaining the necessary signatures at the program level (chair of the supervisory committee or advisor, graduate program coordinator or director). The form is then submitted by the student to the Graduate College for final review and approval. If any deficiencies are found in the list of courses, the Graduate College will notify the student and help find remedies that are acceptable to the Graduate College. Once the *Application for Admission to Candidacy* form is approved by the Graduate College, the student is notified that admission to candidacy has been granted, and the form becomes a binding agreement between the student and the university. A change in an approved *Application for Admission to Candidacy* form can be requested by submitting a *Request for Adjustment of Academic Requirements* form to the Graduate College (see *Adjustment of Academic Requirements* below).

Timing Although the academic calendar specifies a submission deadline for the *Application for Admission to Candidacy* form, the Graduate College strongly recommends that the student submit the form as soon as half of the total credit requirement for the degree is completed. If a student waits until the deadline specified in the academic calendar and the Graduate College finds deficiencies, the student may not be able to complete the necessary corrective actions before the anticipated graduation date. It is therefore in the best interests of the student to carefully prepare the *Application for Admission to Candidacy* form and submit it to the Graduate College in a timely manner.

Proposed Plan of Study for a Graduate Certificate

A student who is enrolled in a graduate certificate program is required to submit a *Proposed Plan of Study for a Graduate Certificate* form to the Graduate College. This form lists the courses proposed by the student to fulfill the total credit requirement for a certificate as defined in a particular annual edition of the graduate catalog (see *Choice of Graduate Catalog* below). The student is responsible for completing and signing the *Proposed Plan of Study for a Graduate Certificate* form and obtaining the necessary signature at the program level (graduate program coordinator or director). The form is then submitted by the student to the Graduate College for final review and approval. A student should submit the *Proposed Plan of Study for a Graduate Certificate* form to the Graduate College shortly after admission to the certificate program (for certificates that can be completed in one or two semesters) or in the semester when at least half of the total credit requirement for the certificate is expected to be met (if the student anticipates spending more than two semesters to complete the certificate). If any deficiencies are found in the list of courses on the *Proposed Plan of Study for a Graduate Certificate* form, the Graduate College will notify the student and help find remedies that are acceptable to the Graduate College. The Graduate College cannot guarantee that these remedies will not delay progress by the student toward the certificate. It is therefore in the best interests of the student to submit the *Proposed Plan of Study for a Graduate Certificate* form in a timely manner. Once the *Proposed Plan of Study for a Graduate Certificate* form is approved by the Graduate College, the student is notified and the form becomes a binding agreement between the student and the university. A change in an approved *Proposed Plan of Study for a Graduate Certificate* form can be requested by submitting a *Request for Adjustment of Academic Requirements* form to the Graduate College (see *Adjustment of Academic Requirements* below).

Choice of Graduate Catalog

A student enrolled in a graduate degree or certificate program may choose to meet the requirements for that program as defined in any annual edition of the *Boise State University Graduate Catalog* in effect after the student is admitted to the program by the Graduate College. The program requirements so specified by the student will be used by the Graduate College to evaluate the *Application for Admission to Candidacy* form (for a degree program) or the *Proposed Plan of Study for a Graduate Certificate* form (for a certificate program), and by the Registrar for the final degree or certificate audit.

Adjustment of Academic Requirements

The *Boise State University Graduate Catalog* chosen by a student determines the program requirements that must be met by the student (see *Choice of Graduate Catalog* above). The specific courses that have been approved by the Graduate College as meeting those program requirements are known as the *academic requirements* for the student, and are listed on the approved *Application for Admission to Candidacy* form (for a degree program) or the approved *Proposed Plan of Study for a Graduate Certificate* form (for a certificate program). A student may request a change in academic requirements only by submitting a *Request for Adjustment of Academic Requirements* form to the Graduate College for review and approval.

Theses and Dissertations

A student must undergo a process involving three primary steps on the way to satisfying the thesis or dissertation requirement of a graduate degree program. These steps must come in proper order, and each subsequent step cannot be undertaken until the student successfully completes the prior step:

1. The thesis or dissertation is defended by the student before a committee known as the *defense committee* (which always includes the supervisory committee); this event is formally referred to as the *final oral examination*.
2. The student makes any modifications that may be required by the defense committee and submits the revised thesis or dissertation to the chair of the supervisory committee (or designee) for a *final reading approval*.
3. The student submits the thesis or dissertation and supporting documentation to the Graduate College for a *format review* by the Coordinator of Theses and Dissertations, and responds to any corrections that may be required by the Graduate College.

After successfully completing the format review, the student submits the final version of the thesis or dissertation to the Graduate

College in electronic and paper formats for review by the Dean of the Graduate College. The thesis or dissertation requirement of a graduate degree program is not considered satisfied until the Dean of the Graduate College approves this final version.

The detailed requirements and procedures of the format review are given in a manual called *Standards and Guidelines for Theses and Dissertations* (available online from the Graduate College). A thesis or dissertation that does not conform to the *Standards and Guidelines for Theses and Dissertations* will be returned by the Graduate College to the student for corrections. The issues addressed in *Standards and Guidelines for Theses and Dissertations* ensure that the thesis or dissertation is complete in terms of the components required by the Graduate College, that the final version meets technical publication standards (e.g., minimum margins for binding purposes), and that certain legal requirements involving copyright are given proper attention by the student. The Graduate College also has the authority to make rulings on matters of style, but since these concerns often depend on the discipline, considerable latitude to determine style is usually granted to the academic units responsible for individual graduate programs. Although an official format review cannot be initiated until the chair of the supervisory committee (or designee) has granted final reading approval of the thesis or dissertation, the Graduate College will provide preliminary advice on request. Students with questions about any aspect of the format review are encouraged to contact the Coordinator of Theses and Dissertations, Business Building, Room 305.

After the thesis or dissertation has passed the format review, the student must provide the Graduate College with the final version as an electronic file (in a specified format) and in the form of two paper copies (on 25% cotton paper); the student must also pay a binding fee for the paper copies. This submission of the final version of the thesis or dissertation to the Graduate College should take place before the deadline published in the academic calendar. The electronic file is for the digital university repository known as *ScholarWorks*, and the two paper copies are for the Albertsons Library (one for the archive and one for circulation). If the academic unit also requires a paper copy, the student submits that copy with an additional binding fee to the Graduate College for a total of three paper copies. Any paper copies beyond those required for the library and the academic unit are considered personal copies by the Graduate College. A limit is imposed by the Graduate College on the number of paper personal copies; the student must pay a binding fee for each personal copy.

Because a thesis or dissertation is considered to be a significant contribution to a discipline, the Graduate College requires that all theses and dissertations be archived and made publicly accessible. Theses and dissertations are archived and made publicly accessible primarily through *ScholarWorks* and secondarily through the traditional paper library collection. The conditions for public access to a thesis or dissertation may vary depending on a variety of circumstances. These conditions are requested by the student and reviewed by the Graduate College on an *Access Agreement for a Thesis or Dissertation* form. Approval by the Graduate College of an *Access Agreement for a Thesis or Dissertation* form is a graduation requirement for all students who complete a thesis or dissertation as part of a graduate degree program.

Report of Culminating Activity

The term *culminating activity* refers to a summary exercise that is carried out by a graduate student with a high degree of independence, is based on advanced study and accumulated graduate experience, is integrative in nature, and is typically the focus of the student near the end of his or her graduate career. The traditional culminating activities for master's students and doctoral students are the thesis and dissertation, respectively, but master's students in the United States now engage in many other forms of culminating activity such as project, portfolio, capstone course, series of practicums, recital (performing arts), and comprehensive examination. Satisfactory completion of a culminating activity (or part of a culminating activity) is normally recorded by a grade in a graduate course set up specifically for that purpose (e.g., 592 Portfolio). However, if a culminating activity is not represented by a course, then the result of the activity must be documented by a *Report of Culminating Activity* form that is submitted to the Graduate College by the academic unit responsible for the graduate program.

Applying for Graduation

A student nearing completion of the requirements for a graduate degree or certificate program must apply for graduation and pay the required graduation fee. This process initiates a final audit of the student's academic records by the Registrar and reserves an official embossed diploma or certificate. To apply for graduation and pay the graduation fee, a student logs on to BroncoWeb, chooses the Apply for Graduation option from the drop down list under Academics. The process should be completed no later than the deadline published in the academic calendar for the semester or summer session in which the student intends to complete the degree or certificate requirements. The month of the expected date of graduation is May for students finishing in the spring semester, August for students finishing in the summer session, and December for students finishing in the fall semester. Students who miss their expected date of graduation twice are placed on inactive status by the Registrar and are required to contact the Registrar before attempting to establish a new graduation date.

Commencement

Candidates for graduate degrees are eligible to participate in commencement if cleared to do so by the Registrar. A student completing a graduate certificate program is not eligible to participate in commencement unless he or she is also a candidate for a graduate degree and has been cleared for participation by the Registrar. Diplomas and certificates are mailed to recipients after satisfactory completion of a final degree audit of all program requirements by the Registrar.

Program Time Lines

All time lines associated with graduate degree and certificate programs are published each semester or summer session in the academic calendar. These time lines include application and fee payment deadlines, last day to add and drop courses, starting and ending dates for semesters and sessions, last days for filing program forms, final oral examinations, and the submission deadlines for theses and dissertations. It is the responsibility of the student to be familiar with these time lines.

Regulations for Graduate Certificate Programs

Description

A graduate certificate program is limited in scope relative to a graduate degree program but provides an opportunity for advanced study with a particular focus. Successful completion of a graduate certificate program is a coherent academic accomplishment that leads to an official notation on the student transcript. Subject to the regulations that govern a specific program, a graduate certificate can often serve as an intermediate accomplishment for a student whose ultimate goal is a graduate degree.

Certificate Requirements

The curriculum of a graduate certificate program is a set of academic courses identified by the university as suitable for properly qualified students who wish to study a clearly delineated topic within a disciplinary or interdisciplinary setting. The curriculum may include both specific courses and a selection of elective courses.

Credit Requirements The program of study leading to a graduate certificate must satisfy the following two stipulations: 1) the total credit requirement cannot exceed half of the total number of credits required by the most closely related master's degree program offered by the University; 2) the total credit requirement must include at least nine graduate credits earned in courses exclusive of university-wide graduate courses 591-600, 693, and 696-697. Any deviation by the certificate curriculum from these two stipulations must be approved by the Graduate Council. A limited number of credits earned in undergraduate courses may be applied to meet the credit requirements (see *Restrictions on Certain Courses* below). In all cases, at least two thirds of the total credit requirement must be earned at Boise State University since admission to the program. All credit must be academic credit and must be approved for application by the graduate program coordinator.

Culminating Activity A culminating activity is normally not a requirement of a graduate certificate program but is not precluded from being a requirement. If a culminating activity is required, it must be of limited scope relative to the culminating activity required by the most closely related master's degree program offered by the university. The culminating activity must be represented in the total credit requirements using an appropriate course.

Duration of Graduate Study All requirements for a graduate certificate (including courses completed at another college or university) must be started and completed within a single continuous interval of no more than four years.

Restrictions on Certain Courses

All graduate certificate programs must be consistent with the following restrictions. An academic unit responsible for a particular certificate program may impose more stringent restrictions for that program.

Undergraduate Courses The number of applicable credits earned in undergraduate courses cannot exceed one third of the total number of required graduate credits. An undergraduate course applied to a graduate certificate must be an upper division course with a grade of B or better and the course cannot represent effort for an undergraduate thesis, internship, practicum, independent study or research, conference or workshop, experiential learning, study abroad, seminar, or colloquium.

Previously Applied Courses In general, any course applied to a previously earned degree of any type at any institution cannot be applied to meet the credit requirements of a graduate certificate program. An exception that applies to a specific certificate program may be approved by the Graduate Council.

Simultaneous Enrollment in a Graduate Certificate and Degree Program

A student may be enrolled simultaneously in a graduate certificate program and a graduate degree program subject to the following conditions: 1) the content of the two programs are logically related; 2) the specific policies of the two programs permit co-enrollment; 3) the co-enrollment is approved by the chair of the supervisory committee or the advisor and the coordinators of the graduate certificate and degree programs. Because at least two thirds of the total credit requirement for a certificate must be earned at Boise State University since admission to the certificate program, graduate degree-seeking students who are interested in acquiring a graduate certificate as an intermediate step should promptly apply to the certificate program.

Enrollment in More Than One Certificate Program

Simultaneous enrollment in two graduate certificate programs is permitted but only under the condition that both certificate programs allow simultaneous enrollment. Simultaneous enrollment in more than two graduate certificate programs is prohibited by the Graduate College.

Regulations for Master's Programs

Description

Although programs leading to a master's degree are very diverse, they generally fall into two categories depending on overall emphasis and the nature of the culminating activity. Scholarly programs emphasize research or creative activities and require a thesis that is defended formally in a public setting and archived and made publicly accessible by the university. Professional programs emphasize the application of advanced knowledge and skills and require a project, capstone course, series of practicums, recital, or comprehensive examination. Both scholarly and professional master's programs involve substantial study beyond the baccalaureate degree, impart the methodology of discovery or creation in a given discipline, and prepare students to contribute at an advanced level to the workplace and to the community.

Degree Requirements

Advisor or Supervisory Committee A student admitted to a master's program must be under the guidance of either a supervisory committee or an advisor appointed soon after admission; see *Guidance of Graduate Students* in the *Graduate Academic Regulations* section of this catalog.

Credit Requirements The program of study leading to a master's degree must include at least 30 total credits. All credit applied to meet the total credit requirement must be graduate academic credit except that a limited number of credits earned in undergraduate courses outside the major are allowed (see *Restrictions on Certain Courses* below). In all cases, at least two thirds of the total credit requirement must be earned at Boise State University since admission to the program. All credit must be approved for application by the chair of the supervisory committee or the advisor.

Language Proficiency A master's student must be proficient in English and may be required to demonstrate a prescribed level of ability in one or more other languages. If language ability beyond proficiency in English is required, the means of verification are defined by the academic unit responsible for the program.

Culminating Activity The program of study leading to a master's degree must include at least one culminating activity that may be a thesis, project, portfolio, capstone course, series of practicums, performance recital or lecture recital, or comprehensive examination. The culminating activity or activities should be represented in the program by nonzero credit but cannot exceed one third of the total credit requirement. Exceptions to the culminating activity requirement can only be made on a programmatic basis and must be approved by the Graduate Council.

Final Oral Examination A student enrolled in a master's program with a thesis requirement must pass a final oral examination that probes his or her ability to describe and defend all aspects of the thesis in both a public setting and a private conference with experts (see *Final Oral Examination* below).

Duration of Graduate Study The minimum duration of study for the master's degree is one academic year after admission to the program. All requirements for a master's degree (including courses completed at another college or university) must be started and completed within a single continuous interval of no more than seven years.

Restrictions on Certain Courses

All master's programs must be consistent with the following restrictions. An academic unit responsible for a particular master's program may impose more stringent restrictions for that program.

Undergraduate Courses An undergraduate course may be applied to meet the credit requirements of a master's degree subject to the following restrictions:

1. The course must be an upper–division course and must be in a discipline outside the major field of study of the master's program.
2. A grade of B or better must be earned in the course.
3. The course cannot represent effort for an undergraduate thesis, internship, practicum, independent study or research, conference or workshop, experiential learning, study abroad, seminar, or colloquium.

Previously Applied Courses In general, any course applied to a previously earned degree of any type at any institution cannot be applied to meet the credit requirements of a master's program. The only exception is a course that qualifies for application under regulations for a second master's degree at Boise State University (see *Second Master's Degree* below) or an accelerated master's degree. Each course allowed under this exception is subject to the following additional restrictions:

1. A grade of B or better must have been earned in the course.
2. The course cannot represent effort for a graduate culminating activity or for experiential learning.

Courses allowed under this exception are also limited by any stipulations that apply to the requirements for second master's degrees and accelerated master's degrees.

Aggregate Restriction No more than one third of the total credit requirement exclusive of culminating activity credit can be met by the sum of credits earned in undergraduate courses, pass-fail courses, and university-wide courses numbered 590, 594-598, and 696-697 (or equivalent courses that may appear as transfer credits).

Thesis

A thesis documents original research or creative activity carried out by a student enrolled in a master's program. A research thesis is characterized by a clearly stated proposition or hypothesis that is investigated using analysis and synthesis of data or other scholarly evidence; the thesis must include a discussion of the relevant literature and demonstrate the ability of the student to independently and successfully address a significant intellectual problem with concepts and methods that are accepted in the major field of study. A creative thesis includes works of fiction, poetry, and creative nonfiction and is associated with the Master of Fine Arts in Creative Writing program.

Thesis Proposal A thesis proposal must be approved in advance by the supervisory committee. The thesis proposal presents the background, objectives, scope, methods, and time lines of the thesis research. Substantive work done by the student prior to the appointment of the supervisory committee or work represented by credit other than 593 Thesis (such as 596 Independent Study and 696 Directed Research) is not acceptable for the thesis under any conditions.

Registration for Thesis Credit A master's student must register for at least one credit of 593 Thesis in any semester or session in which the student is engaged in thesis activity, including the semester or session of the final oral examination, regardless of the number of 593 Thesis credits already accumulated by the student. The student cannot undertake the final oral examination unless enough 593 Thesis credit has been accumulated to meet the degree requirement for such credit. The student is not required to register for 593 Thesis credit in the semester or session subsequent to the semester or session in which the Graduate College receives the *Final Reading Approval* pages signed by the chair of the supervisory committee (or designee). The student must submit the signed *Final Reading Approval* pages to the Graduate College no later than the last day of the final exam week of the semester or session. Failure to meet this deadline will require the student to register for at least one credit of 593 Thesis in the subsequent semester or session.

Thesis Grading All 593 Thesis credits are graded in-progress (IP) until a final grade of either pass (P) or fail (F) is assigned by the academic unit responsible for the program. A grade of pass (P) is assigned to all 593 credits if the final oral examination is passed, and a grade of fail (F) is assigned to all 593 credits if the student fails the final oral examination. See *Final Oral Examination* and *Failure of a Comprehensive Examination or Final Oral Examination* below.

Final Thesis Approvals and Procedures It is important for the student to keep in mind that a grade of pass (P) in all 593 credits is not sufficient to satisfy the thesis requirement for a master's degree and does not clear a student for graduation. A thesis that has been successfully defended by the student at the final oral examination must also be granted final reading approval by the major advisor (chair of the supervisory committee), and must pass the format review of the Graduate College. The thesis in final form must also be approved by the Dean of the Graduate College, and because the thesis is expected to be available to other scholars and to the general public, the entire thesis must be archived and made publicly accessible. Please refer to *Theses and Dissertations* in the *Graduate Academic Regulations* section of this catalog.

Project

A project is a substantial exercise that demonstrates the ability of a master's student to carry out independently and successfully a professional activity similar to what may be encountered in the workplace. Although a final oral examination for a project is not required by the Graduate College, the academic unit responsible for a master's program may define procedures for such an examination and require it for all students in the program. The Graduate College does not archive projects and does not require that academic units archive projects. However, it is permissible for an academic unit to adopt local regulations and implement procedures for archiving some or all projects produced in a particular graduate program. This flexibility acknowledges the great diversity of projects across disciplines and the differing views on their archival value.

Registration for Project Credit A master's student who is engaged in project activity during any semester or term, including the semester or term in which the project in final form is assigned a grade, must register for at least one credit of 591 Project, regardless of the number of 591 Project credits already accumulated by the student.

Project Grading All 591 Project credits are graded in-progress (IP) until a final grade of either pass (P) or fail (F) is assigned by the academic unit responsible for the program. The same grade (P or F) is assigned to all 591 credits registered by the student during his or her career in the program.

Portfolio

A portfolio is a substantial collection of selected work that demonstrates the student's efforts, progress, and accomplishments in one or more areas of the curriculum. The portfolio is a culminating activity, although students should begin the process early by discussing with faculty how to plan and organize their portfolio. This is followed by the collection of examples of work throughout their academic careers that demonstrate, for example, knowledge of a subject, mastery of a learning process, publishable scholarship or completion of special projects, themes, and/or creative activity. A portfolio must contain the student's thoughts about the learning process, demonstrate the grasp of key information and/or exhibit the development of crucial skills. These reflections can take the form of learning logs, reflective journals, and other forms, as appropriate. The credit(s) awarded should reflect the work required to assemble the portfolio.

Registration for Portfolio Credit The number of credits awarded for 592 Portfolio is determined by the graduate program. The student registers for portfolio credit during the last semester when the portfolio, in final form, is expected to achieve full approval and be assigned a grade. In the event that full approval is delayed, the student may receive a grade of incomplete (I). The incomplete must be resolved the following semester or term.

Portfolio Grading All 592 Portfolio credits are graded either pass (P) or fail (F).

Capstone Course

A capstone course is a graduate course that serves as a final comprehensive assessment of the knowledge and skills of a master's student in the major field of study. As a *culminating activity*, a capstone course is taken in the last semester of a master's program and may be a grade-point course or pass-fail course. A capstone course may be designated with a program-specific graduate course number or may use university-wide graduate course 600 Assessment with Capstone Course as the required modifier.

A student who receives a grade of F in a capstone course may not graduate in that semester or term, regardless of whether the student is otherwise qualified to do so. A failed capstone course may be repeated (see *Repetition of Courses* in the *Graduate Academic Regulations* section). If repeating a capstone course, a student must enroll for at least one graduate credit.

Series of Practicums

A practicum is a supervised practical application of previously studied theory that takes place in a professional, clinical, or field setting. The *culminating activity* for a master's program may be a series of practicums completed primarily during the later phases of the program. A practicum may be designated with a program-specific graduate course number or may use university-wide graduate course 590 Practicum/Internship.

Performance Recital or Lecture Recital

A performance recital or lecture recital coupled with one or more examinations may be used as a *culminating activity* for a master's program in the performing arts. A performance recital or lecture

recital is designated with a program-specific graduate course number and must be a pass-fail course.

Comprehensive Examination

A comprehensive examination assesses depth and breadth of knowledge. When used as the *culminating activity* or as part of the culminating activity for a master's program, a comprehensive examination cannot be attempted until the student has completed all core courses required by the program and has been admitted to candidacy. The academic unit responsible for the program may impose additional conditions to be met by the student prior to the examination, such as completion of all courses required for the degree.

Considerable autonomy is granted to the academic unit in the design, administration, and evaluation of a comprehensive examination. However, the results can only be reported as pass or fail, the examination must be administered in time to process and submit the grade when grade reports are due, and the student must be registered for at least one credit during the semester or term of the comprehensive examination. In many programs the registration requirement is automatically satisfied because the academic unit requires the student to register for one credit of 600 Assessment (with Comprehensive Examination as the optional modifier). If the comprehensive examination is not represented by a 600 Assessment course number, then the student may fulfill the registration requirement by enrolling in any course for academic credit and the results of the student's comprehensive examination must be reported to the Graduate College with a *Report of Culminating Activity* form.

Final Oral Examination

The Graduate College requires a final oral examination (also called a defense) for a master's student only if the student is completing a thesis as a *culminating activity*. The examination must consist of three sequential parts in which the student presents and defends the thesis research: 1) a public presentation, 2) a public question and answer session, and 3) a private question and answer session with a committee of experts known as the *defense committee*. The final oral examination should occur no later than the date specified in the academic calendar; this date is set to allow time for final revision and processing of the thesis so that a student who passes the final oral examination has a reasonable chance for graduation in the same semester or session. Announcement of the public presentation to the university community is required and should precede the presentation by at least two weeks.

The defense committee for a master's student is identical to the student's supervisory committee, and the chair of the supervisory committee is responsible for conducting all three parts of the final oral examination according to procedures established by the Graduate College. However, at the request of the student or academic unit, a graduate faculty representative (GFR) may be appointed to the defense committee as a nonvoting member by the Dean of the Graduate College. The GFR must be a member of the Graduate Faculty and a member of an academic unit not represented on the supervisory committee. The GFR conducts all three parts of the final oral examination according to procedures established by the Graduate College.

The result of a final oral examination for a master's student can only be reported as pass or fail. The determination of pass or fail is by a vote of the voting members of the defense committee with a simple majority determining the outcome unless the academic unit responsible for the program requires a unanimous vote for pass. If a tie vote occurs, then the student is considered to have failed the final oral examination. A result of pass is immediately documented by the signatures of the voting members of the defense committee on the *Defense Committee Approval* form that is to be bound with the paper copies of the thesis. A result of fail is immediately documented on a *Report of Failure of a Final Oral Examination* form that is submitted to the Graduate College by either the chair of the supervisory committee or the GFR.

Failure of a Comprehensive Examination or Final Oral Examination

A comprehensive examination or final oral examination for a master's student that is failed on the first attempt can be repeated once but only if a repeat attempt is requested by the student and approved by the academic unit responsible for the program. The student request must be in writing to the head of the academic unit and must be made within five working days after the student is notified of his or her failure. If a repeat attempt is not requested by the student, or if a request is made by the student but not approved by the academic unit, then the student is dismissed from the program by the Graduate College. If the student's request is approved by the academic unit, then the repeat attempt must occur within twelve months after the first attempt. If the student does not repeat the examination within twelve months after the first attempt, or if the student fails the repeat attempt, then the student is dismissed from the program by the Graduate College. Any extension of the twelve-month limit on the repeat attempt must be approved by the academic unit and by the Dean of the Graduate College.

Second Master's Degree

Students who have earned a master's degree from Boise State University may earn a second master's degree in another discipline under the following guidelines:

1. The student must meet all requirements prescribed for the second degree.
2. Requirements for the second degree that have already been met in the program for the first degree may be counted toward the second degree at the discretion of the supervisory committee or advisor and with the approval of the Dean of the Graduate College. Credit for culminating activities is automatically excluded from application to both degrees. At least two thirds of the credit applied to the second degree must represent new course work (i.e., courses not already applied to the first degree).
3. All requirements for the second degree (including courses completed at another college or university) must be started and completed within a single continuous interval of no more than seven years.
4. A student cannot be admitted to a second master's degree program until all requirements for the first master's degree have been completed.

Handbook of Procedures

An academic unit may compile a handbook of procedures for a master's program for which the unit has responsibility. A copy may be obtained through the graduate program coordinator for the program.

Regulations for Doctor of Philosophy Programs

Description

The Doctor of Philosophy (Ph.D.) degree is the most advanced research degree awarded by the University. It requires demonstration of expertise in a major field of study, a working understanding of one or more related disciplines, independent research leading to a significant and original contribution to knowledge, and (in some cases) proficiency in one or more foreign languages. Recipients of the Ph.D. degree generally engage in careers of active scholarship in a wide variety of employment settings.

Degree Requirements

Supervisory Committee A student admitted to a Ph.D. program must be under the guidance of a supervisory committee appointed soon after admission: see *Guidance of Graduate Students* in the *Graduate Academic Regulations* section of this catalog.

Credit Requirements The program of study leading to a Ph.D. degree must satisfy the following minimum credit requirements: 66 total credits consisting of 18 credits in 693 Dissertation plus 48 credits in other courses. Of the 48 credits in other courses, 24 credits must be earned in graduate courses in the major field of study with 12 such credits in 600-level courses. Any deviation of a Ph.D. curriculum from these stipulations must be approved by the Graduate Council. All credit applied to meet the credit requirements must be graduate academic credit except that a limited number of credits earned in undergraduate courses outside the major are allowed (see *Restrictions on Certain Courses* below). In all cases, at least two thirds of the total credit requirement must be earned at Boise State University since admission to the program and all credit must be approved for application by the supervisory committee.

Residency A Ph.D. student must spend at least one academic year in full-time, on-campus graduate study at Boise State University.

Comprehensive Examination A Ph.D. student must pass a comprehensive examination that assesses 1) depth and breadth of knowledge in the major field of study and in one or more related disciplines and 2) readiness to undertake dissertation research; see *Comprehensive Examination* below.

Language Proficiency A Ph.D. student must be proficient in English and may be required to demonstrate a prescribed level of ability in one or more other languages. If language ability beyond proficiency in English is required, the means of verification are defined by the academic unit responsible for the program.

Dissertation A Ph.D. student must prepare a dissertation written in clear and effective English that embodies the results of his or her original scholarly research (see *Dissertation* below).

Final Oral Examination A Ph.D. student must pass a final oral examination that rigorously and deeply probes the ability of the candidate to describe and defend all aspects of the dissertation research in both a public setting and in a private conference with experts (see *Final Oral Examination* below).

Duration of Graduate Study The minimum duration of study for the Ph.D. degree is three academic years beyond the baccalaureate degree. All requirements for a Ph.D. degree (including courses completed at another college or university) must be started and completed within a single continuous interval of no more than ten years.

Restrictions on Certain Courses

All Ph.D. programs must be consistent with the following restrictions. An academic unit responsible for a particular Ph.D. program may impose more stringent restrictions for that program.

Undergraduate Courses An undergraduate course may be applied to meet the credit requirements of a Ph.D. degree subject to the following restrictions:

1. The course must be an upper-division course and must be in a discipline outside the major field of study of the Ph.D. program.
2. A grade of B or better must be earned in the course.
3. The course cannot represent effort for an undergraduate thesis, internship, practicum, independent study or research, conference or workshop, experiential learning, study abroad, seminar, or colloquium.

Previously Applied Courses In general, any course applied to a previously earned degree or certificate of any type at any institution cannot be applied to meet the credit requirements of a Ph.D. degree. The only exception is a course applied to a master's degree previously earned at a regionally accredited U.S. institution or non-U.S. institution approved by the Graduate College and the Registrar. Each course allowed under this exception is subject to the following additional restrictions:

1. A grade of B or better must have been earned in the course.
2. The course cannot represent effort for a graduate culminating activity or for experiential learning.

Courses allowed under this exception are limited by the fundamental requirement that at least two thirds of the total credit requirement for the Ph.D. degree must be earned at Boise State University since admission to the program.

Aggregate Restriction No more than one third of the total credit requirement exclusive of culminating activity credit (693 Dissertation) can be met by the sum of credits earned in undergraduate courses, pass-fail courses, and university-wide courses numbered 590, 594-598, and 696-697 (or equivalent courses that may appear as transfer credits).

Comprehensive Examination

The comprehensive examination for a Ph.D. student should be administered when the student is in regular status and has completed a significant number of course credits applicable to the degree requirements. Although the comprehensive examination is required for a Ph.D. student by the Graduate College, considerable autonomy is granted to the academic unit in its design, administration, and evaluation. The result of the comprehensive examination can only be pass or fail, and is reported to the Graduate College using either a *Report of Doctoral Comprehensive Examination* form, or a grade of pass (P) or fail (F) assigned to 600 Assessment with Comprehensive Examination as the optional modifier.

Dissertation

Original research carried out by a student at the doctoral level is documented by a dissertation. A dissertation is characterized by a clearly stated proposition or hypothesis that is investigated using analysis and synthesis of data or other scholarly evidence. The dissertation must demonstrate mastery of the relevant literature and the ability of the student to independently and successfully address a substantial intellectual problem with concepts and methods that are accepted in the major field of study.

Dissertation Proposal A dissertation proposal must be approved in advance of the dissertation research by the supervisory committee. The dissertation proposal presents the background, objectives, scope, methods and time lines of the dissertation research. Substantive work done by the student prior to the appointment of the supervisory committee or work represented by credit other than 693 Dissertation (such as 596 Independent Study and 696 Directed Research) is not acceptable for the dissertation under any conditions.

Registration for Dissertation Credit A Ph.D. student must register for at least one credit of 693 Dissertation in any semester or session in which the student is engaged in dissertation activity, including the semester or session of the final oral examination, regardless of the number of 693 Dissertation credits already accumulated by the student. The student cannot undertake the final oral examination unless enough 693 Dissertation credit has been accumulated to meet the degree requirement for such credit. The student is not required to register for 693 Dissertation credit in the semester or session subsequent to the semester or session in which the Graduate College receives the *Final Reading Approval* pages signed by the chair of the supervisory committee (or designee). The student must submit the signed *Final Reading Approval* pages to the Graduate College no later than the last day of the final exam week of the semester or session. Failure to meet this deadline will require the student to register for at least one credit of 693 Dissertation in the subsequent semester or session.

Dissertation Grading All 693 Dissertation credits are graded in-progress (IP) until a final grade of either pass (P) or fail (F) is assigned by the academic unit responsible for the program. A grade of pass (P) is assigned to all 693 credits if the final oral examination is passed, and a grade of fail (F) is assigned to all 693 credits if the student fails the final oral examination. See *Final Oral Examination* and *Failure of the Comprehensive Examination or Final Oral Examination* below.

Final Dissertation Approvals and Procedures It is important for the student to keep in mind that a grade of pass (P) in all 693 credits is not sufficient to satisfy the dissertation requirement for a Ph.D. degree and does not clear a student for graduation. A dissertation that has been successfully defended by the student at the final oral examination must also be granted final reading approval by the major advisor (chair of the supervisory committee), and must pass the format review of the Graduate College. The dissertation in final form must also be approved by the Dean of the Graduate College, and because the dissertation is expected to be available to other scholars and to the general public, the entire dissertation must be archived and made publicly accessible. Please refer to *Theses and Dissertations* in the *Graduate Academic Regulations* section of this catalog.

Final Oral Examination

The final oral examination for a Ph.D. student (also called a defense) must consist of three sequential parts in which the student presents and defends the dissertation research: 1) a public presentation, 2) a public question and answer session, and 3) a private question and answer session with a committee of experts known as the *defense committee*. The final oral examination should occur no later than the date specified in the academic calendar; this date is set to allow time for final revision and processing of the dissertation so that a student who passes the final oral examination has a reasonable chance for graduation in the same semester or session. Announcement of the public presentation to the university community is required and should precede the presentation by at least two weeks.

The defense committee must include the entire supervisory committee plus a nonvoting graduate faculty representative (GFR) appointed by the Dean of the Graduate College. The GFR must be a member of the Graduate Faculty and a member of an academic unit not represented on the supervisory committee. The GFR conducts all three parts of the final oral examination according to procedures established by the Graduate College.

At the request of the academic unit responsible for the Ph.D. program, the Dean of the Graduate College may appoint an additional voting member to the defense committee known as the *external examiner*. The external examiner may be from the University or from outside the University but cannot be a member of the academic unit that is responsible for the Ph.D. program.

The result of a final oral examination for a Ph.D. student can only be reported as pass or fail. The determination of pass or fail is by a vote of the voting members of the defense committee with a simple majority determining the outcome unless the academic unit responsible for the program requires a unanimous vote for pass. If a tie vote occurs, then the student is considered to have failed the final oral examination. A result of pass is immediately documented by the

signatures of the voting members of the defense committee on the *Defense Committee Approval* form that is to be bound with the paper copies of the thesis. A result of fail is immediately documented on a *Report of Failure of a Final Oral Examination* form that is submitted to the Graduate College by the GFR.

Failure of the Comprehensive Examination or Final Oral Examination

A comprehensive examination or final oral examination for a Ph.D. student that is failed on the first attempt can be repeated once but only if a repeat attempt is requested by the student and approved by the academic unit responsible for the program. The student request must be in writing to the head of the academic unit and must be made within five working days after the student is notified of his or her failure. If a repeat attempt is not requested by the student, or if a request is made by the student but not approved by the academic unit, then the student is dismissed from the program by the Graduate College. If the student's request is approved by the academic unit, then the repeat attempt must occur within twelve months after the first attempt. If the student does not repeat the examination within twelve months after the first attempt, or if the student fails the repeat attempt, then the student is dismissed from the program by the Graduate College. Any extension of the twelve-month limit on the repeat attempt must be approved by the academic unit and by the Dean of the Graduate College.

Handbook of Procedures

An academic unit may compile a handbook of procedures for a doctoral program for which the unit has responsibility. A copy may be obtained through the graduate program coordinator for the program.

Registration Policies and Procedures

Shortly after you have been admitted to a graduate program, your department will assign a member of the faculty to serve as your academic advisor. Nondegree-seeking students may seek advising in Graduate Admission and Degree Services or the department from which you intend to take courses. Prior to registration, all students are encouraged to seek advising.

Registration is held at the beginning of each semester and at the beginning of summer sessions. **All registration is completed online by selecting the BroncoWeb link on the Boise State University home page at www.boisestate.edu.** You may register from your home or office, or at an on-campus computer lab. The BroncoWeb Help Center, Administration Building, Room 110, (208) 426-4249, assists those students not familiar with the web process. You must have your user name and password when you register.

Registration for Continuing, New and Readmitted Students

Graduate students are initially assigned a registration appointment for fall and spring semesters.

- Fall 2011 appointments begin April 4, 2011
- Spring 2012 appointments begin October 24, 2011

Open registration begins after the fee-payment deadline for preregistered students and runs through the 10th day of the fall and spring semesters. Appointments are not assigned for summer sessions.

- Summer 2012 open registration begins February 21, 2012.

Registration Cancellation

If you wish to adjust your schedule, see instructions for adding and dropping classes. If you wish to withdraw from classes after the first day of instruction, see the instructions for *Complete Withdrawal from Boise State University*.

Academic Calendar

Boise State University's Academic Calendar, which lists all of the registration deadline dates for the current catalog year, can be found in the front of this catalog. The calendar specifies the policy deadlines, by semester and session, for the following: registration, adding and dropping classes, and withdrawals. You are strongly encouraged to familiarize yourself with this calendar, especially the *Academic Calendar Deadlines by Session* table, as you will be held accountable for meeting these deadlines. Online at http://registrar.boisestate.edu/academic-calendar.shtml.

Academic and Fee Policy

Once you register for classes, you will remain registered and are responsible for the fees and grades assessed for these classes unless you cancel your registration, even if you do not pay for the courses or do not plan to attend. If you decide not to attend any classes, you must drop all your classes online (including classes and workshops that begin later in the semester) by going through BroncoWeb at http://broncoweb.boisestate.edu not later than 10th day of classes.

If you do not cancel your registration or pay your fees by the fee payment deadline, you will remain registered, you will be charged course fees, and you will be assessed a $50 late penalty.

Note: Cancellation of courses may have financial aid impacts. You may be required to repay all, or a portion of, any financial aid awarded to you.

Credit Courses and Audit Courses

During registration, if space in the class is available, you may register for a course under audit status with the understanding that you have a seat in the class, but you will receive neither credit for the course nor a final grade. The instructor may not require you to attend class regularly, complete assigned work, take tests, or otherwise participate in the class. On the other hand, the instructor can require of you everything that is required of students who take the course for credit. Therefore, before registering under audit status, discuss your plans with the instructor.

In any of the classes in which you are enrolled, you can change the course status from credit to audit or from audit to credit before the appropriate session deadline. Please note that if you change the status from credit to audit, or from audit to credit, your instructor still defines the requirements for successfully completing the class. If you fail to meet those requirements under **audit** course status, your instructor may give you a final grade of 'UAU' (for **Unsatisfactory Audit**). To change your registration status, access the Website at www.boisestate.edu and select BroncoWeb to complete the process. Please be aware that audited courses do not count towards financial aid eligibility.

Adding Classes

Before the semester begins, you may add classes to your schedule on BroncoWeb (http://broncoweb.boisestate.edu/), if there is space available in the class, and you meet the prerequisite. If a class is full, a student can request to be placed on a waitlist to enroll in the class if a seat becomes available. You may continue to add classes after the first day of classroom instruction, up until the deadline appropriate

to the session. However, after the fifth day of the semester's regular session you must obtain the instructor's approval to add the class. Instructors may refuse to grant permission if the class is full (see the *Academic Calendar Deadlines by Session* table in the front of this catalog for the exact deadline). They may also refuse permission if your late entry would prevent you from benefiting fully from the class or would prevent other students in the class from doing so. (If you are registering for or adding **graduate** 590 Practicum/Internship, 592 Portfolio, or 595 Reading and Conference, or **undergraduate** 496 Independent Study, challenge, or credit for prior learning, you may do so through the end of the sixth week of the semester.)

For more information about adding classes, see the *Boise State University Registration Guide*, http://registrar.boisestate.edu/registration-guide.shtml, or call the BroncoWeb Help Center at (208) 426-4980.

Dropping Classes

You may drop regular session classes on BroncoWeb (http://broncoweb.boisestate.edu/) from your schedule through the sixth week of the semester. See the *Academic Calendar Deadlines by Session* table in this catalog for the exact deadline. If you drop a regular session class before the 10th day of the semester, the class will not appear on your transcript. However, if you drop a class after the 10th day, your transcript will show a grade of W (for *withdrawal*) for that class. Grades of W will not be used in GPA calculation. Workshops, short courses, five-week, and eight-week block courses have different deadline dates. (See the *Academic Calendar Deadlines by Session* table in this catalog for the exact drop deadline.)

Drop Fee—As a student you are expected to finalize your class schedule at the beginning of each term. Dropping unwanted courses as the semester begins allows other students the opportunity to add the courses they need. You will have the opportunity to attend the first class session to make a decision to stay enrolled or drop before a $10 drop fee per course is charged. The drop fee deadlines vary by session. See *Academic Calendar Deadlines by Session* table for the deadlines.

For more information about dropping classes, see the *Boise State University Registration Guide*, http://registrar.boisestate.edu/registration-guide.shtml, or call the BroncoWeb Help Center at (208) 426-4980.

Workshops

Adding a Workshop You must register for a workshop prior to the first day of the workshop. To enroll in a workshop that is full and hasn't started yet, you must submit a *BroncoWeb Override Form*, with the instructor's signature, to the BroncoWeb Help Center, Administration Building, Room 110, no later than the day before the workshop starts.

Rules for Dropping a Workshop

- A workshop will not appear on your transcript, if you drop the workshop prior to the day it starts.
- You will receive a grade of W on your transcript, if you drop on the day the workshop begins, or any day up until the last day before the workshop ends.
- You will receive a grade of F on your transcript, if you attempt to drop a workshop on the last day it is being held or later.

Appeals to Drop a Class After the Deadline

If you need to drop a class in a current semester after the last drop deadline for the session, but before the session ends, you must submit an appeal by using the *Requesting Approval for Dropping A Class After the Deadline* form, to the dean (or associate dean) of the college of the course. Read the instructions, fill out the form, submit a written letter, and provide documentation of extenuating circumstances that would justify an exemption to the drop deadline policy. If the dean or associate dean signs the form, then you can proceed to request approval and signature from the instructor. The instructor may still deny the appeal. Once you receive all required signatures, you must submit the form to the Registrar's Office, Administration Building Room 110, for processing. The form is located online at http://registrar.boisestate.edu/forms/students.shtml.

Withdrawals

Boise State limits the number of withdrawals (W's) a student may receive while enrolled at Boise State University. If you are a graduate student and wish to pursue a second degree at the associate, advanced technical certificate, or technical certificate level, you may receive up to five W's. If you are pursuing a second baccalaureate degree, you may receive up to ten W's, including any received while in an associate degree, advanced technical certificate, or technical certificate program. (W's received before fall semester 1995 are not counted toward the total allowed.) Once you have exhausted the allowed number of W's, you may receive only an A+ through F in any succeeding course. There is no limit on the number of W's received if you are a graduate student enrolled in a graduate degree program.

Exceptions: Withdrawals from corequisite courses that must be taken together (primarily lecture/lab courses) will count as one course for permitted withdrawal purposes. Withdrawals received as a result of a complete withdrawal from the university will not count toward the allowed total.

Note: The university has placed limits on the number of times you may enroll in a course. See *Repetition of Courses* in the *Graduate Academic Regulations* section of this catalog for more information.

Note: If you intend to drop a class in which you have been issued university property, such as lab equipment, uniforms, or instruments, you must return the property before dropping the class. If you fail to do so, the Registrar's Office will place a hold on your official record, and reinstate you in the class.

Faculty-Initiated Withdrawal

An instructor can withdraw a student from a course if any of the following conditions are present:

- The student fails to attend one of the first two meetings of a class that meets more than once each week.
- The student fails to attend the first meeting of a class that meets once each week.
- The student has not satisfied the entrance requirements for the class.

To withdraw a student for **failing to attend one of the first two meetings of a class that meets more than once each week or the first meeting of a class that meets once each week**, the instructor submits a *Faculty Initiated Withdrawal* form to the Registrar's Office. Students withdrawn from a course for failing to attend these specified class meetings may re-enroll in the course with the instructor's permission through the 10th day of the semester. (See the *Academic Calendar Deadlines by Session* table in this catalog for the exact deadline of the various sessions.)

To withdraw a student for **failing to satisfy entrance requirements**, the instructor or the graduate program coordinator must notify the student of the impending withdrawal and then request the withdrawal through the Registrar's Office. All faculty-initiated withdrawals will be removed from the student's record and will not appear on the student's transcript.

Students should not expect that an instructor will withdraw them for nonattendance. The primary responsibility for course withdrawal rests with the student.

Complete Withdrawal from Boise State University

If you wish to leave the University in **GOOD STANDING** (drop all courses) you must drop all your classes on BroncoWeb **(**http://broncoweb.boisestate.edu/). See the *Academic Calendar Deadlines by Session* table in the front of this catalog for specific deadlines for the various sessions. If the complete withdrawal for regular session is made after the 10th day of classes and you have not paid your fees, you are still responsible for the entire amount of fees incurred plus a $40.00 administrative processing fee.

If you do not cancel your registration, completely withdraw prior to the end of the sixth week of the semester, or fail to complete the course requirements by deadlines discussed previously, you will be awarded a final grade of F. Complete withdrawal after the published deadline will only be granted by special appeal and because of extraordinary circumstances. See the Registrar's Office.

For information on refunds of tuition and fees following a complete withdrawal, see *Tuition and Fees*. **For important information concerning withdrawals for students receiving financial aid**, see *Change in Enrollment Status* in *Financial Aid for Graduate Students*.

Administrative Withdrawal from Boise State University

An administrative withdrawal is the process by which Boise State University formally withdraws a student from the university, usually without the student's consent or cooperation. In performing its function as an institution of higher learning, Boise State may administratively withdraw any student who interferes with the university's ability to perform that function. In addition, students may be administratively withdrawn for a variety of other reasons, including the following:

- failure to meet academic performance requirements
- falsifying or omitting required information on a graduate admissions application or other university record or document
- failure to submit all required graduate admissions materials within two semesters
- failure to pay deferred fee payments, library fines, overdue loans, housing accounts, or other charges
- failure to respond to an official summons issued by the university
- exhibiting behavior that constitutes a clear and present danger to themselves or to others

To initiate an administrative withdrawal, see *Boise State University Policy Manual*, BSU Policy 4185, http://www.boisestate.edu/policy/policy_docs/4185_AdminWithdrawalPolicy.pdf.

Questions About These Policies?

Contact the Registrar's Office, Administration Building, Room 110, (208) 426-4249.

Grades

Boise State University's Grading System

Boise State University uses a 4.0 grading scale. Table 3 lists the letter grades that instructors use to document their evaluation of your work and to document your academic status in the class. In addition, Table 3 defines the meaning of each letter grade and specifies the number of quality points that correspond to each grade. Quality points are used to determine your grade-point average (GPA). The procedure for calculating your GPA is described below, in *How to Calculate Your Grade-Point Average (GPA)*.

How to Calculate Your Grade-Point Average (GPA)

For each student, Boise State University calculates and documents three types of grade-point average (GPA):

- cumulative GPA
- semester (term) GPA
- Boise State University GPA

Each of the three types of GPA is calculated with the same formula: total quality points you have earned divided by the total number of GPA units you have attempted, as shown in Figure 1.

$$\frac{\text{Total Quality Points Earned}}{\text{GPA Units Attempted}} = \text{GPA}$$

Figure 1. Formula for Calculating Grade Point Average (GPA)

In calculating your *cumulative* GPA, Boise State University uses courses you have taken at the university in your current "career" and all courses you have transferred from other post-secondary institutions—but only if you received a final letter grade (A+ through F) in those transferred courses. During any semester you can be enrolled in **one** of two possible careers — undergraduate or graduate.

In calculating *semester GPA*, the formula uses only the quality points earned and GPA units attempted that semester. For *Boise State University GPA*, the formula uses only quality points earned and GPA units attempted at Boise State University in your current career.

All GPA calculations exclude credits for:

- pass/fail courses in which you received a final grade of P
  (note: a grade of F will impact your GPA)
- courses that you registered for but later dropped from your schedule, even though the course may appear on your transcript with a final grade of W or CW
- courses you took under audit status (AUD or UAU)
- courses in which you received the grade of I, for *incomplete*; or IP, for *in-progress;* (until the I or IP is changed to a letter grade)

Table 3
Letter Grades

Letter Grade	Meaning	Quality Points per Credit Hour	Used to Calculate GPA?
A+	Distinguished work	4	Yes
A	Distinguished work	4	Yes
A-	Distinguished work	3.7	Yes
B+	Superior work	3.3	Yes
B	Superior work	3	Yes
B-	Superior work	2.7	Yes
C+	Average work	2.3	Yes
C	Average work	2	Yes
C-	Average work	1.7	Yes
D+	Below-average work	1.3	Yes
D	Below-average work	1	Yes
D-	Below-average work	0.7	Yes
F	Failure	0	Yes
P	Pass: satisfactory work equivalent to C or higher; credits earned	0	No
I	Incomplete (see "Incompletes" in this chapter)	0 (until changed to a letter grade)	No
W	Student withdrew from the course	0	No
AUD	Course was taken under audit status	0	No
UAU	Unsatisfactory Audit: did not meet requirements set by instructor	0	No
IP	In-Progress; used for dissertation, project, and thesis work in progress*	0 (until changed to a letter grade)	No
CW	Student completely withdrew from all classes that semester	0	No

***Note: if a student voluntarily leaves a graduate program in good standing, any IP grades accumulated will be changed to a grade of W.**

Incompletes

Instructors can enter a grade of I—for *incomplete*—if both of the following conditions are present:

- Your work has been satisfactory up to the last three weeks of the semester.
- Extenuating circumstances make it impossible for you to complete the course before the end of the semester.

In order to receive an incomplete in a **graduate** course, you and your instructor must agree to a contract stipulating the work you must do and the time in which it must be completed for you to receive a grade in the class. The terms of this contract are viewable on BroncoWeb under Your Student Center To Do List. By the end of this specified time, the instructor must submit a grade.

If no grade other than incomplete has been assigned one year after the original incomplete, the grade of F will automatically be assigned. The grade of F may not be changed without the approval of the University Academic Appeals Committee.

You may not remove the incomplete from your transcript by re-enrolling in the class during another semester. A grade of incomplete is excluded from GPA calculations until you receive a final grade in the course.

- Courses repeated prior to Fall 1995 use a grade replacement policy. Only the most recent grade was used in calculating the cumulative GPA.
- Courses repeated Fall 1995 through Summer 2001 used a grade averaging policy. Courses repeated will be averaged, using both grades in the calculation of the GPA.
- Beginning Fall 2001 and on, courses repeated will use a grade replacement policy. Only the most recent grade will be used in calculation of the cumulative GPA.

Questions About These Policies?

Contact the Registrar's Office, Administration Building, Room 110, (208) 426-4249.

Tuition and Fees

In general, the costs of attending Boise State University arise from tuition, institutional fees, and special fees (such as fees for private music lessons or laboratory classes). Your actual costs depend on how many classes you take, the type of classes you take, and your status as a resident or nonresident student. In addition to these fees, you may also have to pay such additional charges as workshop fees or materials charges, depending on the type of classes you take. You may pay with cash, check, Visa, MasterCard, or Discover.

This chapter defines the current tuition and fees for attending Boise State University and provides other information about tuition and fees, including information on deadlines, deferred payment, the senior-citizen rate, and insurance coverage for full-time students. Also included in this chapter are some of the more commonly asked questions about Idaho residency requirements.

Deadlines for Paying Tuition, Fees, and Other Charges

You are expected to pay all tuition, fees, and other charges by the deadline specified in the current academic calendar. If you register after the deadline, you will be expected to pay all tuition, fees, and other charges when you register.

Access your student account on BroncoWeb to find out deadlines for paying tuition, fees, and other changes. **Boise State does not mail out paper statements.** Login to http://broncoweb.boisestate.edu. Once you are in, select: Students Center, Finances. Please contact the Payment and Disbursement Office, Administration Building, Room 211 or call (208) 426-1212 for specific fee information. Other financial information is available on the Student Financials website at www.boisestate.edu/finad/sfs/.

Fee Payment Plan

Information regarding fee payment plans may be obtained in Payments and Disbursements, Administration Building, Room 211, (208) 426-1212 or online at www.boisestate.edu/finad/sfs/.

How Boise State University Calculates Your Tuition and Fees

When you apply for admission to Boise State University, you pay a one-time, nonrefundable fee for processing your application. To calculate your other tuition and other fees, Boise State University uses a milestone of nine credits per semester. Once you register for nine or more credits, you are required to pay the full tuition and fees shown in Table 4 below.

Table 4
Full-time Graduate Fees, Per Semester
(9 credits or more)

Tuition and Fees	Resident	Nonresident
Tuition	$1,862.05	$7,602.05
Institutional Fees*	$1,415.95	$1,415.95
Total (for up to 18 credits)	$3,278.00	$8,478.00
Overload Fee**	$239.00 per credit hour	$239.00 per credit hour

*Does not includes per semester Student Health Insurance Plan (SHIP) premium that may be waived with proof of other insurance.
**An overload fee is imposed if you register for more than 18 credits. Each credit over 18 costs the per credit hour cost.

In determining whether you have reached the total of 9 credits per semester, Boise State counts all credit hours on your registration form, including credit hours under audit status, credit hours for courses you are repeating, and credit hours for workshops. In short, nearly every combination of any type of credit hour counts toward the 9-credit total. Please note, also, that developmental courses (such as ENGL 90 Developmental Writing or MATH 25 Elementary Algebra) count as 3 credits each toward the 9-credit total, even though you earn no credits by taking the course.

NOTE: Tuition, fees, and other charges are subject to change at any time by the Idaho State Board of Education, acting as the Board of Trustees for Boise State University.

Other Fees and Charges

If you enroll for fewer than nine credits, your fees are calculated according to the schedule shown in the following Table 5. Among the fees listed in Tables 5 and 6 are an application processing fee, music fees, special fees, and an overload fee. You pay the application processing fee once when you first apply for admission to Boise State. You pay the music fee if you register for private music lessons, and you pay the overload fee whenever you enroll for more than 18 credits in a single semester.

Music fees are refundable, if you drop the class within the first 5 days of classroom instruction (see *Refund Policy* below). **Application fees are nonrefundable.**

Table 5
Part-time Graduate Fees, Per Semester or Session
(less than 9 credits)

Semester or Session	Resident per credit	Nonresident per credit
Summer 2011	$292.00	$292.00
Fall 2011 and Spring 2012	$294.00	$386.00*
Summer 2012	$304.00	$304.00

*Includes $92.00 nonresident per credit tuition fee.

Table 6 Fees for Private Music Lessons	
2 Credits	4 Credits
$150	$300

If you are a music major enrolled for 9 or more credits these music fees may be waived. To be eligible to receive the waiver, you must be taking the class in order to satisfy a requirement for private performance study in a degree program. You must also be concurrently enrolled, for credit, in a major ensemble and in a concert class. You must receive a grade of C or higher in the ensemble and a grade of P (for *Pass*) in the concert class. For more information about this policy, and to apply for the waiver, contact the music department.

Senior Citizen Rate

If space in a course is available, Idaho residents who are at least 60 years old may register for the course and pay $5 per credit hour, a $20 registration fee (per semester), and any special fees (such as for private music lessons or laboratory fees). To register at the senior citizen rate, first apply for admission, then request the form *Idaho Senior Citizen's Fee Reduction* from the Payment and Disbursement Center, Administration Building, Room 211, Boise State University, 1910 University Drive, Boise, ID 83725. Fill it out according to the instructions. When you pay your registration charges, you will need to show the cashier your driver's license, birth certificate, or other proof of your age.

Refund Policy

In general, if you completely withdraw from Boise State University **on or before the 10th day of the semester for regular session classes**, you are eligible to receive a full refund of the money you paid to register (less a $40.00 administrative fee). If you withdraw after the 10th day of classroom instruction, you receive no refund. See the Academic Calendar in this catalog for deadlines of the other sessions. No refunds for private music lessons can be granted after the first five days of classroom instruction.

NOTE: In determining whether you have met the deadline and are therefore eligible for a refund, Boise State University considers only the date on which you officially withdraw—not the date on which you stopped attending class. Also, registering late has no effect on refund deadlines; Boise State University has published deadlines for 100% refund or waiver of fees. These deadlines differ depending upon which session the course is in. Please refer to the *Academic Calendar Deadlines by Session* table in the front of this catalog for specific deadlines for the various sessions. **Failure to drop the course or cancel registration by the published 100% deadline results in assessment of full fees for the course(s).**

All students who completely withdraw from Boise State will be assessed a $40.00 administrative complete withdrawal fee.

Fee Appeals: Students who wish to appeal for a refund or waiver of the course fees they are assessed should contact Account Maintenance, Room 211, Administration Building, (208) 426-2134 or utilize the appeal form located at http://financialaid.boisestate.edu/forms/sappolicy.pdf.

Student Health Insurance Plan (SHIP)

Policy: Idaho State Board of Education Policy III.P.16 requires full-fee paying students attending classes in Idaho to maintain adequate health insurance.

Boise State University students registered for full-fee paying credits are automatically enrolled in the university-sponsored Student Health Insurance Plan (SHIP), with the premium charge added to their tuition and fees billing. Students who provide proof of continuous enrollment in an alternative U.S.-based health insurance plan with comparable benefits are able to waive out of the SHIP coverage. In order to file a health insurance waiver application, alternative health coverage must meet the waiver requirements posted on the SHIP website healthservices.boisestate.edu under Health Insurance and Waiver Requirements. Waivers must be filed by the 10th day of classes every semester.

Part-time students are not eligible for the Student Health Insurance.

You may contact SHIP at (208) 426-2158 or via e-mail at SHIP@boisestate.edu.

SHIP enrollees may purchase coverage for dependents by completing an enrollment form available on the Renaissance website at: www.renstudent.com/boisestate or by contacting Renaissance at their toll-free number, (1-800) 537-1777. The deadline to enroll in SHIP is the 10th day of classes each semester.

Dependent coverage is based on your enrollment status, with premiums paid directly to Renaissance.

NOTE: All students may obtain medical and counseling services at University Health Services, at the Norco Building, 1529 Belmont Street. Please call 426-1459 for additional information.

Idaho Residency Requirements

When you are first admitted to Boise State, the university classifies you as either a resident student or a nonresident student, then uses this classification to determine your tuition and fees. It is the student's responsibility to apply for residency status. This section briefly answers two of the most frequently asked questions about residency requirements. See Table 7 below to determine your residency classification. For further information, please contact the Residency Coordinator, Registrar's Office, Administration Building, Room 110, Telephone: (208) 426-4249.

Questions About Tuition and Fees?

If you have questions about tuition and fees, contact the Account Maintenance Center, Administration Building, Room 209, (208) 426-2134.

Questions About Residency Status?

If you have questions about residency status, contact the Registrar's Office, Administration Building, Room 110, (208) 426-4249.

Table 7
Residential/Nonresidential Classification Information

Procedures to be Observed in Determining Residency for Tuition Purposes Boise State University

The legal residence of a student for fee purposes is determined at the time of initial application for admission to Boise State and remains unchanged in the absence of satisfactory written evidence to the contrary. The burden of proof in requesting reclassification to resident status rests with the individual in providing clear and convincing evidence of residency for tuition purposes as defined by the law. Individuals applying to change a nonresident classification made at the point of application or are requesting consideration for reclassification based upon satisfying state law criteria must follow the procedure outlined below:

1. Contact the Residency Coordinator in the Registrar's Office, Room 110, Administration Building.
2. Complete the *Idaho Residency Determination Worksheet* and return it to the Residency Coordinator with supporting documentation. A form requesting reclassification to resident status may be filed after qualifying criteria have been satisfied but **no later than *10* school days after the opening of the semester for which the change in status is requested.**
3. The Residency Coordinator will determine if the individual meets the criteria for residency and will notify the individual in writing of the decision.
4. The applicant may appeal the decision of the Residency Coordinator in writing to the Residency Appeals Committee. To file an appeal the applicant must specify in writing why they believe they have met the criteria and on what basis they should be given residency. The appeal should be turned in to the Residency Coordinator. The applicant will be notified in writing of the decision of the Residency Appeals Committee.
5. If an applicant contests the determination of the Residency Appeals Committee that the applicant is not a qualified resident, the applicant may petition the State Board of Education for review. The petition must be submitted to the President of Boise State University in writing and must set forth the applicant's reasons for contesting the decision. The President will submit the petition to the Executive Director of the Office of the state Board of Education who will determine whether the Board or the Board's designated representatives will hear the appeal. If the Board decides to hear the appeal, it will set forth the scope of review and notify the applicant of the time, date, and place of the hearing. The decision of the Board is final and binding on all parties concerned. The student must agree to the release of information to the review body and must comply with deadlines established by the institution for requesting an appeal.

Initial Determination of Residency Status

When you apply to the Boise State University, the Admissions Office determines your status as a resident or non-resident for tuition purposes. For questions about your residency status, please contact the Registrar's Office at (208) 426-4249.

Following are the options under which a student may qualify for Idaho residency; at least one of these must be met for consideration:

1. One or more parent(s)/legal guardian(s) of the student is a resident of the state of Idaho and provides at least 50% of the student's financial support. The parent(s)/legal guardian(s) must have maintained a bona fide domicile[1] in the state of Idaho for at least 12 months prior to the semester in which the student is applying for residency.
2. The student receives less than 50% financial support from their parent(s)/legal guardian(s) and has continuously resided[2] in and maintained a bona fide domicile[1] in Idaho primarily for purposes other than education[3] for at least 12 months prior to the semester in which the student is applying for residency.
3. The student graduated from an Idaho high school and immediately following enrolled in an Idaho college or university and has continued to be and presently enrolled in an Idaho college or university.
4. The student is married to an Idaho resident.
5. The student is a member of the Armed Forces[4] stationed in the state of Idaho on military orders.
6. The student is an officer or enlisted member in the Idaho National Guard.
7. One or more of the student's parent(s)/legal guardian(s) is a member of the Armed Forces[4] stationed in the state of Idaho on military orders and provides at least 50% of the student's financial support.
8. The student is separated under honorable conditions from the Armed Forces[4] after at least two years of service and at the time of separation designated the state of Idaho as their intended domicile or indicated Idaho as their home of record of service; and will be entering the Boise State University within one year of the date of separation.
9. The student has been away from the state of Idaho less than 30 months and has not established legal residence elsewhere; and the student continuously resided[2] in Idaho for at least 12 months immediately prior to departure.
10. The student is a member of one of the following Native American tribes: (i) Coeur d'Alene tribe; (ii) Shoshone-Paiute tribes; (iii) Nez Perce tribe; (iv) Shoshone-Bannock tribes; or (v) Kootenai tribe.

[1]**Domicile** means an individual's permanent home; the place where they intend to remain and expect to return to when leaving without establishing a new home elsewhere. See below for information how to establish Idaho domicile.

[2]**Continuously Resided** means physical presence in the state of Idaho for 12 consecutive months without being absent from Idaho no more than a total of 30 days.

[3]**Primarily Educational Purposes** means a student enrolled for more than 8 credit hours in any semester during the past 12 month period.

[4]**Armed Forces** means United States Army, Navy, Air Force, Marine Corps, and Coast Guard; it does not include National Guard from states other than Idaho and other reserve forces.

How does a student establish domicile in Idaho?

The student must be physically present in Idaho primarily for purposes other than education. The student must be domiciled[1] in Idaho for 12 consecutive months and have established one or more of the following criteria prior to the opening day of the semester:

1. Filing an Idaho state income tax return covering a period of at least 12 months before the semester in which the student is applying for residency.
2. Permanent full-time employment in the state of Idaho for a period of at least 12 months before the semester in which the student is applying for residency.
3. The student has owned his or her own living quarters for a period of at least 12 months before the semester in which the student is applying for residency.
4. Establishment of 5 of the following 7 factors, if done at least 12 months before the semester in which the student is applying for residency:
   a. Registration and payment of Idaho taxes or fees on a motor vehicle, motor home, travel trailer, or other item of personal property for which state registration and the payment of a state tax or fee is required;
   b. Registration to vote for state elected officials in Idaho at a general election;
   c. Holding an Idaho driver's license or Idaho state-issued ID card;
   d. Evidence of abandonment of a previous domicile;
   e. Presence of household goods in Idaho;
   f. Establishment of accounts with Idaho financial institutions;
   g. Other similar factors indicating intent to be domiciled in Idaho and the maintenance of such domicile. Factors may include, but are not limited to enrollment of dependent children in Idaho primary or secondary schools, establishment of acceptance of an offer of permanent employment for self in Idaho, or documented need to care for relative in Idaho.

For further detailed information, go to http://registrar.boisestate.edu/33-3717.shtml.

Financial Aid for Graduate Students

Graduate students at Boise State may apply for a wide variety of financial aid, drawn from an equally wide variety of sources. You should investigate any financial aid that seems appropriate to your circumstances, beginning with financial aid available from your department or your graduate-degree program.

Graduate Assistantships

Most departments award teaching or research assistantships that include a stipend and a waiver of fees. In addition, non-resident tuition is waived for any non-resident student who receives an assistantship award. You may obtain an application for an assistantship on the Internet at www.boisestate.edu/gradcoll/0004.html, from the department in which you are applying, or from the Graduate College, B-117. For additional information, please see BSU Policy 7170 at http://www.boisestate.edu/policy/policy_docs/7170_graduateassistantships.pdf.

Teaching and research assistants are expected to provide 15 to 20 hours of service per week to the university, while scholarship or fellowship recipients have no service requirements.

If you are awarded a Boise State assistantship, you are required to enroll for 9 or more credits in a graduate-degree program, maintain at least a 3.0 grade-point average, and make satisfactory progress toward your degree. If you are enrolled for 5-8 credits in a graduate degree program, you may be eligible for a partial assistantship. Hours of service required would be assigned on a prorated basis as determined by the department. In order to be eligible for reappointment, a graduate or research assistant must receive a satisfactory performance review each semester.

When you accept a graduate teaching assistantship, research assistantship, scholarship, or fellowship, you enter into an agreement with the Graduate College, one that both parties are expected to honor throughout the next year. If you accept an award before April 15, but change your mind about accepting, you may resign your appointment at any time through April 15. Your resignation must be in writing to the chair of the department. After April 15, your acceptance of the award commits you to that appointment.

NOTE: Students who receive an assistantship will be required to pay special course fees for any elective courses taken that are not included in their degree program.

NOTE: Students who withdraw from the university, or who are dismissed from their degree program, forfeit their appointment or award and may be required to repay some or all of the money received from the assistantship to the department.

Deadline for Departmental Aid

You should apply for these awards when you apply for admission to the Graduate College—no later than March 1. Some departments require an application deadline the first week in January. If your application is received by the department after the required deadline, it may not be considered until the following year.

NOTE: Financial aid is available only to students who are admitted to Boise State University in a degree or certificate program which has been approved for financial aid by the U.S. Department of Education.

In addition, you must have an admissions status that meets financial aid eligibility requirements. For example, if you have applied to a graduate degree program but have Pending Department Review admission status, you are not eligible for federal financial aid until your status is changed to either Regular or Provisional.

The information contained in this publication reflects current procedures and rules affecting the delivery of financial aid. The University reserves the right to change, at any time, schedules, rules and regulations. Appropriate notice of such changes is given, whenever possible, before they become effective.

Federal, State, and Institutional Aid

Graduate students can apply for loans and work-study through the federal aid programs. Complete the following steps in order to apply for federal aid:

How to Apply for Financial Aid

1. Complete the Free Application for Federal Student Aid (FAFSA). You must submit the FAFSA each year to be determined eligible for most grant, loan, work-study, or need-based scholarship programs. You may use one of the following methods to apply.
   - Apply using FAFSA on the web (www.fafsa.gov). If you've applied other years, use your PIN number. If you can't remember your PIN number or don't have one, you will be able to get one once you get to that part of the FAFSA application.
   - Apply using renewal FAFSA on the web (also at www.fafsa.gov). The renewal application is simply a FAFSA that contains most of the information you provided last year, if you applied for aid the previous year. Updating the information may be faster for you than filling out a new FAFSA. You will need your PIN to complete the renewal FAFSA on the web.

Tips in completing the FAFSA:

- Boise State University Title IV Code is 001616.
- Boise State University Financial Aid address: 1910 University Drive, Boise, ID 83725-1315.
- Ensure that all information you provide on the application is entered correctly.
- Provide all required signatures; use your PIN number as a signature.
- Do not send tax documents or other materials with your application or signature page.
- If you provided an e-mail address on the FAFSA, you will receive an e-mail with a link to your Student Aid Report (SAR). If you did not provide an e-mail address, then you will receive your SAR through the regular mail. Review your SAR and make any necessary corrections. Please note that marital status cannot be updated if it changes after filing the FAFSA.

2. The Financial Aid and Scholarships Office uses BroncoWeb and BroncoMail to alert students of the need to provide additional materials, if required. Certain applicants are requested to

provide documents to verify information reported on the FAFSA. Examples of requested documents include.

- Verification Form (provided to you by Boise State).
- Tax forms. Submit a signed copy of your federal income tax return. Submit a signed copy of your spouse's federal income tax return if you are married and your spouse filed a separate return. If you do not have a copy of these forms, you may request a transcript of your tax return from the Internal Revenue Service (IRS) by completing Form 4506.
- W-2 forms. Submit a copy of all W-2 forms corresponding to the requested tax returns.
- Loan documents. You may be required to complete an electronic master Promissory Note, or to complete loan entrance counseling requirements.
- Award acceptance. Once processing of your application is complete, your award information will appear on BroncoWeb. You may accept and decline your awards on BroncoWeb.

3. Be aware of the following deadlines:

February 15 Deadline for new graduate students to submit the FAFSA

March 15 Deadline for continuing graduate students to submit the FAFSA. Students who submit the FAFSA by this date are given priority status and are among the first to be considered for Perkins Loans and work-study, based upon availability of funds.

June 1 All documents and other information requested by the Financial Aid Office must be submitted by this date in order to retain priority status.

Students who miss these deadlines may still apply for federal aid. However, processing of applications may not be completed in time for aid to be disbursed prior to the fall fee payment deadline.

In considering applications for financial aid, the Financial Aid Office makes every effort to ensure that resources available through the university are distributed fairly. To determine need, the Financial Aid Office uses a formula mandated by the federal government.

Eligibility Requirements

The following is a summary of the most common criteria affecting student eligibility for financial aid.

- Complete the *Free Application for Federal Student Aid* (FAFSA) and receive an official Expected Family Contribution (EFC).
- Be admitted to Boise State University in a degree program or an eligible certificate program which has been approved for financial aid by the Department of Education. In addition, you must have an admissions status that meets financial aid eligibility requirements. For example, if you have applied to a graduate degree program but have Pending Department Review admission status, you are not eligible for federal financial aid until your status is changed to either Regular or Provisional.
- Enroll for the minimum number of credit hours required by the aid program. For example, to receive a Direct Loan, a graduate student must be enrolled in at least 5 credit hours/ semester that apply directly towards a graduate degree.
- Maintain Satisfactory Academic Progress standards (see detail on following pages).
- Be a U.S. Citizen, permanent resident, or eligible non-citizen. Federal financial aid is not available to international students attending Boise State on a student visa. (International students who encounter financial difficulties are encouraged to seek assistance from the International Student Services Office.)
- If you are male, you must be registered with Selective Service.
- You must not owe a repayment of any federal aid to Boise State, to any other school previously attended, or to the U.S. Department of Education.
- You must not be in default on a federal student loan.
- Submit all materials requested by the Financial Aid Office as soon as possible, but no later than the specified deadlines.
- You must meet all other eligibility requirements. Please contact the Financial Aid Office if you have any questions.

The following section describes a sampling of financial aid programs for which Boise State students may be eligible. Since different types of aid carry different obligations, we recommend that you discuss your options with a customer service representative in the Financial Aid Office.

Sources of Financial Aid

Federal Perkins Loans

Perkins Loans are long-term, low-interest loans awarded to both undergraduate and graduate students who show exceptional financial need. You must repay these loans according to a schedule established by federal law. Typically, you begin repaying your loan nine months after graduation or after your enrollment drops below five credits. Table 8, below, shows estimated repayment schedules for Perkins Loans of various amounts.

Table 8
Federal Perkins Loans Estimated Repayment Schedule
(based on 5% interest rate)

Loan Amount	Number of Payments	Monthly Payment	Total Interest	Total Amount
$ 4,000.00	120	$ 42.43	$1,091.01	$ 5,091.01
$ 8,000.00	120	$ 84.03	$2,182.00	$ 10,182.00
$15,000.00	120	$159.10	$4,091.73	$19,091.73

NOTE: Your actual payment obligations may differ from these examples, which are presented here only to illustrate a typical repayment plan.

William D. Ford Federal Direct Loans

Direct Loans are long-term loans available to undergraduate and graduate students. The interest rates on newly originated Direct Loans for 2011-2012 is 6.8% for subsidized loans, and 6.8 percent. To apply, complete the FAFSA, available at www.fafsa.gov.

Boise State processes Direct Loan applications throughout the year. If you are awarded a Direct Loan, you will need to sign a master promissory note (MPN) if you do not already have an MPN on file. If you have not previously received a Direct Loan, you must complete a loan entrance counseling session (http://financialaid.boisestate.edu/loancounseling.shtml) before you can receive the funds. Also, the Direct Loan commits you to participating in an exit interview when you graduate or withdraw from the university.

There are two types of Direct Loans: subsidized and unsubsidized. Borrowers of unsubsidized loans are responsible for the interest while attending school. The Financial Aid Office will determine which loan you will receive, based on your financial need. You are

expected to begin repaying the loan six months after graduation or six months after you have dropped below five credit hours. Please see the exit counseling information link on the following website for more information: http://financialaid.boisestate.edu/loancounseling.shtml.

Table 9, below, shows estimated repayment schedules for typical Direct Loans. Your actual debt and repayment plan may not match any of these examples; they are presented here merely to show typical loan amounts and repayment plans.

Table 9
Federal Direct Loan Estimated Repayment Schedule
(based on 6.8% interest rate)

Loan Amount	Number of Payments	Monthly Payment	Total Interest	Total Repaid
$ 2,625.00	63	$50.00	$495.00	$3,120.00
$ 5,000.00	120	$57.54	$1,905.00	$6,905.00
$10,000.00	120	$115.08	$3,810.00	$13,810.00
$15,000.00	120	$172.52	$5,714.00	$20,714.00
$25,000.00	120	$287.70	$9,524.00	$34,52400

Federal PLUS Loans

Federal PLUS Loans are now available to graduate students. These loans are available to graduate students who still have an unmet cost of attendance after borrowing through the Direct Loan program, plus any other sources of aid, including. Other differences between the Federal PLUS Loan for Graduate Students and other federal loan programs include:

- Applicants for the Federal PLUS Loan must not have an adverse credit history, as reported by a national credit reporting agency. Applicants with an adverse credit history may still qualify with an eligible co-signer.
- Repayment begins within 60 days of the last disbursement of the award year. There is no six-month grace period. Borrowers may request a deferment while enrolled at least half-time.
- The interest rate is fixed at 7.9 percent.
- Annual loan limits are determined by subtracting all other sources of aid from the estimated cost of attendance figure.
- A separate PLUS Master Promissory Note must be completed and signed.
- Recipients must complete separate PLUS loan counseling requirements.

In addition to the requirements reported above, a student must meet all other eligibility requirements. For more information on the Federal PLUS Loan for Graduate Students, please visit http://financialaid.boisestate.edu/.

Federal Work-Study Program (FWS)

This program gives undergraduate and graduate students the opportunity to earn money to pay for a portion of their educational expenses. FWS aid is awarded to selected undergraduate and graduate students who show financial need. Students receive payment based on hours worked. Payment is typically through direct deposit by the payroll office.

Atwell J. Parry Idaho Work-Study Program

This work-study program operates much like the Federal Work-Study Program, giving undergraduate and graduate students the opportunity to earn money to pay for a portion of their educational expenses. Only Idaho residents are eligible.

Student Employment

Many student employment opportunities are listed on the Internet on BroncoJobs at http://career.boisestate.edu. Passwords are available from the Career Center located in the Academic and Career Services Building, Room 111, by calling (208) 426-1747, or by e-mailing career@boisestate.edu

The GEM Nonresident Tuition Waiver

The GEM Scholarship is a nonresident tuition waiver for new students with a strong academic record who are not residents of the state of Idaho and who are enrolled full-time. Please contact the Graduate College for a list of eligible majors, as the Idaho State Board of Education was revising this waiver at the time this publication went to print.

Students do not need to submit an application as they are automatically considered for the waiver as part of the evaluation process during admission. For additional information, see the Graduate College website (www.boisestate.edu/gradcoll).

The waiver is renewable for an additional year if you complete a minimum of 16 graduate credits in the first two semesters and maintain a 3.00 GPA.

Scholarships

Information about scholarships for graduate students can be found on the web at http://financialaid.boisestate.edu/ scholarships/ or www.boisestate.edu/gradcoll/grsp_notice.doc.

Short-Term Loans

Emergency Short Term Loans are available to students with a minimum grade-point average of 2.00. This loan is available to students who experience a significant financial emergency during the academic year. The maximum amount available is $250 per semester. Only one loan is given per semester. The loan requires a $25 processing fee, and must be repaid within 90 days. Applications are available in the Account Maintenance Office, Room 211, Administration Building.

Financial Aid for the Summer Session

The university has limited financial aid available for the summer session. If you need financial aid for the summer session, review the information on the Financial Aid website at http://financialaid.boisestate.edu. Please note, also, that your FAFSA for the preceding year must be submitted by March 15.

Financial Aid for International Students

As part of the admissions process, international students must demonstrate that they have sufficient funding to attend Boise State University for one academic year. International students are eligible for all scholarships and tuition waivers outlined in this Financial Aid section, except for financial aid provided by the U.S. government or State of Idaho. As international students apply for graduate admission

to Boise State University, the application packet they receive from International Admissions contains a brochure explaining the various financial resources that are available.

Disbursing Funds

In March, the Financial Aid Office begins notifying scholarship recipients. Need-based aid, such as loans and work-study money, is awarded as it is processed. During fall semester, if your registration fees are paid, your remaining funds will be electronically deposited into your bank account or a check will be mailed to you about one week before the start of classes. During spring semester, you can pay your spring registration fees with previously awarded aid. The balance of your aid will be mailed to you or electronically deposited about one week before the start of classes, if your registration fees are paid.

Note: All financial aid funds are distributed from the Account Maintenance Office, Administration Building, Room 211. Please direct questions about your balance funds to that office at (208) 426-2134.

Change in Enrollment Status

Any change in your enrollment status may affect your ability to maintain satisfactory academic progress (see *Satisfactory Academic Progress* below).

Partial withdrawals Adjustments may be made to your financial aid eligibility if enrollment changes after disbursement of aid has occurred. Please be aware that withdrawals will negatively impact your satisfactory academic progress performance.

Complete withdrawals In general, students receive no refund of tuition and fees if they withdraw from the university after the 10th day of classroom instruction. Federal financial aid regulations state that eligibility for aid be recalculated whenever a student withdraws from Boise State University, either officially or unofficially. The recalculation determines the amount of aid a student has "earned," by prorating according to the percent of the term completed before withdrawing. For example, a student who withdraws after completing only 30 percent of the term will have "earned" only 30 percent of aid eligibility. A student who completes more than 60 percent of the term is considered to have "earned" 100 percent of his/her aid eligibility. Examples of these calculations can be found on the web at: http://financialaid.boisestate.edu/forms/CompleteWithdrawalPolicy.pdf.

Once a student officially withdraws, the Financial Aid Office will determine if/what is owed and will provide notification of adjustments to financial aid funding. If you have questions about what will happen when you withdraw, review the information on the web at: http://financialaid.boisestate.edu/forms/CompleteWithdrawalPolicy.pdf. After reviewing that information, if you still have questions, contact the Financial Aid Office.

Unofficial withdrawals Students who unofficially withdraw from the university, or receive a failing grade for all courses within a term, may be asked to verify attendance. Students who cannot demonstrate attendance will be required to immediately repay all financial aid received for that term.

Satisfactory Academic Progress

Students applying for or receiving financial aid must make satisfactory academic progress at the university. These requirements are monitored at the end of each semester, soon after the semester's grades are made official. Your academic progress is considered satisfactory if you:

- maintain a minimum cumulative Boise State GPA consistent with University requirements.
- pass 75% of all credit hours attempted while enrolled as a graduate student at Boise State University.
- complete your degree requirements within the maximum time allowed.

Review the complete satisfactory progress policy at http://financialaid.boisestate.edu/forms/sappolicy.pdf.

Satisfactory Academic Progress Review

The University reviews financial aid files at the end of each term. If you are not making satisfactory academic progress or do not meet the term completion requirements (as defined in the policy on the web and briefly outlined above), you will be ineligible for financial aid until you are once again making satisfactory academic progress.

Appeals

If there were extenuating circumstances impacting your ability to meet the *Satisfactory Academic Progress Standards,* you have the right to file a written appeal for a temporary exemption from this policy. Examples of extenuating circumstances include the death of an immediate family member, illness or injury to the student, or similar circumstances. In filing an appeal, you must document any extenuating circumstances that prevented you from making satisfactory academic progress. Appeal forms may be downloaded from the web at http://financialaid.boisestate.edu/forms/sappolicy.pdf.

Staying Informed

Most official correspondence will be sent to your student email account. Remember to check your BroncoMail at least weekly to determine if additional information is needed. To easily find financial aid updates, look at the *Timely Tips* at http://financialaid.boisestate.edu or click on the Financial Aid Recipients link on BroncoWeb. Information is updated regularly on policy changes or other important information that might affect your financial aid. If you wish to be notified directly when *Timely Tips* are updated, email FAQuest@boisestate.edu, provide your name and student ID number, and indicate "count me in" in the subject line of your email. You can also be a fan of the Boise State Financial Aid Facebook page to receive updates.

Questions About Assistantships?

If you have questions about assistantships, contact the Graduate College, Business Building, Room 117, Telephone (208) 426-3647

Questions About Financial Aid?

If you have questions about financial aid, contact the Financial Aid Office, Administration Building, Room 113, (208) 426-1664 or 800 824-7017 or by e-mail: faquest@boisestate.edu.

University Housing

University Housing offers a variety of living options, including 6 residence halls and 5 apartment complexes located on-campus or within walking distance from campus. This chapter describes the university housing available at Boise State University, provides application and cost information, and describes the assistance Boise State University provides to students seeking off-campus housing.

Fair-Housing Policy

Boise State University is an equal-opportunity institution and offers its living accommodations and makes housing assignments without regard to race, color, national origin, or handicap (as provided for in Title VI and Title IX and Sections 503 and 504 of the Rehabilitation Act of 1973).

Rules and Regulations

Rules and regulations governing university housing are defined generally in this chapter and more specifically in the *Residence Hall & Dining Agreement, Apartment Lease, Student Code of Conduct*, and online at http://housing.boisestate.edu.

Graduate Housing

University Housing has identified specific communities that are conducive to meeting the demands of being a graduate student. All other residential facilities are designed to address the needs of first-year and other undergraduate students.

University Heights and **University Manor** consist of one and two bedroom apartments. Each unit has a wall-unit air conditioning/heating system, stove, and refrigerator. Card-operated laundry facilities are located on-site. Tenants are responsible for the cost of electricity. Water, sewer, trash, and Internet are provided. A portion of the University Manor Complex will be designated as a full-time Graduate Community beginning August 1, 2012.

University Park consists of two and three bedroom apartments. Each unit has a wall-unit air conditioning/heating system, stove, and refrigerator. Card-operated laundry facilities are located on-site. Tenants are responsible for the cost of electricity. Water, sewer, trash, and Internet are provided.

University Square consists of two bedroom apartments. Each unit has central air conditioning/heating, stove, refrigerator, dishwasher, and washer/dryer. Tenants are responsible for the cost of electricity and gas. Water, sewer, trash, basic cable TV, local phone, and Internet are provided.

University Suites are specifically designed for single students. This complex features four bedroom furnished suites, each of which include a living room, shared bathrooms, modern kitchen, dishwasher, and washer/dryer. High-speed Internet, cable TV, phone line, and utilities are provided. Meal plans are optional. Residents must be at least 20 years of age, or have upper-division status, or have prior residence hall experience without conduct issues. If you wish to stay in the suites during Thanksgiving break, Winter break, or Spring break, the cost will be in addition to the charges covered by your *Residence Hall & Dining Agreement* and requires a separate application. Meal service is limited during these times.

University Village consists of two bedroom apartments. Each unit has central air conditioning/heating, stove, refrigerator, and dishwasher. Card-operated laundry facilities are located on-site. Tenants are responsible for the cost of electricity and gas. Water, sewer, trash, and Internet are provided.

Application and Cost Information

University Suites Apply online at http://housing.boisestate.edu. In the application you will be directed to pay a $250 reservation deposit fee through the Touchnet System. New students wishing to cancel their application for housing must do so by June 30 in order to have their deposit refunded minus a $25 administrative fee. The 2011-2012 prices for housing in the residence halls, along with meal plan options, are available by checking http://housing.boisestate.edu or calling (208) 447-1001.

Apartments Apply online at http://housing.boisestate.edu. The application requires a non-refundable $25.00 processing fee which you will be directed to pay within the application through the Touchnet System. Once an apartment offer has been made and accepted, a $225.00 non-refundable reservation fee will need to be paid within 72 hours. The reservation fee will be converted to the security deposit at the lease signing. For more information, contact the Apartments Office at bsuapartments@boisestate.edu or (208) 447-1001.

Note: The application process to live in university housing is a separate process from the one to apply for admission to the University. If you apply for housing, it does not constitute acceptance or approval for admission to the University. Nor does being accepted for admission to the University signify that your application for housing had been accepted and approved.

Housing Preferences

Upon approval of an application for on-campus housing, Boise State University will assign students to designated graduate student spaces whenever possible based on the date of their deposit and availability of spaces at the time of assignment.

Questions About University Housing?

If you have questions about University Housing, contact the University Housing Office, Chaffee Hall, (208) 447-1001 or online at http://housing.boisestate.edu.

Directory of Student Services

Academic

The following services are available to students seeking assistance with academic matters, from improving their writing, reading, and study skills to planning for a career.

Career Center The Career Center provides career planning and employment services to all Boise State students and alumni. These services include career decision making and major exploration, employment assistance (resume and cover letter review, interview training, professional networking and job search advising), and coordination of the University's internship program. The Career Center's web-based career-guidance systems focus on students' interests, skills, and values for making career choices. The Career Center sponsors annual events including the student job fair, fall and spring career fairs, graduate/professional school day, the Job Search Boot Camp. Through BroncoJobs students and alumni can access student employment, internship, and career-employment opportunities listed by businesses, government agencies, not-for-profit agencies, and school districts as well as schedule on-campus interviews with participating employers. Further information is available at http://career.boisestate.edu or by calling (208) 426-1747.

English Language Support Services Free one-on-one ESL tutoring available for English language learners. Flexible hours are negotiable. Call 426-1189 for information. Additional ESL resources can be found at www.boisestate.edu/esl.

Study Skills Resource Center The Study Skills Resource Center, located in the Academic and Career Services building, room 102 provides students with a place to study and improve skills necessary for academic success.

Test Preparation Assisting students to prepare for graduate school is the focus of short courses on the Graduate Records Exam (GRE) and the Graduate Management Admissions Test (GMAT) offered by Boise State University Extended Studies, (208) 426-3861.

University Testing Services (UTS) provides a variety of testing services to Boise State students and the community. Testing related information is provided as well as proctored testing services for students outside the university.

Tests offered include: COMPASS (for placement into math and English courses), CLEP (College Level Equivalency Placement), Residual ACT (only for use at Boise State), Michigan Test (English placement for students whose first language in not English), Modern Language Placement, and the Miller Analogy Test (graduate admission).

For location, testing hours, and appointments, call (208) 426-2762 or go to http://academicsupport.boisestate.edu/testing.shtml. You can also direct testing questions to TestingServices@boisestate.edu.

Writing Center The Writing Center is open to all students at Boise State, a place where you can find support for your writing efforts in any subject, at any stage of your writing process: brainstorming, revising, editing. To schedule a consultation, stop by Liberal Arts, Room 200, or call 426-1298. You may also make an appointment online at www.boisestate.edu/wcenter.

University Health and Recreation Services

University Health and Recreation Services (UHRS) is comprised of two main operational service areas, University Health Services (UHS) and Campus Recreation. Located in adjacent buildings on the southeast end of campus, UHS is located in the Norco building, 1529 Belmont Street (behind the Student Recreation Center).

University Health Services

All Boise State students are eligible to utilize University Health Services, regardless of their health insurance coverage status. For more information see http://healthservices.boisestate.edu.

Counseling Services The primary purpose of Counseling Services is to help students deal more effectively with concerns that impact their pursuit of personal and academic goals. Staffed with psychologists, counselors, social workers, and graduate students, services range from individual counseling and crisis intervention to workshops aimed at enhancing learning at Boise State University. Counseling Services assists students in resolving interpersonal conflicts, test anxiety, stress-related problems, depression, couple's concerns, and social and emotional problems. For fees (if applicable) and appointment information, call (208) 426-1459.

Medical Services Medical care for all students is available on campus at University Health Services. UHS is equipped to address most of the student's outpatient health care needs, and makes referrals to community providers for specialized tests and procedures. Primary clinical care services are student-focused, accessible and affordable. Emphasis is placed upon early screening and prevention, and empowering students with self care knowledge and skills. Costs are covered through a combination of student fees and fee-for-service charges for office visits, laboratory tests, medications, and specialized procedures. Students are financially responsible for any non-covered charges from their health insurance plan and for services received outside of the UHS. The clinic is open Monday through Friday. To make an appointment, call (208) 426-1459. Spring semester students not enrolled in summer school are eligible for summer services at a minimal cost.

Student Health Insurance Plan (SHIP) University Health Services coordinates the university-sponsored SHIP program. SHIP provides supplemental health care coverage for students, seamlessly integrating campus primary care services with community specialty care, emergency services, and hospitalization. SHIP also educates students, focusing on how to effectively access and utilize all health-related services and insurance/financing options.

Insurance Coverage All full-fee-paying students, all intercollegiate athletes, and international students are automatically enrolled in SHIP, with the premium charge added to their tuition and fees billing. Students are insured at home or school, while traveling, and during all vacation periods 24 hours a day for the policy period. Coverage for the fall semester begins on August 14th and ends on January 15th. Spring semester benefits begin on January 15 and continue through August 15th. Student health insurance benefits are available to spouses and dependents. Part-time students are not eligible for SHIP

enrollment. Information regarding alternative coverage for part-time students is available in the SHIP office.

Waiver Policy Students who provide proof of continuous enrollment in an alternative U.S.-based health insurance plan with comparable benefits are able to waive out of their SHIP coverage each semester. U.S.-based health insurance coverage for international students must also include repatriation and medical evacuation. Waivers must be filed for both the fall and spring semesters by the 10th day of classes each semester. Please go to: healthservices.boisestate.edu under Health Insurance (SHIP) and Waiver Requirements to review the comparability requirements. If your alternative health insurance plan meets all of these comparability requirements, please log on to broncoweb.boisestate.edu to submit your SHIP waiver application (**must** be filed online). Log in to your BroncoWeb account, proceed to Student Finances then proceed to Health Insurance Waiver.

Enrollment Policy Students who wish to be enrolled in SHIP need to be enrolled in required credits by the 10th day of classes each semester.

For questions about enrollment or waivers please e-mail SHIP@ boisestate.edu.or call (208) 426-2158 **prior** to the waiver deadline.

Campus Recreation

The Campus Recreation mission is to enrich the University community by providing diverse recreational and leadership opportunities that foster personal growth and lifelong healthy habits. Campus Recreation offers a wide array of opportunities for informal, instructional, and competitive recreation programs. The 105,000 square foot Student Recreation Center (SRC) serves as the hub for university students, faculty, staff, and alumni who want to participate in physical activity. Programs and services include personalized training, competitive and recreational sports, club activities, group exercise, outdoor recreation, cardio and strength workout options. The Student Recreation Center is located at 1515 University Drive (located adjacent to the Student Union). For more information call (208) 426-1131, or go to http://rec.boisestate.edu.

Other Student Services

Listed below are a number of services and programs provided to students, staff, and faculty.

Children's Center The University Children's Center provides care for children eight weeks—five years of age. Operating hours are 7:00 A.M. – 5:30 P.M., five days a week during fall and spring semesters and thirteen weeks of summer session. It is located at the corner of Beacon and Oakland Streets. The Center is licensed through the City of Boise and accredited through NAEYC. Financial assistance is available. For more information and rates, call (208) 426-4404 or visit http://childrenscenter.boisestate.edu/.

Disability Resource Center located in the Administration Building, Room 114, (208) 426-1583. It is responsible for providing support services that enable all students with disabilities to participate in Boise State University's educational programs. The Disability Resource Center provides students, faculty, and staff with information about specific disabilities. Services provided include:

- student advocacy
- screening interviews
- referrals to local diagnosticians and community services
- accommodation letters for instructors
- information about and orientation to the university
- interpreter services
- conversion of print material into accessible formats
- help setting up note taking services
- exam accommodations
- assistive/adaptive technology

For further information: http://drc.boisestate.edu/.

International Students International students at Boise State University receive academic advising and assistance with orientation, immigration regulations, visa issues, and cultural adjustment. Upon arrival in Boise, new international students must attend the international student orientation. For more information see http://international.boisestate.edu/.

Multicultural Student Services promotes cultural diversity and appreciation through campus-wide cultural awareness programs and through the support of Boise State University's ethnic organizations' festivals and events. The Multicultural Student Services also provides a forum for education aimed at helping students learn multicultural skills and perspectives that they need for a successful experience at Boise State University and beyond.

Student Diversity Center Located on the second floor of the Student Union Building, (208) 426-5950, the Student Diversity Center is a place where students can meet in a relaxed, friendly atmosphere.

Student Employment All registered students can search for on-campus (including work-study), off-campus, part-time, summer, temporary, and full-time job opportunities on BroncoJobs, the University's web-based job-listing site, hosted by the Career Center. There is no charge to students for this service. Further information is available at (208) 426-1747 or http://career.boisestate.edu.

Student Rights and Responsibilities Boise State is committed to maintaining a strong, academically honest environment, free from harassing and disruptive behavior. The Office of Student Rights and Responsibilities serves as the central coordinating office for students who violate University student conduct regulations. The office also coordinates the Student Mediation program and processes for assisting students who are at-risk. For further information please call (208) 426-1527 or visit www.boisestate.edu/osrr/.

Veterans Services The Veterans Services Office, located in the Administration Building, Room 111, (208) 426-3744, provides counseling assistance to all of Idaho's Armed Forces Veterans, National Guard members and Reservists, as well as dependents who qualify. Peer counselors assist student veterans and dependents with Veterans Administration educational benefits, individual educational goals, and admission requirements.

Women's Center The Women's Center empowers students to achieve their goals and promotes social change by providing educational outreach, support services, and a safe place. Services include a mentoring program for "non-traditional" or "returning" women students, educational workshops, academic internships, a lending library, a study lounge, supportive referrals, and crisis response and advocacy for student victims of violent crimes. The For a full list of programs and services visit the website at http://womenscenter.boisestate.edu or stop by the Center, located on the second floor of the Student Union Building, (208) 426-4259.

Course Numbering and Terminology; Credit, Semester, and Prerequisite Codes

Course Numbering and Description Key

Each course at Boise State University has a course description that consists of a prefix, course number, title, credit code, semester code, additional information, content description, and list of requisites. These elements of the course description are described below.

1) Course prefix/Subject The prefix indicates the department or academic unit offering the course.

2) Course numbering system Each course offered is assigned a unique number, indicating what type of course it is and what sort of credits may be earned in the course. Courses are numbered as follows:

00 – 99	non-academic credit courses
100 – 299	lower-division undergraduate courses
300 – 499	upper-division undergraduate courses
500 – 699	graduate courses

3) Course title The official title of the course.

4) Credits The unique course number of each course is followed by a sequence of three numbers that indicate the number of classroom hours per week that the course meets, the number of special hours (laboratory, studio, field) per week that the course meets, and the number of credits a student earns by completing the course. The following examples show typical uses of these additional numbers:

(3-0-3)	a 3-hour lecture class carrying 3 credits
(3-4-5)	a 3-hour lecture class with a corresponding 4-hour laboratory class, carrying 5 credits

Note: a 'V' is used to indicate variable credits or hours.

5) Semester code The semester code indicates the semester(s) and/or term in which the course is offered and is expressed using letter codes F for fall semester, S for spring semester, and SU for summer term, with the full sequence of letter codes enclosed in parentheses. A comma or slash between letter codes is used to interpret combinations as illustrated in the following examples:

(F)	fall semester only
(S)	spring semester only
(F,S)	fall and spring semester
(F/S)	fall semester, spring semester, or both
(F,SU)	fall semester and summer session only
(S,SU)	spring semester and summer session only

If the semester code is not indicated, then the course is offered during the fall and spring semesters and summer session (although there may be some exceptions).

6) Additional information Additional information associated with the scheduling of the course such as a notice of alternate year offering may be given in parentheses after the semester code.

7) Requisites The list of requisites specifies any prerequisites and corequisites using the following abbreviations:

PREREQ:	prerequisite (condition to be met before enrollment)
COREQ:	corequisite (condition met before or during enrollment)
PERM/INST:	permission of instructor required to enroll
PERM/CHAIR:	permission of department chair required to enroll
ADM/PROG	student must be admitted to the appropriate graduate program

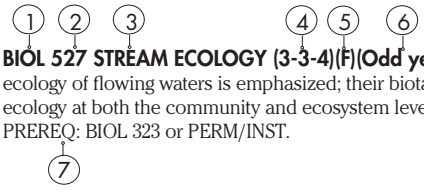
The most common prerequisite is a specific course that must be successfully completed prior to enrollment. The most common corequisite is a laboratory course that must be taken during the same semester or term as a related science course.

Course Terminology

A **graded course** is any course in which the awarded grade is one of the traditional grades (A, B, C, D, or F) and a **pass-fail course** is any course in which the awarded grade is P (pass) or F (fail). A **graduate course** is any course offered with a course number between 500 and 699 inclusive; successful completion of a graduate course earns graduate credit.

Graduate courses are said to be **cross-listed** if they are offered by multiple academic units and have identical titles, credit codes, and content descriptions in each unit (such as COUN 546 and MHLTHSCI 565). **Dual-listed** courses are those offered by an academic unit at both the 400-level and 500-level with identical titles, credit codes, and content descriptions (such as GEOPH 420 and GEOPH 575).

A G-course is an upper-division undergraduate course marked with a G-suffix (such as ENGL 401G); successful completion of a G-course earns graduate credit if the student meets certain requirements (see *G-Courses and Dual-Listed Courses* in the *Graduate Academic Regulations* section).



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 591 Project, 592 Portfolio, 593 Thesis, 600 Assessment, and 693 Dissertation 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. Either graded or pass/fail.

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. Either graded or pass/fail.

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. Either graded or pass/fail.

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.

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. Either graded or pass/fail.

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. Either graded or pass/fail.

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. An independent study cannot be substituted for a course regularly offered at Boise State, nor can independent study credits be used to improve a grade in a course the student has already taken. Either graded or pass/fail.

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. Either graded or pass/fail.

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. Either graded or pass/fail.

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, Thesis Proposal, 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

Interim Dean: Tony Roark
Education Building, Room 601, Mail Stop 1500
Telephone (208) 426-1414
FAX (208) 426-3006

Associate Dean: Vacant
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 doctoral 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)
- chemistry (master of science)
- creative writing (master of fine arts)
- earth science (master of earth science and master of science)
- mathematics (master of science)
- mathematics education (master of science)
- English: literature, rhetoric and composition, teaching English Language Arts (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 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 252, Mail Stop 1510
Telephone (208) 426-1230
FAX (208) 426-1243
e-mail: artdept@boisestate.edu
www.boisestate.edu/art/

Graduate Faculty: Stephanie Bacon, Laurie Blakeslee, Jim Budde, Niharika Dinkar, Caroline Earley, Tom Elder, Chad Erpelding, Jill Fitterer, Francis Fox, John Francis, Kathleen Keys, Ryan Mandell, Larry McNeil, Janice Neri, Craig Peariso, Jonathan Sadler, Dan Scott, Cheryl Shurtleff-Young, Anika Smulovitz, 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 cumulative 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 (see program website for submission instructions):

- A portfolio of at least 20 digital images (see website for required size and format) representing a recent body of work, with an accompanying image ID list, and an artist statement that addresses the work submitted.
- 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

Master of Fine Arts, Visual Arts	
Course Number and Title	Credits
ART 575 Graduate Seminar	3
ART 576 Studio Practices (3-6 credits per semester)	18
ART 577 Graduate Concourse	6
ART 580-588 Selected Topics **AND/OR** ART 596 Independent Study	12
ART 589 Selected Topics Art History or other graduate level art history	9
ART 593 Thesis	6
Electives at the graduate level	6
Total	**60**

Master of Arts in Art Education

Graduate Program Coordinator: Kathleen Keys
PAAW Building, Room 116A, Mail Stop 1510
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 (see program website for submission instructions):

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 digital images (see website for required size and format) of a recent body of work with an accompanying image ID 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.
8. A self-addressed, stamped envelope.

Degree Requirements

Master of Arts in Art Education	
Course Number and Title	Credits
ART 501 The Fine Arts: Analysis and Appreciation in the Educational Program	3
ART 551 Curriculum Development and Assessment in Art Education	3
Education Graduate Core courses	6
ART 591 Project **OR** ART 593 Thesis	6
Electives	15
Total	**33**

Course Offerings

See page 52 for a definition of course numbering and terminology.

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 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-V-V)(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.

SELECTED TOPICS (Variable). To be offered as staff availability permits:

ART 578 ART EDUCATION
ART 579 COMPUTER GRAPHICS
ART 580 DRAWING
ART 581 PAINTING
ART 582 ART METALS
ART 583 SCULPTURE
ART 584 PHOTOGRAPHY
ART 585 CERAMICS
ART 586 PRINTMAKING
ART 587 GRAPHIC DESIGN
ART 588 ILLUSTRATION
ART 589 ART HISTORY

Refer to the *University-wide Graduate Courses* section in this catalog for additional course offerings.

Department of Biological Sciences

Chair: Denise Wingett
Science Building, Room 107, Mail Stop 1515
Telephone (208) 426-3262
FAX (208) 426-1040
http://biology.boisestate.edu/

Graduate Faculty: Jesse Barber, Marc Bechard, James Belthoff, Marie-Anne de Graaff, Alfred Dufty, Kevin Feris, Jennifer Forbey, Greg Hampikian, Julie Heath, Cheryl Jorcyk, Peter Koetsier, James Long, Kristen Mitchell, James Munger, Stephen Novak, Julia Thom Oxford, Ian Robertson, Troy Rohn, Marcelo Serpe, James Smith, Juliette Tinker, Merlin White, Denise Wingett

Adjunct Graduate Faculty: Abdelkrim Alileche, Christopher Ball, Jonathan Bart, Keith Bildstein, William Bourland, Kenneth Brewer, Jay Carlisle, John Clark, Jack Connelly, John Cossel, Matthew Dare, Gary Daughdrill, Susan Earnst, David Eldridge, Kim Fernie, Miguel Ferrer, Richard Fischer, Eric Forsman, Mark Fuller, Matt Germino, Cynthia Keller-Peck, Lloyd Kiff, Cecilia Kinter, Steven Knick, Michael Kochert, Daniel Leavell, Matthias Leu, John Lloyd, Richard Mack, Bill Mattox, David Newcombe, Richard Olson, David Pilliod, Rebecca Pullen, Janet Rachlow, John Rasmussen, Joseph Rausch, Robert Ricklefs, Roger Rosentreter, Randall Ryan, Rex Sallabanks, Lucinda Salo, Rene Sforza, 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 (http://biology.boisestate.edu/). To apply:

1. Send the following to: Graduate Admissions and Degree Services, Boise State University, 1910 University Drive, Boise, ID 83725-1110.
   - A graduate application along with the 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

Graduate Program Coordinator: Ian Robertson
Science Building, Room 226, Mail Stop 1515
Telephone (208) 426-2394
e-mail: iroberts@boisestate.edu

Master of Arts in Biology, Project Option	
Course Number and Title	Credits
BIOL 598 Graduate Seminar **OR** BIOL 561-567 "Advanced Topics in" courses	2
BIOL 579 Research in the Biological Sciences (for two semesters)	2
BIOL 591 Project Students will be expected to develop a written project proposal and give an oral review and discussion of their project upon completion.	6
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.	23
Total	**33**

Master of Arts in Biology, Examination Option	
Course Number and Title	Credits
BIOL 598 Graduate Seminar **OR** BIOL 561-567 "Advanced Topics in" courses	2
BIOL 579 Research in the Biological Sciences (for two semesters)	2
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.	28
BIOL 600 Assessment [Comprehensive Examination] (P/F)	1
Total	**33**

Master of Science in Biology

Graduate Program Coordinator: Ian Robertson
Science Building, Room 226, Mail Stop 1515
Telephone (208) 426-2394
e-mail: iroberts@boisestate.edu

Master of Science in Biology	
Course Number and Title	Credits
BIOL 601 Biometry	4
BIOL 598 Graduate Seminar **OR** BIOL 561-567 "Advanced Topics in" courses	2
BIOL 593 Thesis	6
Electives from course offerings that follow: Electives may include a maximum of six credits of Directed Research, must be approved by the student's thesis committee, and may not include workshop, pass/fail or practicum/internship credits.	18
Total	**30**

Master of Science in Raptor Biology

Graduate Program Coordinator: Ian Robertson
Science Building, Room 226, Mail Stop 1515
Telephone (208) 426-2394
e-mail: iroberts@boisestate.edu

Master of Science in Raptor Biology	
Course Number and Title	Credits
BIOL 601 Biometry BIOL 605 Applied Raptor Biology BIOL 606 Raptor Ecology	4 2 3
BIOL 598 Graduate Seminar **OR** BIOL 561-567 "Advanced Topics in" courses	2
BIOL 593 Thesis	6
Electives from course offerings that follow: Electives may include a maximum of six credits of Directed Research, must be approved by the student's thesis committee, and may not include workshop, pass/fail, or practicum/internship credits.	13
Total	**30**

Course Offerings

See page 52 for a definition of course numbering and terminology.

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

BIOL—Biology

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 evolutionary change, adaptation, speciation, and phylogeny. Genetics recommended. PREREQ: BIOL 323 and BIOL 343 or PERM/INST.

BIOL 509 MOLECULAR ECOLOGY (3-0-3)(F)(Odd years). Theory and methodologies. Use of molecular genetic markers to study ecological phenomena (e.g., mating systems, parentage and kinship, population structure, gene flow, dispersal, natural selection). Emphasis on an hypothesis-testing approach. Appropriateness of particular molecular techniques to specific research questions. PREREQ: BIOL 323 and BIOL 343 or PERM/INST.

BIOL 510 PATHOGENIC BACTERIOLOGY (2-6-4)(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 genetics. 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, neurulation and 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; tropic 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, 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; t-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 (3-3-4)(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)(F)(Even years). Theoretical ecology as applied to birds of prey. Strategies of reproduction, habitat selection, foraging and spacing; theory of competition and predatorprey 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 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.

ZOOL—Zoology

ZOOL 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.

ZOOL 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.

ZOOL 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.

ZOOL 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.

ZOOL 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.

ZOOL 503 (KINES 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.

ZOOL 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: BIOL 301 and BIOL 323.

ZOOL 521 MAMMALOGY (2-3-3)(S)(Even years). The biology of mammals: ecology, life histories, reproduction, classification, identification, distribution, and adaptations. One weekend field trip. PREREQ: BIOL 323 or an upper-division zoology course.

ZOOL 525 AQUATIC ENTOMOLOGY (3-3-4)(F)(Even years). The taxonomy and ecology of the insects most commonly encountered in freshwater environments. Emphasis on identification and biology of individual taxa, aquatic insect community ecology, environmental pollution assessment, and natural resource management. PREREQ: BIOL 323.

ZOOL 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.

ZOOL 615 AVIAN PHYSIOLOGY (3-0-3)(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.

ZOOL 635 BEHAVIORAL ENDOCRINOLOGY (3-0-3)(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.

Refer to the *University-wide Graduate Courses* section in this catalog for additional course offerings.

Department of Chemistry and Biochemistry

Chair: Clifford LeMaster
Science Building, Room 339, Mail Stop 1520
Telephone (208) 426-3000
FAX (208) 426-1311 or (208) 426-3027
e-mail: chemistry@chem.boisestate.edu
http://chemistry.boisestate.edu

Graduate Faculty: Brad Bammel, Eric Brown, Henry Charlier, Ken Cornell, Jeunghoon Lee, Clifford LeMaster, Owen McDougal, Dale Russell, Martin Schimpf, Susan Shadle, Don Warner

Graduate Degree Offered

- Master of Science in Chemistry
- Master of Science in Hydrologic Sciences (See Interdisciplinary Programs)

Master of Science in Chemistry

Graduate Program Director: Ken Cornell
Science Building, Room 339, Mail Stop 1520
Telephone (208) 426-5429
e-mail: kencornell@boisestate.edu

General Information

The Master of Science in Chemistry program provides students with advanced training in modern chemical research methods. The intended audience is students needing further education and research experience prior to seeking a Ph.D. in Chemistry (or another physical science) or for advancement in their current career.

Application and Admission Requirements

An applicant must follow the general application procedures for admission to a graduate program (see Graduate Admission Regulations). The applicant must also provide:

- A letter of application describing his/her background, academic interests, career goals and how our program will help them achieve these goals.
- Two letters of recommendation from academic faculty or recent employers submitted directly to the graduate program coordinator.
- GRE General Test scores.
- TOEFL scores, for a prospective student whose native language is not English. These individuals may be interviewed if applying for a graduate teaching assistantship.
- A written commitment from one or more faculty members in the Department of Chemistry and Biochemistry or a related discipline to be the applicant's thesis advisor if the applicant is admitted to the program.

Once the file for an applicant is complete, it will be evaluated by the Chemistry 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 chemistry, biochemistry or a closely related field involving substantial course work in chemistry. These conditions are necessary for admission to the program but do not guarantee admission.

Degree Requirements

The Master of Science in Chemistry degree requires completion of a minimum of 30 credits, including five lecture courses from at least three of the five chemical subdisciplines (analytical, biochemistry, inorganic, organic and physical) as well as 9 credits of thesis work. All courses must be approved for application to the degree requirements by the supervisory committee working within constraints developed by the Chemistry Graduate Committee. When a student has completed 9 credits of course work and one semester of thesis work (typically at the end of their first year), he/she will meet with their supervisory committee for a thesis proposal examination to assess the student's progress to date and discuss the student's planned thesis work. At the end of the thesis work, the student will write a thesis based on his/her research and orally defend it to their supervisory committee.

Master of Science in Chemistry	
Course Number and Title	Credits
Core Course CHEM 500 Research Methods in Chemistry and Biochemistry....1 One course each from three different subdisciplines of Chemistry....9 CHEM 580-589, CHEM 597 or any dual-listed course cannot be used for the above requirement. CHEM 598 Seminar....4	14
Electives Course Any 500 or 600 level Chemistry or Biochemistry course....3 Any 500 or 600 level Science, Math or Engineering electives approved by the supervisory committee....3	6
Thesis Proposal CHEM 600 Assessment [Thesis Proposal]	1
Culminating Activity CHEM 593 Thesis	9
Total	**30**

Course Offerings

See page 52 for a definition of course numbering and terminology.

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 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 512 INTERMEDIARY 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 432 or PERM/INST.

BIOCHEM 513 ADVANCED ENZYMOLOGY (3-0-3)(S)(Alternate years). A deeper look into 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.

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). The scope and limitations of the more important synthetic reactions are discussed within the framework of multistep organic synthesis. PREREQ: CHEM 309 or PERM/INST.

CHEM 509 INTRODUCTION TO POLYMER 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. Emphasis will be placed on the application of these techniques to the structure/function characterization of chemical and biochemical systems. PREREQ: CHEM 521 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 540 SPECTROMETRIC IDENTIFICATION (3-0-3)(S). Identification of compounds using modern spectrometric techniques. PREREQ: CHEM 309 and CHEM 321.

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 ORGANOMETALLIC 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.

Refer to the *University-wide Graduate Courses* section in this catalog for additional course offerings.

Department of English

Department Chair: Michelle Payne
Associate Chair: Roger Munger
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, Martin Corless-Smith, Heidi Estrem, James E. Fredricksen, Matthew C. Hansen, Samantha Harvey, Thomas Hillard, Cheryl Hindrichs, Janet Holmes, Daryl Jones, Mike Markel, Clyde Moneyhun, Roger Munger, Jacqueline O'Connor, Steven Olsen-Smith, Michelle Payne, Tara Penry, Dora Ramirez-Dhoore, Bruce Robbins, Gail Shuck, Edward Test, Brady Udall, Karen Uehling, Jeffrey Westover, Mitchell Wieland, Jeffrey Wilhelm, Russell Willerton, Linda Marie Zaerr

Adjunct Graduate Faculty: Jodi Chilson, Al Greenberg, Al Heathcock, Clay Morgan, 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
English Annex, Room 202B, Mail Stop 1525
Telephone (208) 426-2413
e-mail: mfacwp@boisestate.edu
http://english.boisestate.edu/mfa/

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. Students can 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 $10,400. 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.

Master of Fine Arts in Creative Writing	
Course Number and Title	Credits
Workshops ENGL 522 Poetry Writing Workshop ..... 3 ENGL 523 Fiction Writing Workshop ..... 3 ENGL 524 Creative Nonfiction Writing Workshop ..... 3 Students are admitted into the program in one genre of concentration. Four workshops must be taken in this declared genre.	12

— *continued* —

Master of Fine Arts in Creative Writing (continued)	
MFA Courses ENGL 502 Teaching Creative Nonfiction, Poetry, and Fiction Writing ..... 3 ENGL 507 Small Press Production ..... 3 ENGL 508 Writing, Editing, and Designing for Professional Advancement ..... 3 ENGL 509 Book Arts ..... 3 ENGL 532 Form and Theory of Poetry ..... 3 ENGL 533 Form and Theory of Fiction ..... 3 ENGL 534 Form and Theory of Creative Nonfiction Writing 3 ENGL 590 Internship ..... (varies) Students must take at least three courses; additional courses may be applied towards English Department Electives.	9
English Department Electives Students must choose 500 level courses from at least two of the following areas: Composition/Rhetoric, Creative Writing, Linguistics, Literature, Technical Communication, or Internship. One 400-level G writing course allowed. ENGL 598 required for Teaching Assistants.	18
Electives Graduate courses, any discipline. May include 400-level G courses.	3
ENGL 593 Thesis	6
Total	**48**

Master of Arts in English

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
http://english.boisestate.edu/eng/ma/

General Information

The M.A. in English program at Boise State University is large enough to provide variety, yet small enough for flexibility in planning a course of study and for a collegial atmosphere. The Department's graduate faculty teach on all levels in addition to pursuing interests in scholarship, writing, editing, publishing, and related activities.

The Master of Arts in English program has two emphases:

1. The original, currently called Master of Arts in English, Literature, has a 15-hour core consisting primarily of literature courses, but also includes 15-21 hours of electives that may be drawn from other areas of the English program as well. It serves students interested in going on for a Ph.D. in literature or interested in another career where reading, writing, and analytical skills are needed;
2. The Master of Arts in English, Rhetoric and Composition is designed for students interested in community college teaching and/or pursuing a doctoral degree in Rhetoric and Composition.

Students should consult with the Director of the M.A. in English to help determine which emphasis meets their career goals.

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-1110, 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.
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
http://english.boisestate.edu/eng/ma/

Degree Requirements

Master of Arts in English, Literature	
Course Number and Title	Credits
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.	
Core Requirements ENGL 500 Research Methods in Literary Studies ..... 3 ENGL 561 Theories of Rhetoric and Composition **OR** ENGL 588 Survey of Critical Theory ..... 3 ENGL 510 Seminar in Major American or English Writer .... 3 *ENGL 530 Studies in a Literary Period..... 6 *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: Studies in Medieval English Literature Studies in Renaissance Literature Studies in Restoration and Eighteenth-Century Literature Studies in English Romanticism Studies in Victorian Literature Studies in Twentieth-Century English Literature Studies in Colonial American Literature Studies in Nineteenth-Century American Literature Studies in Twentieth-Century American Literature Studies in Twentieth-Century Postcolonial Literature in English	15
Electives 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 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 590, ENGL 595, and/or ENGL 596.	15

— continued —

Master of Arts in English, Literature (continued)	
Thesis, Portfolio, or Project Option: students take 3 credits of ENGL 591 Project, ENGL 592 Portfolio or ENGL 593 Thesis in their final semester. With the help of an advisor, the student selects a thesis or project topic or develops material for inclusion in a portfolio and prepares a prospectus before the student's final semester. After completion of the thesis, portfolio, or project, the student must pass an oral defense. **Course work Option**: students take six additional hours of electives as described above, for a total of 21 hours of electives.	3-6
Additional information No credits taken outside the English Department may be applied toward graduation requirements. Only three (3) credits of Thesis, Portfolio, 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
http://english.boisestate.edu/eng/ma/

Degree Requirements

Master of Arts in English, Rhetoric and Composition	
Course Number and Title	Credits
Required Courses ENGL 554 Research Methods in Rhetoric & Composition....3 ENGL 561 Theories of Rhetoric and Composition.....3	6
Rhetoric and Composition Electives Courses to be selected from the following: ENGL 563 The Theory and Teaching of Basic Writing .....3 ENGL 567 Grammar and the Teaching of Writing: Theory and Practice.....3 ENGL 568 The Essay Tradition .....3 ENGL 583 Selected Topics in Rhetoric and Composition ..3 This course may be taken with different focuses for a total of three times. The following are examples of titles that might be offered: Computers and Composition Argument and Academic Writing Rhetoric and Ethics Cultural Studies and Composition Adult Learners and Writing/Literacy Instruction Writing Center Theory and Practice Tutoring in the Writing Classroom Rhetoric, Composition, and New Media Feminism and Composition ENGL 590 Practicum/Internship .....1-3 credits	12
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.	12
Culminating Activity ENGL 591 Project **OR** ENGL 592 Portfolio **OR** ENGL 593 Thesis	3
Total	**33**

Master of Arts in Teaching English Language Arts

Director of 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/englishteaching/english-teaching/master-of-arts-in-teaching-english-language-arts/

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

Master of Arts in Teaching English Language Arts	
Course Number and Title	Credits
Writing/Composing Courses to be selected from the following: ENGL 501 The Teaching of Writing ..... 3 ENGL 502 Teaching Creative Nonfiction, Poetry and Fiction Writing ..... 3 ENGL 561 Theories of Rhetoric and Composition ..... 3 ENGL 563 Teaching Basic Writing ..... 3 ENGL 579 Boise State Writing Project Invitational Institute .. 6 ENGL 582 Selected Topics in Teaching English Language Arts (when topic concerns writing instruction) ..... 3 ENGL 583 Topics in Rhetoric and Composition ..... 3 ENGL 594 Workshop (concerning writing instruction)* ..... (varies)	6-9
Reading/Literature Courses to be selected from the following: ED-LTCY 546 Advanced Children's Literature ..... 3 ED-LTCY 547 Advanced Young Adult Literature ..... 3 ENGL 581 Literature for use in Junior & Senior High Schools ..... 3 ENGL 582 Selected Topics in Teaching English Language Arts (when topics reading/literature instruction) ..... 3 ENGL 594 Workshop (concerning reading/literature instruction)* ..... (varies)	6-9
Language Study/Linguistics Courses to be selected from the following: ED-LTCY 548 Psycholinguistics and Literacy ..... 3 ENGL 505 Linguistics ..... 3 ENGL 567 Grammar and the Teaching of Writing: Theory and Practice ..... 3 ENGL 582 Selected Topics in Teaching English Language Arts (when topic concerns language/grammar instruction) ..... 3 ENGL 583 Topics in Rhetoric and Composition (when the topic concerns second-language writing or the teaching of grammar) ..... 3 ENGL 585 Selected Topics in Linguistics ..... 3 ENGL 594 Workshop (concerning language instruction)* ..... (varies) LING 407G Applied Linguistics in Teaching English as a Second Language 3	6-9
Research Courses to be selected from the following: ENGL 500 Research Methods in Literary Studies ..... 3 ENGL 554 Research Methods in Rhetoric & Composition . 3 ENGL 577, 578 Teacher Research in Literacy I and II ..... 3 ENGL 582 Selected Topics in Teaching English Language Arts (when topic concerns teacher research methods) 3	3
Electives to bring total graduate-level courses to 30 credits. Use courses from English, Literacy, or other approved courses.*	0-9
Culminating Activity ENGL 592 Portfolio	3
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.

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
http://english.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

Course Number and Title	Credits
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.)	
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	27
ENGL 591 Project **OR** ENGL 593 Thesis	3
Electives (no more than 3 credits from outside technical communication)	3
Total	**33**

Master of Arts in Technical Communication Alternative Program 2

Course Number and Title	Credits
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.)	
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 ENGL 592 Portfolio ... 1	28
Electives (no more than 3 credits from outside technical communication)	6
Total	**34**

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
e-mail: mmarkel@boisestate.edu
http://english.boisestate.edu/techcomm/

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

Graduate Certificate in Technical Communication	
Course Number and Title	Credits
Required Courses ENGL 512 Technical Rhetoric and Applications....3 ENGL 513 Technical Editing....3 ENGL 514 Technical Communication Ethics....3	9
Elective Courses Select two of the following: EDTECH 574 Instructional Software Development and Courseware Design....3 ENGL 511 Introductory Seminar in Technical Communication....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 518 Writing Software Documentation....3 ENGL 519 Technical Publications Management....3 ENGL 521 Topics in On-screen Document Production....3 IPT 537 Instructional Design....4 Students who wish to substitute an alternative course for one of the two listed electives may petition the Director of Technical Communication.	6
Total	**15**

Course Offerings

See page 52 for a definition of course numbering and terminology.

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: ADM/PROG or PERM/INST.

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: ADM/PROG 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: ADM/PROG or PERM/INST.

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: ADM/PROG 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. May be 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: ADM/PROG or PERM/INST.

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 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 512 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 philosophy and rhetoric; Kant's categorical imperative; the modern standards of rights, justice, utility, and care; the employee's obligations to the employer, the public, and the environment; and the common ethical issues faced by technical communicators, including plagiarism and copyright violation, the fair use of words and graphics, trade secrets, whistleblowing, and codes of conduct. The course will use the case study method.

ENGL 515 VISUAL RHETORIC AND INFORMATION DESIGN (3-0-3)(F/S). A study and application of the rhetorical elements of design, including color, line, form, images, and type. Students will be introduced to desktop publishing, graphics, and Web-authoring software. Students will apply principles of visual rhetoric in creating print and online technical documents. PREREQ: ENGL 513 or PERM/INST.

ENGL 516 TOPICS IN PRINT DOCUMENT PRODUCTION (3-0-3)(F/S). Study and application of the principles and techniques involved in taking print documents from conception to production. Topics will vary but can include desktop publishing, estimating time and cost, selecting paper and binding, working with pre-press and printing companies, and selecting appropriate distribution systems. The course assumes experience with personal computers and desktop publishing software. This course may be taken twice for credit. PREREQ: ENGL 515 or PERM/INST.

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 512 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: ADM/PROG or PERM/INST.

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 515 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; course must be taken a minimum of four times if this is the degree candidate's genre. PREREQ: ADM/PROG 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; course must be taken a minimum of four times if this is the degree candidate's genre. PREREQ: ADM/PROG 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; course must be taken a minimum of four times if this is the degree candidate's genre. PREREQ: ADM/PROG or PERM/INST.

ENGL 527 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 read, select,

copyedit, and proofread manuscripts in consultation with the editor of Ahsahta 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 530 STUDIES IN A LITERARY PERIOD (3-0-3)(F/S). A study of a selected chronological period of American or British literature with focus on major authors, genres, or topics. Repeatable for credit. PREREQ: ADM/PROG or PERM/INST.

ENGL 532 FORM AND THEORY OF POETRY (3-0-3)(F/S). An intensive study of aspects of craft in poetry. Course will expose students to particular methods, approaches, and techniques in poetry and their aesthetic effects. May be taken twice for credit. PREREQ: ADM/PROG or PERM/INST.

ENGL 533 FORM AND THEORY OF FICTION (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: ADM/PROG or PERM/INST.

ENGL 534 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: ADM/PROG 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: ADM/PROG or PERM/INST.

ENGL 554 INTRODUCTION TO RESEARCH METHODS IN RHETORIC AND COMPOSITION (3-0-3)(F/S). An introduction to research methods in Composition and Rhetoric and English Education, including teacher research, ethnography, and case study. Students will learn to develop research questions and choose appropriate research methods, as well as address ethical issues in conducting person-based research. PREREQ: Admission to program or PERM/INST.

ENGL 561 THEORIES OF RHETORIC AND COMPOSITION (3-0-3)(F/S). A study of the theoretical context of current writing and writing pedagogy. Influential 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: ADM/PROG or PERM/INST.

ENGL 563 THE THEORY AND TEACHING OF BASIC WRITING (3-0-3)(F/S). A study of the theory and practice of teaching basic writing. Surveys the history and politics of basic writing and remediation while focusing on specific instructional strategies, writing assignments, and assessment. Prepares students to teach basic writing at the college level, in learning centers, and in other adult learning settings. PREREQ: ENGL 561 or PERM/INST.

ENGL 564 ISSUES IN SECOND-LANGUAGE WRITING (3-0-3)(S)(Even years). Overview of second-language writing research, theory, and pedagogy, with an emphasis on linguistic and sociocultural issues faced by high school and adult learners of English. Pre-service and in-service teachers will develop effective instructional strategies for working with multilingual students and their writing. PRE/COREQ: ENGL 561 or ENGL 598, or PERM/INST.

ENGL 567 GRAMMAR AND THE TEACHING OF WRITING: THEORY AND PRACTICE (3-0-3)(F/S). A study of the theory and practice of teaching grammar and usage from rhetoric and composition perspectives. The course examines a variety of approaches to instruction in grammar and conventions of discourse communities. Prepares students for teaching writing in secondary schools and two-and four-year colleges, and for further graduate study. PREREQ: ENGL 561, ENGL 598, or PERM/INST.

ENGL 568 THE ESSAY TRADITION (3-0-3)(F/S). An examination of the essay tradition from its origins in Montaigne to its continuation in the writing of modern essayists from a variety of national and ethnic backgrounds. Explores theories of the genre, paying particular attention to the ways the essay has been used to teach writing and thinking. 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: ADM/PROG or PERM/INST.

ENGL 577 TEACHER RESEARCH IN LITERACY I (1-0-1)(F). Introduces K-13 teachers to techniques of classroom research such as ethnography, practitioner action research, reflective practice, and narrative inquiry. The first part of a one-year course. PREREQ: ADM/PROG or PERM/INST.

ENGL 578 TEACHER RESEARCH IN LITERACY II (2-0-2)(S). Applications for K-13 teachers of classroom research techniques learned in ENGL 577. Participants complete a teacher research project. The second part of a one-year course. PREREQ: ENGL 577 or PERM/INST.

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 580 ENGLISH TEACHING: WRITING, LITERATURE, AND LANGUAGE (3-0-3)(F/S). Research, theories, issues, and methods of teaching secondary school English language arts; instructional planning; and integration of composition, literature, and language instruction. COREQ: ED-CIFS 561 and ED-LTCY 544.

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; literacy, 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: ADM/PROG or PERM/INST.

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 program, or PERM/INST.

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: ADM/PROG or PERM/INST.

ENGL 598 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 remedying 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.

Department of Geosciences

Chair: David Wilkins
Environmental Research Building room 1155, Mail Stop 1535
Telephone (208) 426-2390 or 426-1631
FAX (208) 426-4061
http://earth.boisestate.edu

Graduate Faculty: Ludmila Adam, Warren Barrash, Shawn Benner, John Bradford, Alejandro N. Flores, Matthew Kohn, Hans- Peter Marshall, James McNamara, Paul Michaels, C.J. Northrup, John R. Pelton, Jennifer Pierce, Mark Schmitz, Walter S. Snyder, Kasper VanWijk, Craig M. White, David Wilkins

Adjunct Graduate Faculty: Julio Betancourt, Benjamin T. Crosby, Virginia S. Gillerman, Vladimir I. Davydov, Matt Haney, Joel T. Harper, Lee Liberty, Bwalya Malama, Danny Marks, Jim McKean, Paul Olin, Douglas Shinneman, Karen Viskupic

Graduate Degrees Offered

- Doctor of Philosophy in Geophysics
- Doctor of Philosophy in Geosciences
- Master of Earth Science
- Master of Science in Geology
- Master of Science in Geophysics
- Master of Science in Hydrologic Sciences (See Interdisciplinary Programs)
- Graduate Certificate in Geographic Information Analysis

Graduate Program Committee

The Graduate Program Committee of the Department of Geosciences consists of the graduate program coordinators for geophysics, geology, and earth science education, 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.

Graduate College Requirements

The general requirements of the Boise State Graduate College also govern the geophysics, geology, and earth science degree programs.

Doctor of Philosophy in Geophysics

Doctoral Program Coordinator: Kasper van Wijk
Environmental Research Building, Room 3157, 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.

Degree Requirements

Doctor of Philosophy in Geophysics	
Course Number and Title	Credits
GEOPH 501 Properties and Processes in Geophysics I GEOPH 502 Properties and Processes in Geophysics II	4 4
Geophysics elective courses approved by the supervisory committee and by the Coordinator of the geophysics doctoral program	18
Area of emphasis outside of geophysics	12
Additional courses in geophysics and/or area of emphasis	10
GEOPH 693 Dissertation	18
Total	**66**

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
Environmental Research Building room 5155, 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

Doctor of Philosophy in Geosciences	
Course Number and Title	Credits
Geosciences courses (GEOG, GEOPH, or GEOS) approved by the supervisory committee and by the coordinator of the geosciences doctoral program	32
Additional elective courses in geosciences or related fields as approved by the supervisory committee and by the coordinator of the geosciences doctoral program	16
GEOS 600 Assessment [Comprehensive Examination]	1
GEOS 693 Dissertation	18
Total	**67**

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 Earth Science

Graduate Program Coordinator: David Wilkins
Environmental Research Building, Room 1155, Mail Stop 1535
Telephone (208) 426-2390
e-mail: dwilkins@boisestate.edu

General Information

The Master of Earth Science (MESci) is a professional science degree program without a thesis requirement designed for students who are in the workforce or considering a career path where a thesis would not be a requirement. The curriculum in the MESci is built around proven course strengths in our MS Geology, Geophysics, and Hydrologic Sciences programs. The MESci requires the student to select from one of three emphasis areas, with core content in each paralleling those other programs. This provides the MESci student with similar core skills, knowledge base, and focus as in the thesis-based programs, skills which have proved vital to a broad range of fields, including policy, regulation, or management, in the areas of environment, natural resources, and urban planning. A student would fill the remaining program requirements with coursework agreed to by their committee and the department's Graduate Programs Committee (GPC). Without the thesis requirement, students may be able to complete the degree and enter or advance within the workforce more rapidly. The Master of Earth Science is a graduate degree platform that will provide its graduates with a rigorous degree that will enhance their competitive edge in the job marketplace.

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 Earth Science	
Course Number and Title	Credits
The student must complete a minimum of 31 credits, of which 20 or more are required to be at the 500-level.	
Select **one** of the following core clusters:	11-12
Geology Core (4 of the following 6 courses)	
GEOS 523 Advanced Geomorphology	3
GEOS 525 Whole Earth Geochemistry	3
GEOS 541 Plate Tectonics	3
GEOS 560 Volcanology	3
GEOS 607 Paleoclimatology and Paleoceanography	3
GEOS 611 Basin Analysis	3
Hydrologic Science Core	
GEOS 512/CE 512 Hydrology: Flow in Geologic Systems	3
GEOS 516/CE 516/GEOPH 516 Hydrology	3
GEOS 518 Hydrologic Analysis	3
GEOS 526/CE 527 Aqueous Geochemistry	3
Geophysics Core	
GEOPH 501 Properties and Processes in Geophysics I	4
GEOPH 502 Properties and Processes in Geophysics II	4
GEOPH 605 Inversion Theory and Geophysical Applications	3
Elective coursework in geosciences and related fields. Elective coursework must be approved by the student's supervisory committee and the Department's graduate programs committee.	17-18
GEOS 598 Graduate Seminar	1
GEOS 600 Assessment [Comprehensive Examination]	1
Total	**31**

Master of Science in Geology

Graduate Program Coordinator: Mark Schmitz
Environmental Research Building, Room 5155, 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.

Degree Requirements

Master of Science in Geology	
Course Number and Title	Credits
The student must complete a minimum of 30 credits, of which 20 or more are required to be at the 500-level.	
Geology Core (4 of the following 6 courses) GEOS 523 Advanced Geomorphology ..... 3 GEOS 525 Whole Earth Geochemistry ..... 3 GEOS 541 Plate Tectonics ..... 3 GEOS 560 Volcanology ..... 3 GEOS 607 Paleoclimatology and Paleoceanography ..... 3 GEOS 611 Basin Analysis 3	12
GEOS 601 Graduate Orientation Mandatory for the first year on campus for all students	2
GEOS 598 Graduate Seminar Enrollment in Graduate Seminar is required each semester of all graduate students in residence; one credit may be applied towards graduation.	1
GEOS 593 Thesis	6
Additional elective courses as approved by the supervisory committee and by the coordinator of the M.S. 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.

Master of Science in Geophysics

Graduate Program Coordinator: Kasper van Wijk
Environmental Research Building, Room 3157, 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

Master of Science in Geophysics	
Course Number and Title	Credits
Credit Requirements: The Boise State University Master of Science in Geophysics requires 30 semester credits distributed as follows:	
A. GEOPH 501 Properties and Processes in Geophysics I	4
B. GEOPH 502 Properties and Processes in Geophysics II	4
C. GEOPH 601 Graduate Orientation Mandatory for the first year on campus for all students	2
D. Elective courses approved by the supervisory committee and by the Coordinator of the geophysics graduate program. (at least 6 credits must be at the GEOPH 500-level or GEOPH 600-level)	14
E. GEOPH 593 Thesis	6
Total	**30**

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.

Master of Science in Hydrologic Sciences

(See Section on Interdisciplinary Programs)

Graduate Certificate in Geographic Information Analysis

Graduate Program Coordinator: David Wilkins
Environmental Research Building, Room 1155, Mail Stop 1535
Telephone (208) 426-2390
e-mail: dwilkins@boisestate.edu

General Information

This certificate program is interdisciplinary in its application of geospatial technologies towards solving problems with spatial elements, and is open to graduate students of any major where geospatial information technologies and analysis may be applied. The prescribed and elective coursework is designed to meet the demands in industry and research where demonstrable literacy is required in these technologies. Applicants must be seeking a graduate degree for admission to this program.

Certificate Requirements

Graduate Certificate in Geographic Information Analysis	
Course Number and Title	Credits
Core Courses GEOG 560 Introduction to Geographic Information.....3 GEOG 561 Remote Sensing and Image Processing.....3	6
Elective Courses Nine credits in courses that represent a disciplinary or interdisciplinary focus area. Courses must be approved by the graduate program coordinator and cannot include more than 3 undergraduate credits. Examples of focus areas include Landscape Ecology, Watershed Processes, Geologic Hazards, Resource Management and Land Use, Environmental Quality, Crime, and Urban and Regional Planning.	9
Total	**15**

Course Offerings

See page 52 for a definition of course numbering and terminology.

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 analyses used to solve various problems. Lab fee. PREREQ: GEOG 561 or PERM/INST.

GEOG 563 GEOSPATIAL PROJECT (1-6-3)(F/S). For graduate students with extensive previous GIS experience or course work. Students will independently identify a problem, design, implement and complete a project utilizing geospatial techniques and analysis of that problem. This course and the project are intended to supplement thesis or dissertation research. Lab fee. PREREQ: GEOG 562 or PERM/INST.

GEOG 570 (GEOS 570) EARTH SYSTEM SCIENCE AND GLOBAL WARMING (3-0-3)(F/S). Survey of interactions among physical biogeochemical processes involved in climate and climate feed back. Explore in detail scenarios of global warming for the next century and their reliability. May be taken for GEOG or GEOS credit but not both. PREREQ: PERM/INST.

GEOPH—Geophysics

GEOPH 501 PROPERTIES AND PROCESSES IN GEOPHYSICS I (3-2-4)(F). Study of the physical processes that operate within the solid Earth and the subsurface properties that govern those processes. Emphasis on mechanical deformation and seismic and electromagnetic wave propagation. Required core class for all geophysics graduate students. PREREQ: PERM/INST.

GEOPH 502 PROPERTIES AND PROCESSES IN GEOPHYSICS II (3-2-4)(S). Study of the physical processes that operate within the solid Earth and the subsurface properties that govern those processes. Emphasis on thermal processes and the dynamics of fluids. Required core class for all geophysics graduate students. PREREQ: GEOPH 501 and GEOS 412, or PERM/INST.

GEOPH 510 BOREHOLE GEOPHYSICS (2-3-3)(Offered as justified). Principles of geophysical, geological, and hydrological measurements in boreholes with emphasis on applications to hydrogeology and petroleum geology. Geological interpretation and formation evaluation of conventional petroleum industry well logs. Integration of borehole geophysics, seismic reflection data, and geology for water resource studies and petroleum exploration. PREREQ: PERM/INST.

GEOPH 511 INTEGRATED RESERVOIR ANALYSIS (3-1-3)(S). Integration of fundamentals and applications from geology, geophysics, and reservoir engineering to characterize petroleum and geothermal reservoirs. Students will work with real data and computer software to develop a reservoir. PREREQ: MATH 170, GEOPH 201 or GEOS 315, or PERM/INST.

GEOPH 513 HYDROGEOPHYSICS (2-2-3)(S)(odd years). Application of geophysical methods to problems in groundwater hydrology including in situ estimation of aquifer parameters, evaluation of groundwater resources,

delineation of thermal and chemical pollution of groundwater, and mapping of saltwater intrusion. PREREQ: GEOPH 305, GEOS 512, or PERM/INST.

GEOPH 515 STRATIGRAPHIC INTERPRETATION OF SEISMIC DATA (3-0-3)(S). Seismic sequence and seismic facies analysis, isochronous reflections, seismic stratigraphy of depositional systems, sea level cycles, seismic modeling, hydrocarbon indicators, lithology from velocity and seismic amplitude variation with offset, use of shear waves and vertical seismic profiling. Interpretation project involving seismic modeling. PREREQ: GEOPH 465 or GEOPH 565.

GEOPH 516 (CE 516)(GEOS 516) HYDROLOGY (3-0-3)(F). 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.

GEOPH 517 (GEOS 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 211.

GEOPH 520 GEOPHYSICAL APPLICATIONS OF DIGITAL SIGNAL PROCESSING (2-3-3)(F/S). Review of digital linear system theory. Digital representation of geophysical data. Geophysical applications of convolution, fast-Fourier transform (FFT), correlations, least squares filters, deconvolution, multi-channel, and two-dimensional operations. Emphasis on processing of seismic reflection data, potential field maps, and earthquake seismograms. Computer laboratory exercises. PREREQ: MATH 333.

GEOPH 522 DATA ANALYSIS AND GEOSTATISTICS (3-0-3)(F). Review of basic statistics to cover traditional and recent data analysis techniques, with focus on spatial datasets. Parametric and non-parametric probability density functions, monte-carlo and bootstrap resampling, and principal component analysis. GIS software with focus on using quantitative geostatistical techniques for spatial interpolation and analysis, such as variogram modeling, kriging, and co-kriging. Some experience with programming recommended. PREREQ: MATH 175.

GEOPH 555 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: GEOPH 303, GEOS 101 or PERM/INST.

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

GEOPH 566 SNOW AND ICE PHYSICS (3-0-3)(S)(Even years). Physics of water in its solid form at a wide range of spatial and temporal scales. Micro-scale processes including formation of solid precipitation, deposition, metamorphism, sublimation, melt, transition to firn, and ice deformation. Medium-scale processes including snow redistribution, energy balance, stratigraphy, slope stability, and avalanche dynamics. Large-scale processes including snowmelt, regional avalanche forecasting, glacier/ice sheet hydrology, ice cores, permafrost and sea ice. PREREQ: MATH 175.

GEOPH 567 SNOW SCIENCE FIELD METHODS (0-3-2)(S). Introduction to traditional and cutting-edge methods for measuring snow properties for snow hydrology and avalanche applications. Weekly hands-on measurements in nearby Dry Creek and Reynolds Creek Experimental Watersheds to monitor snow conditions during the winter and spring. PREREQ: PERM/INST.

GEOPH 575 GEOPHYSICAL APPLICATIONS OF DIGITAL SIGNAL PROCESSING (2-2-3)(F/S). Review of digital linear system theory. Digital representation of geophysical data. Geophysical applications of convolution, fast-Fourier transform (FFT), correlations, least squares filters, deconvolution, multi-channel and two-dimensional operations. Emphasis is on processing of seismic reflection data, potential field maps, and earthquake seismograms. Computer laboratory exercises. PREREQ: GEOPH 301 or GEOPH 305, or PERM/INST.

GEOPH 601 (GEOS 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.

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 latter. Review 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 610 GEOPHYSICAL METHODS IN GEOTHECHNICAL ENGINEERING (3-0-3)(F)(Odd years). Application of geophysical methods to earthquake engineering, soil dynamics, and vibrations due to construction. Methods for the geophysical assessment of soil profiles with emphasis on the amplification and propagation of stress waves. Response of soils, foundations, and structures built on or out of soils to waves and vibrations created by earthquakes or heavy construction and pile driving. Estimation of seismic hazards, characterization of strong ground motion, wave propagation, local site effects, and different representations of soil dynamics.

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 CE 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, GEOPH, or GEOS credit, but not for more than one department. PREREQ: CE 623 or GEOPH 623 or GEOS 623 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 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 610 as a related course. Scheduled offering based on student interest. PREREQ: GEOPH 677; GEOS 314, or PERM/INST.

GEOPH 640 ELECTROMAGNETIC AND SEISMIC WAVE PROPAGATION (3-0-3)(S)(Odd years). Derivation of wave equations and solutions in idealized media including layered media. Source effects. Attenuation in earth materials. Numerical computation of wave fields including finite-element and finite-difference methods. Computer laboratory exercises. PRE/COREQ: GEOPH 502 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 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, GEOPH 502, GEOPH 605; or PERM/INST.

GEOPH 667 SOIL AND ROCK PHYSICS (3-1-3)(offered as justified). Fundamentals of rock and soil mechanics, from elastic rock deformation to rock failure. Rock physics concepts integrated into geophysical applications for the understanding of rock types, pore fluids, and pressures acting on the rocks. Lab experiments and/or modeling. PREREQ: PERM/INST.

GEOPH 677 EARTHQUAKE SEISMOLOGY (3-0-3)(F)(Even years). Physics of the earthquake source, with special emphasis on earthquakes at volcanoes, tectonic earthquakes, volcano-tectonic earthquakes, long-period earthquakes, volcanic tremor, seismometry, earthquake location, fault-plane solutions, earthquake source mechanism, interpretation of seismograms, earthquake magnitude, surface waves, waveform modeling, Earth structure, mainshock-aftershock sequences, earthquake swarms, and b-values. PREREQ: MATH 333 or PERM/INST.

GEOPH 693 DISSERTATION

GEOS—Geoscience

GEOS 451G 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 505 INTRODUCTION TO NUMERICAL METHODS FOR THE GEOSCIENCES (1-2-3)(S). Programming and numerical methods using MATLAB. Standards and practices of programming within MATLAB. Survey of numerical methods critical to geoscientists, including root finding, interpolation and extrapolation, linear algebra, numerical integration, solving differential equations, and simulation and random numbers. PREREQ: MATH 175 or equivalent.

GEOS 511 HYDROLOGY: LAND-ATMOSPHERE INTERACTION (3-0-3)(F). Introduction to the hydrologic cycle and connections between the land surface and atmosphere. Atmospheric circulation, global hydrologic budget, atmospheric radiation, meteorology and climatology of rainfall, snow processes, surface energy and moisture balance, turbulent fluxes, and modeling and remote sensing. PREREQ: MATH 175.

GEOS 512 (CE 512) HYDROLOGY: FLOW IN GEOLOGIC SYSTEMS (3-0-3)(S). Introduction to the hydrologic cycle focusing on subsurface water and its relationship to surface water. Physics of flow through porous media, physical properties of aquifer systems, methods to determine aquifer characteristics, groundwater modeling and relationships between groundwater and streamflow. May be taken for CE or GEOS credit, but not both. PREREQ: ENGR 330 or MATH 175.

GEOS 516 (CE 516)(GEOPH 516) HYDROLOGY (3-0-3)(F). 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 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 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, radiogenic 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 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 535 INTRODUCTION TO GEOINFORMATICS (3-0-3)(F/S). Explores theory and practice of digital information systems applied to the geosciences. Databases, GIS, schemas, standards and protocols, and examples. PREREQ: PERM/INST.

GEOS 540 TECTONICS SEMINAR (2-0-2)(F/S). Examination of specific orogenic systems, tectonic environments, and tectonic processes. PREREQ: GEOS 314 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 560 VOLCANOLOGY (3-0-3)(F)(Alternate years). Study of volcanic processes and deposits, with focus on advances in volcanology since 1980 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 biogeochemical processes involved in climate and climate feed back. Explore in detail scenarios of global warming for the next century and their reliability. May be taken for GEOG 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 583 SELECTED TOPICS IN GEOMORPHOLOGY (1-3 credits)(F/S). Selected topics in geomorphology such as environmental geomorphology, soils and geomorphology, and post-fire erosion. May be repeated for credit. PREREQ: PERM/INST.

GEOS 584 SELECTED TOPICS IN TECTONICS (1-3 credits)(S)(Odd years). Exploration of an individual topic chosen from within the discipline of tectonics. Subject of study in a given semester may be based on geography (e.g., evolution of the Cordilleran Orogen) or tectonic process (e.g., continental rifting and extension). May be repeated for credit. PREREQ: PERM/INST.

GEOS 585 SELECTED TOPICS IN ISOTOPE GEOSCIENCE (1-3 credits) (F/S)(Offered as justified). Investigation of selected isotope geoscience methods and applications. Topics vary and may include aspects of stable, cosmogenic, rare gas, and radiogenic isotope geochemistry. May be repeated for credit. PREREQ: PERM/INST.

GEOS 598 GRADUATE SEMINAR (0-1 to 0-3). The preparation and presentation of oral and written reports on topics in earth science and/or science education. Presentation of oral reports may take the form of debate.

Preparation of visual aids and geologic illustrations will be emphasized. PREREQ: Admission to candidacy or PERM/INST.

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 geological 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 620 CONCEPTS AND METHODS OF HYDROLOGIC SIMULATION (2-2-3)(F). Builds understanding about underlying principles of model abstraction, mathematical formulation, and model verification. MATLAB used to create simple models and explore existing models used in research and practice. PREREQ: GEOS 505 or 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 630 (CE 630) VADOSE ZONE HYDROLOGY (3-0-3)(F)(Even years). 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 412, GEOS 412, CE 512, or GEOS 512 or PERM/INST.

GEOS 633 (CE 633) CONTAMINANT HYDROGEOLOGY (3-0-3)(F)(Odd years). 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.

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/S). 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 652 METHODS IN BIOGEOCHEMISTRY (1-V-3)(S). Application of laboratory and field methods to problems in biogeochemistry and aqueous geochemistry inclusive of experimental design, sampling techniques, analytical methods and data analysis. 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 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.)

Refer to the *University-wide Graduate Courses* section in this catalog for additional course offerings.

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, Andres Caicedo, Laurie Cavey, 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.

Master of Science in Mathematics	
Course Number and Title	Credits
Required core graduate mathematics courses: MATH 514 Advanced Calculus ..... 4 MATH 515 Advanced Analysis 3	7
Additional graduate courses and a culminating activity chosen from one of the following possibilities: **Comprehensive Examination** Eight courses totaling at least 23 credits ..... 23 MATH 600 Assessment [Comprehensive Examination] .... 1 **Project** Six courses totaling at least 17 credits ..... 17 MATH 590 Practicum/Internship ..... 3 MATH 591 Project ..... 3 **Thesis** Six courses totaling at least 17 credits ..... 17 MATH 593 Thesis 6	23-24
Total	**30-31**

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.

Master of Science in Mathematics Education

Graduate Program Coordinator: Sharon Walen
Math/Geosciences Building, Room 233, Mail Stop 1555
Telephone (208) 426-4095
e-mail: swalen@boisestate.edu

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 course work and a culminating experience consisting of either a thesis or a project.

Thesis

The thesis option 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. A mixed method research approach includes both a qualitative and a quantitative component and will be required in the thesis. Each student choosing the thesis option must pass a public oral defense of the completed thesis.

Project

The project option requires 30-33 graduate credits comprised of at least 27 course credits and a 3-6 credit project. Each student choosing the project option must give a public oral presentation about the completed project.

Master of Science in Mathematics Education	
Course Number and Title	Credits
Required Mathematics Education Courses MATHED 510 Mathematics Curriculum 7-12 ..... 2 MATHED 511 Survey of Research in Mathematics Education I ..... 2 MATHED 570 Advanced Mathematics Through Technology 3	7
Required Education Courses ED-CIFS 503 Fundamentals of Educational Research 3	3
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.	

— continued —

Master of Science in Mathematics Education (continued)	
Choose one of the following options: **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: MATHED 523 The Teaching of Algebra ..... 2 **OR** MATHED 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.)	6
Free Electives MATHED, Education, or another area (MATH G option permitted)	11
Project or Thesis in MATH or MATHED	3-6
Total	**30-33**
The total number of G credits may be no more than one-third of the total credits.	

Course Offerings

See page 52 for a definition of course numbering and terminology.

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 (3-0-3)(F). Objectives, content, and methods of secondary school mathematics programs. PREREQ: MATH 370 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, semi-groups, 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 CRYPTOLOGY (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 533 ORDINARY DIFFERENTIAL EQUATIONS (3-0-3)(S)(Odd years). Theory of linear and nonlinear ordinary differential equations and their systems, including Dynamical systems theory. Properties of solutions including existence, uniqueness, asymptotic behavior, stability, singularities and boundedness. PREREQ: MATH 333.

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 547 HISTORY OF MATHEMATICS (3-0-3)(F/S/SU). 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 556 LINEAR PROGRAMMING (3-0-3)(SU)(On demand). Linear optimization problems and systems of linear inequalities. Algorithms include simplex method, two-phase method, duality theory, and interior point methods. Programming assignments. PREREQ: MATH 301.

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 361.

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 565 NUMERICAL ANALYSIS I (3-0-3)(F). Approximation of functions, solutions of equations in one variable and of linear systems. Polynomial, cubic spline, and trigonometric interpolation. Optimization. Programming assignments. PREREQ: MATH 301 or MATH 333.

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 (1-3 Variable). To be offered as staff availability permits:

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

Refer to the *University-wide Graduate Courses* section in this catalog for additional course offerings.

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, David Rickels, Laura Rushing-Raynes, Michael Samball, David Saunders, Marcus Wolfe

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. Students engage in critical inquiry in music education through graduate courses related to research, pedagogy, history, and philosophy, as well as graduate courses in music theory and history. 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 Pedagogy Emphasis supports majors in voice, piano, and orchestral strings only.

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 (B.M., B.A., or B.S. 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

Master of Music, Music Education	
Course Number and Title	Credits
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.	
Core Courses MUS 503 Introduction to Music Research ..... 3 MUS 570 New Developments in Music Education ..... 3 MUS 576 History and Philosophy of Music Education 3	9
Music Education Emphasis Area and Electives (courses selected with the approval of the student's Committee) A. 6 credits in the student's area of emphasis: ..... 6 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. B. 3 credits additional approved electives in music 3	9

— continued —

Master of Music, Music Education (continued)	
Other Music Courses (courses selected with the approval of the student's Committee) *Music Theory ..... 3 *Music History ..... 3 Additional credits selected from the following area(s) ..... 6 A. Additional music theory or history course(s) B. Music Ensemble(s) C. Private Music Lessons D. Conducting course(s)	12
Comprehensive Examination A written comprehensive examination in music must be passed 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.	
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.	
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	3-6
Total	**33-36**

*A minimum of one music history OR music theory course must be a course that is NOT a dual- listed or G-listed graduate course.

Master of Music, Performance	
Course Number and Title	Credits
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.	
Core Courses MUS 503 Introduction to Music Research ..... 3 MUS 557 Music Literature of Major Instrument ..... 3 *Music Theory Elective ..... 3 *Music History Elective 3	12
Performance Courses MUS 563, 564 Pedagogy I, II, or additional Music ..... 6 *History and/or Music Theory **MUS 465G, 466G Diction for Singers I, II ..... 4 **OR** Additional Graduate level music elective ..... 3 MUS-PRV 5_4 Private lessons on major instrument ..... 8 (2 semesters minimum: private lessons must be taken each semester of residency)	17-18
Performance Culminating Project MUS-APL 546 Graduate Solo Performance Recital	3

— *continued* —

Master of Music, Performance (continued)	
Performance Comprehensive Review After successful completion of the culminating project, the student's committee will administer a written examination consisting of three questions, one from each committee member. The questions will cover areas of the student's recital or culminating project and course work taken toward the degree. After satisfactory completion of the written examination, the committee will meet with the student for an oral examination.	
Total	**32-33**

*A minimum of one music history OR music theory course must be a course that is NOT a dual-listed or G-listed graduate course.
**Required of all vocal performance majors.

Master of Music, Pedagogy	
Course Number and Title	Credits
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.	
Core Courses MUS 503 Introduction to Music Research ..... 3 MUS 557 Music Literature of Major Instrument ..... 3 *Music Theory Elective ..... 3 *Music History Elective 3	12
Pedagogy Courses MUS 563, 564 Pedagogy I, II ..... 6 *Additional Music History and/or Music Theory ..... 3-6 MUS-PRV 5_2 Private lessons on major instrument ..... 4 (2 semesters minimum: private lessons must be taken each semester of residency)	13-16
Pedagogy Option Culminating Project (A, B, or C) A. MUS-APL 546 Graduate Solo Performance Recital by special permission ..... 3 B. MUS-APL 544 Lecture/Recital ..... 3 C. MUS 593 Thesis 6	3-6
Pedagogy Comprehensive Review After successful completion of the culminating project, the student's committee will administer a written examination consisting of three questions, one from each committee member. The questions will cover areas of the student's recital or culminating project and course work taken toward the degree. After satisfactory completion of the written examination, the committee will meet with the student for an oral examination.	
Total	**31**

*A minimum of one music history OR music theory course must be a course that is NOT a dual-listed or G-listed graduate course..

Course Offerings

See page 52 for a definition of course numbering and terminology.

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 scaler 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-waivable, 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-V-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-V-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 121/321-321G 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.

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-touring 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-V-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, C 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 and writing in 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 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 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 513 THEORY PEDAGOGY (3-0-3)(F)(Odd years). Explores history and philosophy of music theory including notation and aural skills, textbook evaluation, keyboard harmony, acoustics and tuning, and practical pedagogy for public school music. Theory 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 374 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 374 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.

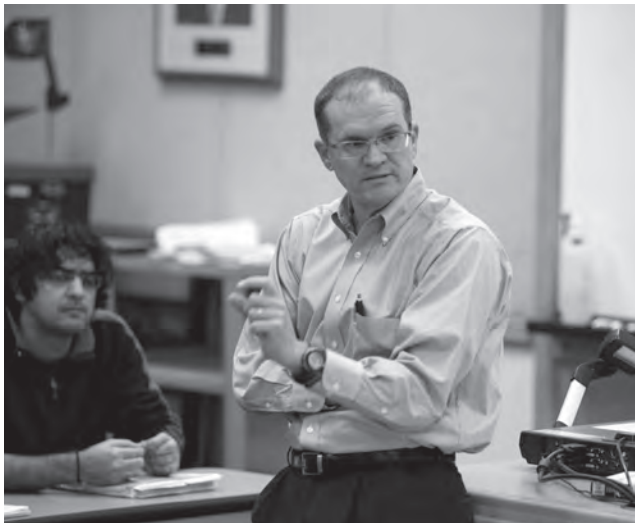
MUS 576 HISTORY AND PHILOSOPHY OF MUSIC EDUCATION (3-0-3)(F/S). Includes both an introduction to the history of music education in the United States, from colonial New England to the present; and alternate views about the philosophy of music, including aesthetic experience, aesthetic education, and the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

Refer to the *University-wide Graduate Courses* section in this catalog for additional course offerings.

College of Business and Economics

Dean: Patrick Shannon
Business Building, Room 307, Mail Stop 1600
Telephone (208) 426-1125
FAX (208) 426-1135
http://cobe.boisestate.edu/graduate

Associate Dean for Graduate Studies and Executive Education:
Kirk Smith
Telephone (208) 426-3116



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 26% 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
Business Building, Room 307, Mail Stop 1600
Telephone (208) 426-3116
FAX (208) 426-1135
http://cobe.boisestate.edu/graduate
e-mail: graduatebusiness@boisestate.edu

College of Business and Economics—Administration
Adjunct Graduate Faculty: Patrick Delana, Brian Greber

Accountancy
Graduate Faculty: Paul Bahnson, Mark Cowan, Denise M. English, Thomas J. English, Troy Hyatt, David R. Koeppen, William C. Lathen, Michael Lee, D. Brian McNatt E. Shawn Novak, Celia Renner

Adjunct Graduate Faculty: Fred Christensen, Frank Ilett Jr.

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, Phillip Fry, Thomas Gattiker, Robert Minch, Patrick Shannon, Sharon Tabor, Regis Terpend

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

Marketing and Finance
Graduate Faculty: L. Dwayne Barney, 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. Research projects, case analysis, discussion groups, guest speakers, and group projects are an integral part of this program.

Several Graduate Assistantships are available and each covers 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 304, Business 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 items:

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 (MS Word and MS Excel) 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, or high-tech marketing, and can expand beyond business to such areas as conflict management, engineering, health policy, or public administration.

Master of Business Administration	
Course Number and Title	Credits
Business Essentials Courses Students may elect to either take the MBA business essentials courses or take an exam to waive out of any/all of those courses. A score of 80% is required on each exam 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. MBA 512 Business Statistics .....3 MBA 514 Economic Theory and Analysis.....3 MBA 522 Accounting and Financial Analysis .....3 MBA 527 Creation & Distribution of Goods and Services ..3	12

— *continued* —

Master of Business Administration (continued)	
Advanced Courses: MBA 531 Strategic Perspectives....1 MBA 532 Accounting for Decision Making and Control....3 MBA 533 Advanced Operations Management....3 MBA 534 Information Technology for Managers....3 MBA 535 Legal Issues in Business....3 MBA 536 Global Economic & Business Analysis....3 MBA 537 Managing People in Organizations....2 MBA 538 Organizational Issues....2 MBA 539 Advanced Marketing Management....3 MBA 545 Advanced Financial Management....3 MBA 546 Strategic Management....2	28
Electives: ECON 560 Economics of Public Policy....3 MBA 561 Marketing High-Technology Products....3 MBA 563 Customer Behavior....3 MBA 564 Internet Marketing Strategy....3 MBA 566 Customer Relationship Management....3 MBA 574 Financial Modeling....3 MBA 580 Selected Topics - Accounting....3 MBA 581 Selected Topics - Information Systems....3 MBA 582 Selected Topics - Economics....3 MBA 583 Selected Topics - Finance....3 MBA 584 Selected Topics - Operations/Production....3 MBA 585 Selected Topics - Management....3 MBA 586 Selected Topics - Marketing....3 MBA 587 Selected Topics - International Business....3 MBA 590 Internship....3 MBA 596 Independent Study....1-3 MGMT 541 Human Resource Management....3 Two undergraduate G courses may be taken for graduate credit if cleared by the Graduate Program Director.	9
Total	**37-49**
Students are encouraged to meet with the appropriate Program Coordinator to help select electives to support an area of specialization.	

Course Offerings

See page 52 for a definition of course numbering and terminology.

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 major forces transforming business: enabling creativity and innovation, industry life cycle and evaluation. MBA students should take MBA 531 in their first year of study. PRE/COREQ: MBA 512, MBA 514, MBA 522, and MBA 527.

MBA 532 ACCOUNTING FOR DECISION MAKING AND CONTROL (3-0-3)(F,S). Explains how the accounting concepts of activity-based costing, breakeven, contribution margin, and resource constraints along with others are used to manage costs and other aspects of a business to create profits. MBA students should take MBA 532 in their first semester of advanced course work. PREREQ: MBA 522 or equivalent. PRE/COREQ: MBA 531.

MBA 533 ADVANCED OPERATIONS MANAGEMENT (3-0-3)(F). Concepts and issues as it relates to operations management and the relationships between operations and other business functional areas. Topics include forecasting, production planning, materials management, mismatch cost minimization, process flow analysis, dealing with uncertainty, risk pooling strategies, and theory of constraints. PREREQ: MBA 512 and MBA 527 or equivalents.

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.

MBA 535 LEGAL ISSUES IN BUSINESS (3-0-3)(S). Exposes future managers to the major legal issues involved in intellectual property, private and public equity financing, mergers and acquisitions, cyber law, and product liability. Emphasis will be on what managers should know in order to make decisions that will not expose them to legal problems. Note: no specific undergraduate prerequisite knowledge is required, but students are expected to be knowledgeable about the U.S. legal structure. PRE/COREQ: MBA 531.

MBA 536 GLOBAL ECONOMIC AND BUSINESS ANALYSIS (3-0-3)(F). International trade theories, development of world trading system, and cultural considerations in global business. A practicum will be on global market operations and analysis, with a live case where U.S. students work with foreign companies. PREREQ: MBA 514 and MBA 531, or equivalents. PRE/COREQ: MBA 533, MBA 539, and MBA 545.

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, recruitment, selection, performance appraisal and coaching, and compensation and benefits topics are covered in the context of how policies and decisions support and further a company's strategic goals.

MBA 538 ORGANIZATIONAL ISSUES (2-0-2)(F,S). The course is geared towards managers and the application of concepts to experience. Application of behavioral science 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 ethical decision making and reasoning, understanding people, negotiation and conflict, and change management. PRE/COREQ: MBA 531.

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 capitalize upon new product opportunities while concurrently managing existing products. PREREQ: MBA 522, MBA 527, or equivalents, MBA 532. PRE/COREQ: 531.

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). Should be taken in the student's last semester of study. An integration of student's prior course work across functional areas. Focus is on Strategy formulation and implementation, analysis, and organizational design and culture. PREREQ: MBA 532, MBA 533, MBA 535, MBA 539. PRE/COREQ: MBA 545.

MBA 554 EMERGING TOPICS IN INFORMATION TECHNOLOGY (3-0-3) (F/S). 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. PREREQ: MBA 527 or equivalent.

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 512, MBA 522 or PERM/INST.

SELECTED TOPICS (1-3 Variable). Contemporary topics courses offered intermittently.

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

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.

Refer to the *University-wide Graduate Courses* section in this catalog for additional course offerings.

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	
Course Number and Title	Credits
First Year Courses	20
EMBA 511 Business Perspectives	2
EMBA 512 Assessing Business Opportunities	5
EMBA 513 Creating Competitive Advantage I	3
EMBA 514 Creating Competitive Advantage II	3
EMBA 515 Fostering Innovation	4
EMBA 516 Leadership and Teamwork Skills	2
EMBA 517 Issues in Leadership I	1
Second Year Courses	12
EMBA 521 Business in a Global Environment	5
EMBA 522 Rescuing Distressed Business Units	2
EMBA 523 Management of Products and Services	2
EMBA 524 Partnerships, Acquisitions, and Divestitures	2
EMBA 525 Issues in Leadership II	1
Culminating Activity (Second Year)	8
EMBA 591 Project	8
Total	**40**

Course Offerings

See page 52 for a definition of course numbering and terminology.

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 initial 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 methods 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 MANAGEMENT OF PRODUCTS AND SERVICES (V-V-2)(F). Builds broad skill in product management, new product development, branding, qualitative marketing research, pricing, and portfolio analysis. Case-based with particular emphasis on business strategy and marketing 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.

Refer to the *University-wide Graduate Courses* section in this catalog for additional course offerings.

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.

Master of Science in Accountancy

Graduate Studies Director: Kirk Smith
Program Administrator: J. Renee Anchustegui
Business Building, Room 307
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 304, Business Building, Boise State University, 1910 University Drive, Boise, ID 83725-1110. All other materials should be sent to the Business Graduate Studies Office, B307, Business Building, Boise State University, 1910 University Drive, Boise, ID 83725-1600.

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 accountancy in addition to 15 credit hours of course work from the Boise State College of Business undergraduate core. Applicants to the MSA, Taxation emphasis need not have a degree in accountancy, but must have completed the equivalent of ACCT 302, Survey of Federal Income Taxation. A strong accountancy background is necessary for success in the MSA, Taxation program, however, and applicants without a degree in accountancy may be required to complete additional undergraduate coursework in accountancy as a precondition to admission. In addition, applicants without a degree in accountancy seeking professional certification are advised to consult with the appropriate State Board of Accountancy regarding any additional coursework required for certification. 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:
   A. Career goals both short-term and long term. What role does an MSA program, in general, and Boise State's MSA program in particular, play in helping the applicant achieve these goals?
   B. Two or three situations in the past three years where the applicant has taken a leadership role. How do these events demonstrate the applicant's managerial potential?
   C. A brief, candid self evaluation. Include some discussion of the abilities and attributes the applicant believes are their strengths and some discussion of areas where the applicant would like to develop more fully. What does the applicant consider most unique or distinctive about themselves?
7. There is limited space available in the graduate program. Meeting the minimum admission standards does not guarantee acceptance into the program. Final acceptance leading to a Master's degree is based upon the Graduate College's evaluation and acceptance of the applicant.

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

Summer, Fall entry ..... March 1
Spring entry ..... October 1

Degree Requirements

Master of Science in Accountancy	
Course Number and Title	Credits
The MSA degree requires a minimum of 30 hours of study.	
Accountancy/Taxation Courses Select From: ACCT 502 Advanced Tax Topics 3 ACCT 505 Advanced Auditing 3 ACCT 510 Advanced Financial Reporting 3 ACCT 512 Financial Reporting Theory 3 ACCT 514 Advanced Managerial Accounting 3 ACCT 516 Financial Analysis and Valuation 3 ACCT 517 Environmental Accounting and Taxation 3 ACCT 518 International Financial Reporting 3 ACCT 520 Tax Research 3 ACCT 525 Partnership Tax Law 3 ACCT 530 Corporate Tax Law I 3 ACCT 533 Corporate Tax Law II 3 ACCT 535 Estate and Gift Taxation 3 ACCT 540 Taxation of Non-Profit Organizations 3 ACCT 545 Real Estate Tax Law 3 ACCT 550 Internal and Information Systems Audit 3 ACCT 560 Income Taxation of Trusts & Estates 3 ACCT 565 Deferred Compensation Taxation 3 ACCT 570 Multi-State Taxation 3 ACCT 575 International Taxation 3 ACCT 579 Personal Financial Planning 3 ACCT 590 Practicum/Internship 3	21
Non-Accountancy Electives Electives chosen from non-accountancy graduate courses.	9
Total	**30**
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).	

Master of Science in Accountancy, Taxation

Graduate Studies Director: Kirk Smith
Program Administrator: J. Renee Anchustegui
Business Building, Room 307, 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). This program 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 section.

Concurrent Master of Science in Accountancy, Taxation and Juris Doctor Program

The College of Business and Economics at Boise State University and the College of Law at the University of Idaho have developed an agreement whereby a student can concurrently pursue the Master of Science in Accountancy, Taxation (MSAT) degree awarded by Boise State University and the Juris Doctor (JD) degree awarded by the University of Idaho. A student who wishes to participate in this concurrent program must be separately admitted to the MSAT and JD programs under the normal admission processes before being considered for admission to the concurrent program. If admitted to the concurrent program, the student must satisfy the requirements of each degree as well as the requirements of the concurrent program. Up to 12 credits earned in University of Idaho law courses (prefix LAW) can be applied to meet the requirements of the MSAT program, and up to 12 credits in Boise State University accountancy courses (prefix ACCT) can be applied to meet the requirements of the JD program; this dual application of credit is governed by additional stipulations specially developed for the concurrent program. Interested students should contact the Associate Dean for Graduate Studies and Executive Education in the College of Business and Economics for additional information.

Degree Requirements

Master of Science in Accountancy, Taxation	
Course Number and Title	Credits
The MSAT degree requires a minimum of 30 hours.	
Taxation Courses Selections From: ACCT 502 Advanced Tax Topics....3 ACCT 514 Advanced Managerial Accounting....3 ACCT 517 Environmental Accounting & Taxation....3 ACCT 518 International Financial Reporting....3 ACCT 520 Tax Research....3 ACCT 525 Partnership Tax Law....3 ACCT 530 Corporate Tax Law I....3 ACCT 533 Corporate Tax Law II....3 ACCT 535 Estate and Gift Taxation....3 ACCT 540 Taxation of Non-Profit Organizations....3 ACCT 545 Real Estate Tax Law....3 ACCT 560 Income Taxation of Trusts & Estates....3 ACCT 565 Deferred Compensation Taxation....3 ACCT 570 Multi-State Taxation....3 ACCT 575 International Taxation....3 ACCT 579 Personal Financial Planning....3 ACCT 590 Practicum/Internship....3	15-21
Accountancy Electives Selections From: ACCT 505 Advanced Auditing....3 ACCT 510 Advanced Financial Reporting....3 ACCT 512 Financial Reporting Theory....3 ACCT 516 Financial Analysis and Valuation....3	0-6
Subtotal Taxation and Accountancy Classes	21
Non-Accountancy Electives: Elective chosen from non-accountancy graduate courses.	9
Total	**30**

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).

For people in the concurrent JD/MSAT program, 9 credits of law can be used toward the 9 credits of non-accountancy electives and 3 transfer credits will replace another taxation course.

Course Offerings

See page 52 for a definition of course numbering and terminology.

ACCT—ACCOUNTANCY

ACCT 502 ADVANCED TAX TOPICS (3-0-3)(F/S). Theory and application of federal income taxation to corporations, partnerships, limited liability companies, S corporations, fiduciaries, and tax-exempt organizations. Specific topics include the tax effects of forming and operating these various entities. The course includes an introduction to estate and gift taxation, the tax consequences of international transactions, and tax research techniques. PREREQ: PERM/INST.

ACCT 505 ADVANCED AUDITING (3-0-3)(F/S). In-depth study of auditing from an external auditor's perspective. Topics include substantive testing, evidence, planning, reporting, documentation, and case studies. The course includes a major project in external auditing.

ACCT 510 ADVANCED FINANCIAL REPORTING (3-0-3)(F/S). Topics include financial reporting for segment and interim reporting, international financial reporting including foreign currency transactions and translation, partnerships, estates and trusts, insolvency and SEC reporting. PREREQ: ACCT 308.

ACCT 512 FINANCIAL REPORTING THEORY (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 527 or PERM/INST.

ACCT 516 FINANCIAL ANALYSIS AND VALUATION (3-0-3)(F/S). Study of the theory and practice of financial statement analysis and business valuation. Methods of fundamental analysis and business valuation are examined and applied in problems, cases and projects.

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/S). 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/S). 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.

Refer to the *University-wide Graduate Courses* section in this catalog for additional course offerings.

College of Education

Dean: Diane Boothe
Education Building, Room 705, Mail Stop 1700
Telephone (208) 426-1611
FAX (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 7 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
- Master of Science in STEM Education
- 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 Kinesiology in Physical Education Pedagogy
- Master of Science in Exercise and Sport Studies
    - Behavioral Studies
    - Biophysical Studies
    - Socio-historical Studies
- Master of Science in Physical Education Pedagogy

Department of Literacy

- Master of Arts in Education, Literacy

Department of Special Education and Early Childhood Studies

- Master of Arts in Early Childhood Studies
- Master of Education in Early Childhood Studies
- Master of Arts in Special Education
- Master of Education in Special Education
- Graduate Certificate in Consulting Teacher Endorsement

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: Claudia Peralta-Nash
Education Building, Room 429, Mail Stop 1725
Telephone (208) 426-4077

Graduate Faculty: Roberto Bahruth, Claudia Peralta-Nash, Elva Reza-Lopez, Arturo Rodriquez

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 and 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

Master of Education in Bilingual Education (Spanish-English)	
Course Number and Title	Credits
ED-CIFS 506 Issues in Education	4
ED-BLESL 500 The Bilingual/ESL Curriculum: Creating, Planning, Implementation ... 3 ED-BLESL 501 Culturally Diverse Learners ... 3 ED-BLESL 502 Methods of Teaching ESL: Maximizing Innovative Pedagogical Approaches to Teaching ESL ... 3 ED-BLESL 503 Applied Theoretical Foundations of Bilingual Education/ESL and Multiculturalism ... 3 ED-BLESL 504 Literacies for Bilingual and English Language Learners ... 3 ED-BLESL 506 Multicultural Literature: Promoting Social Justice ... 3 ED-BLESL 507 Parental Involvement: Building a Community of Bilingual/ESL Learners ... 3 ED-BLESL 508 Advanced Theories of Second Language Acquisition **OR** ED-LTCY 548 Psycholinguistics & Literacy ... 3 ED-BLESL 509 Field Experience in Bilingual Classrooms ... 1 ED-BLESL 511 Contemporary Issues in Bilingual Education 2 ED-BLESL 600 Assessment [Capstone Course] (P/F) ... 1	28
Total	32

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

Master of Education in English as a Second Language	
Course Number and Title	Credits
ED-CIFS 506 Issues in Education	4
ED-BLESL 500 The Bilingual/ESL Curriculum: Creating, Planning, Implementation ... 3 ED-BLESL 501 Culturally Diverse Learners ... 3 ED-BLESL 502 Methods of Teaching ESL: Maximizing Innovative Pedagogical Approaches to Teaching ESL ... 3 ED-BLESL 503 Applied Theoretical Foundations of Bilingual Education/ESL & Multiculturalism ... 3 ED-BLESL 505 Applied Linguistics: Nurturing Communicative Competence ... 3 ED-BLESL 506 Multicultural Literature: Promoting Social Justice ... 3 ED-BLESL 507 Parental Involvement: Building a Community of Bilingual/ESL Learners ... 3 ED-BLESL 508 Advanced Theories of Second Language Acquisition **OR** ED-LTCY 548 Psycholinguistics & Literacy ... 3 ED-BLESL 510 Field Experience in ESL Classrooms ... 1 ED-BLESL 511 Contemporary Issues in Bilingual Education 2 ED-BLESL 600 Assessment [Capstone Course] (P/F) ... 1	28
Total	32

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

See page 52 for a definition of course numbering and terminology.

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.

Refer to the *University-wide Graduate Courses* section in this catalog for additional course offerings.

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, Aida Hutz, April Schottelkorb

Adjunct Graduate Faculty: Mary Barros-Bailey, Mary Campbell, Mary L. Ensley, Margaret Miller, Anne Marie Nelson, Elizabeth Williard

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 611
Telephone (208) 426-3204
e-mail: bbirdsa@boisestate.edu

Diana Doumas, Addiction Counseling
Education Building, Room 610
e-mail: dianadoumas@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 Research 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/behavioral health counseling.

Degree Requirements

Master of Arts in Counseling	
Course Number and Title	Credits
Core	51
COUN 501 Foundations in Counseling	3
COUN 502 Counseling Theories and Applications I	3
COUN 504 Measurement and Evaluation in Counseling	3
COUN 505 Counseling Theories and Applications II	3
COUN 506 Lifespan Development	2
COUN 507 Career Development and Vocational Counseling	3
COUN 508 Special Needs, Ethics and Legal Issues in Counseling	3
COUN 509 Culturally Aware Counseling	3
COUN 511 Family Systems	3
COUN 512 Statistics and Research Design	3
COUN 513 Group Counseling	3
COUN 514 Counseling Practicum I	2
COUN 516 Counseling Practicum II	2
COUN 526 Counseling Internship I	3
COUN 527 Applied Research	1
COUN 528 Counseling Internship II	3
COUN 547 Chemical Addiction and Violence Prevention	3
COUN 550 Diagnosis, Assessment and Treatment Planning	2
COUN 566 Seminar: Counseling with Special Populations	1
COUN 568 Seminar: Professional Counseling	1
COUN 592 Portfolio	1
Additional Specialty Courses	9
Total	60

Graduate Certificate in Addiction Studies

(See Section on Interdisciplinary Programs)

Graduate Certificate in Gerontological Studies

(See Section on Interdisciplinary Programs)

Course Offerings

See page 52 for a definition of course numbering and terminology.

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 512 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)(S/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/SU). 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)(S)(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)(S)(Odd years). Focus on intervention strategies for common later life impairments. Application of theory, research, and practice to gerontological counseling and wellness.

COUN 525 CONSULTATION (1-2-2)(F/S/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 509 or PERM/INST.

COUN 526 COUNSELING INTERNSHIP I (1-4-3)(F/S). 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 531 COUNSELING PRACTICUM INTENSIVE (1-4-3)(F/S). 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/S). 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 533 INTRODUCTION TO SCHOOL COUNSELING (3-0-3)(F/S/SU). Introduces the organization, planning, management, and evaluation of comprehensive school counseling programs. Topics include appropriate roles and functions of school counselors at elementary, middle, and high school levels, coordination of professional services, and ethical and legal considerations. Emphasis on the *Idaho Comprehensive School Counseling Program Model* and the *ASCA National Model*. PREREQ: Admission to Counseling Program or PERM/INST.

COUN 534 COUNSELING CHILDREN AND ADOLESCENTS (3-0-3)(F/S/SU). An overview of developmentally appropriate approaches to counseling children and adolescents in school and mental health settings. Addresses individual and group work, expressive and talk therapies, assessment of treatment progress, working with parents and teachers, and ethical and legal considerations in working with this population. PREREQ: COUN 505 or PERM/INST.

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 545 (MHLTHSCI 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.

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: 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 (1-0-1)(SU)(Even years). Examination of common psychopharmacology issues covering a wide range of disorders.

COUN 555 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 556 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)(F/S). An overview of the symptoms and underlying causal factors associated with the range of depression-based disorders. Depression-based problems are discussed in terms of the interactions between cognitive, behavioral, affective factors, and related treatments are presented. (Pass/Fail.)

COUN 559 FEARS AND PHOBIAS (1-0-1)(F/S). An overview of the symptoms and underlying causal factors associated with the range of anxiety-based problems. Anxiety-based problems are discussed in terms of the interactions between cognitive, behavioral, affective factors, and related treatments are presented. (Pass/Fail.)

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). Discussions 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.

COUN 602 ADVANCED THEORIES AND RESEARCH IN COUNSELING (3-0-3)(F/S/SU). Theoretical bases for counseling efficacy, applicability to multicultural populations, and ethnical/legal considerations. Various methods for evaluating counseling effectiveness, research base for existing counseling theories, and effectiveness of models and treatment strategies of crisis, disasters, and other trauma-causing events. Doctoral students engage in curriculum development, instruction, videotape review, role-plays, and grading of students in corresponding Master's level course. PREREQ: COUN 502 or equivalent.

COUN 606 ADVANCED LIFESPAN DEVELOPMENT (3-0-3)(F/S/SU). Study of theoretical constructs related to developmental processes, both typical and atypical, and analysis of developmentally based behavior patterns across the age spectrum (birth to death) through a variety of contemporary cultures and beliefs. Doctoral students engage in curriculum development, instruction, and grading of students in corresponding Master's level course. PREREQ: COUN 506 or equivalent.

COUN 607 ADVANCED CAREER DEVELOPMENT AND VOCATIONAL COUNSELING (3-0-3)(F/S/SU). Different theoretical and applied approaches to career development and vocational counseling as well as increase awareness, knowledge, and skills related to ethical, multicultural, and social justice issues related to career and vocational counseling. Doctoral students engage in curriculum development, instruction, and grading of students in corresponding Master's level course. PREREQ: COUN 507 or equivalent.

COUN 609 ADVANCED CULTURALLY AWARE COUNSELING (3-0-3)(F/S/SU). Advocacy models and current multicultural issues as they relate to social change theories. Also student will learn models, leadership roles, and strategies for responding to community, national, and international crisis and disasters, as well as understand current topical and political issues in counseling and how those issues affect the daily work of counselors and the counseling profession. Doctoral students engage in curriculum development, instruction, and grading of students in corresponding Master's level course. PREREQ: COUN 509 or equivalent.

COUN 611 ADVANCED FAMILY SYSTEMS (3-0-3)(F/S/SU). Different theoretical approaches to couple and family counseling and increase awareness, knowledge, and skills related to multiculturalism and social justice applied to family systems. Doctoral students engage in curriculum development, instruction, and grading of students in corresponding Master's level course. PREREQ: COUN 511 or equivalent.

COUN 613 ADVANCED GROUP COUNSELING (3-0-3)(F/S/SU). Concepts and skills necessary to understand and lead counseling groups in schools and other settings. Doctoral students will engage in curriculum development, instruction, role-plays, supervision, and providing feedback to students in the corresponding Master's level course. PREREQ: COUN 513 or equivalent.

COUN 614 ADVANCED PRACTICUM (3-0-3)(F/S/SU). Supervised doctoral-level practicum of 100 clock-hours (40 direct/60 indirect). Doctoral student will practice advanced counseling skills in relevant areas such as teaching, supervision, and counseling. PREREQ: COUN 514 and COUN 516, or equivalent.

COUN 624 ADVANCED SUPERVISION (6-0-6)(F/S/SU). Doctoral students will teach the Master's level practicum course as well as provide individual and triadic supervision to Master's level counselor education students. PREREQ: COUN 514 and COUN 516, or equivalent.

COUN 626 DOCTORAL INTERNSHIP (6-0-6)(F/S/SU). Culminating internship in which the student assumes all functions of a counselor and a supervisor while under faculty supervision, providing the range of counseling services from crisis intervention to promotion of personal development and environmental enhancement. (Pass/Fail.) PREREQ: COUN 526 or equivalent.

COUN 664 PROFESSIONAL ORIENTATION TO COUNSELING LEADERSHIP (3-0-3)(F/S/SU). Purpose, theoretical framework and models, roles and relationships, and legal/ethical/multicultural issues associated with supervision and consultation. Additionally, the course will cover major roles, responsibilities, and activities of counselor educators, instructional theory and methods, and ethical/legal/multicultural issues associated with teaching and counselor preparation training. Also, issues related theories and skills of leadership are addressed. PERM/INST.

Refer to the *University-wide Graduate Courses* section in this catalog for additional course offerings.

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 Brendefur, Kathleen Budge, Sara Fry, Philip Kelly, Rickie Miller, Louis Nadelson, Richard Osguthorpe, William Parrett, 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 Education in Educational Leadership
- Master of Science in STEM Education
- 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. A writing sample (e.g., a master's thesis, grant application, or class paper that includes a synthesis of literature).

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 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.

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.

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 GA's must register for a minimum of 9 credits during the regular academic year. To be considered, applications must be submitted to the College of Education Graduate Office (Education 722) by March 1. Typical assignments involve teaching undergraduate 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	
Course Number and Title	Credits
Curriculum and Instruction ED-CIFS 610 The American Culture and the Context of Schooling ..... 3 ED-CIFS 611 School Culture and the Problems of Change ..... 3 ED-CIFS 660 Learning and Cognition ..... 3 ED-CIFS 661 Pedagogical Practices in Education ..... 3 ED-CIFS 662 Curriculum ..... 3 Select one of the following courses: ED-CIFS 612 Strategies for School Improvement ..... 3 ED-CIFS 664 Seminar in Curriculum and Instruction ..... 3 ED-LTCY 556 Large Scale Assessment ..... 3 ED-LTCY 557 Research Base for Contemporary Literacy Curricula 3	18
Research ED-CIFS 650 Analysis of Research Perspectives ..... 3 ED-CIFS 651 Intermediate Statistics in Educational Research ..... 3 ED-CIFS 652 Quantitative Approaches to Research ..... 3 ED-CIFS 653 Qualitative Approaches to Research 3	12
Cognate Area	23-26
600 Assessment [Ed.D. Comprehension Examination] **OR** comparable 600 course from another department in the College of Education	1
Dissertation ED-CIFS 693 Dissertation **OR** comparable 693 course from another department in the College of Education.	9-12
Total	**66**

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.
- Philosophy of education or foundations of education (ED-CIFS 505 or equivalent) must be completed prior to taking ED-CIFS 610 The American Culture and the Context of Schooling.

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.

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 credits. Students may select from three possible culminating experiences.

Degree Requirements

Master of Arts in Education, Curriculum and Instruction	
Course Number and Title	Credits
Required Courses ED-CIFS 503 Fundamentals of Educational Research ..... 3 ED-CIFS 506 Issues in Education ..... 4 ED-CIFS 536 Curriculum Planning and Implementation ..... 3 ED-CIFS 537 Instructional Theory 3	13
Content Elective Courses 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.	12

— continued —

Master of Arts in Education, Curriculum and Instruction (continued)	
Culminating Activity Options Option 1. Thesis or Project ED-CIFS 591 Project **OR** ED-CIFS 593 Thesis ..... 6 (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.) Approved electives ..... 2 Option 2. Capstone Course: (Completion of ED-CIFS 600 Assessment [Capstone Course] in which the student writes and presents a focused synthesis of research literature and course perspectives.) ED-CIFS 600 Assessment [Capstone Course] ..... 1 Approved electives 7	8
Total	**33**

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.

Application and Admission Requirements

Prospective students may apply for admission at any time. However, the following application materials must be received by Graduate Admission and Degree Services by April 1 for the summer session, July 1 for the fall semester, and November 1 for spring semester. Required:

1. Application for admission (www.boisestate.edu/gradcoll).
2. Application fee.
3. Official transcripts of all undergraduate and graduate course work sent directly to Boise State Graduate Admission and Degree Services.
4. Minimum GPA of 3.0 (on a 4.0 scale) for the last two years of undergraduate study, or an overall GPA of 3.0.
5. A sample of scholarly and/or professional writing.
6. Letter of recommendation from school district personnel (if employed as an educator).
7. Letter of application including professional goals.
8. Recommendation following an interview with Educational Leadership Development faculty.

Admission will be granted to qualified applicants who hold a Bachelor's degree from an accredited college or university and have some professional relationship to instruction. Candidates must meet the standards set by the College of Education and participating departments as well as the specific regulations of the particular program to which they apply.

Degree Requirements

Master of Education in Educational Leadership	
Course Number and Title	Credits
ED-CIFS 576 Leadership Foundation	6
ED-CIFS 577 Leading Teaching and Learning	6
ED-CIFS 578 Leading System Change	6
ED-CIFS 579 Educational Leadership Clinical Experience	6
ED-CIFS 600 Assessment [Capstone Course]	6
Total	**30**

Master of Science in STEM Education

Program Coordinator: Louis Nadelson
Education Building, Room 406 Mail Stop 1745
Telephone (208) 426-2856
e-mail: louisnadelson@boisestate.edu

General Information

The curriculum for the Master of Science in STEM Education is targeted towards in-service teachers and stresses current developments in the STEM (Science, Technology, Engineering, and Mathematics) disciplines. In addition to subject matter knowledge, emphasis is placed on STEM pedagogy and educational research. 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 STEM Education Graduate Program Coordinator.

Application and Admission Requirements

Application for admission may be made by graduates of accredited institutions holding a baccalaureate degree or teaching certificate in a STEM 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 average 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 STEM Education	
Course Number and Title	Credits
Required Courses Graduate Core ED-CIFS 506 Issues in Education....4 Select one of the following: ED-CIFS 505 Philosophy of Education....3 ED-CIFS 536 Curriculum Planning and Implementation....3 ED-CIFS 537 Instructional Theory....3	7
Science, Math, or Engineering Education and Content Area Courses No more than 9 hours upper-division undergraduate non-education credits may be applied towards the degree. No workshop credits may be applied here.	14
Approved Electives	3
ED-CIFS 503 Fundamentals of Educational Research....3 ED-CIFS 593 Thesis....6	9
Total	**33**

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 an approved 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 83725-1746. 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 ITM 104, 105 and 106 (or equivalent placement examination, http://cobe.boisestate.edu/itscm/); 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.

Continued enrollment in the Graduate Certificate program and recommendation for certification requires compliance with the Academic Performance requirements listed in the Boise State Graduate Catalog. In addition, admitted students must maintain a GPA of 3.0 and all required courses must be passed with a minimum grade of C-.

Certificate Requirements

The program leading to the Graduate Certificate in Secondary/K-12 Teaching is of primary relevance to students interested in the following occupation (Standard Occupational Classification code in parentheses): Secondary School Teachers, Except Special and Career/Technical Education (25-2031). Information on SOC-coded occupations is available at www.bls.gov/soc/major_groups.htm and subsidiary links. The normal time to complete the certificate requirements is 1 year, the tuition and fees for normal time completion are estimated to be $10,060, and the typical cost for books and supplies not included in tuition and fees is estimated to be $1,000. It is very important that interested students consult the graduate program coordinator for clarification of this information, especially the role of the certificate in preparing individuals for employment in specific occupations.

Graduate Certificate in Secondary/K-12 Teaching	
Course Number and Title	Credits
Summer ED-CIFS 507 Foundations of American Education ..... 3 ED-CIFS 508 Learning and Development of Students ..... 3 ED-CIFS 509 Curriculum, Instruction, and Assessment in Grades 6-12..... 3	9
Fall ED-CIFS 561 Professional Year I — Teaching Experience I ... 1-3 ED-SPED 550 Teaching Students with Exceptional Needs..... 3 ED-LTCY 544 Content Literacy in Secondary Schools ..... 3 Content-specific methods course ..... 3 Courses may have prerequisites in addition to the admission requirements.	10-12
Spring ED-CIFS 550 Seminar On Teaching and Learning ..... 3 ED-CIFS 562 - 566 Professional Year II 12	15
Total	**34-36**

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

See page 52 for a definition of course numbering and terminology.

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 COMPARATIVE EDUCATION (3-0-3)(F/S/SU). A comparative analysis of multiple countries' educational systems. Contemporary educational systems are analyzed as instruments of national development, human development and social transformation.

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 510 INTRODUCTORY STATISTICS IN EDUCATIONAL RESEARCH (3-0-3)(F). Basic parametric and non-parametric statistical procedures commonly used in educational research, including z-test, t-test, one-way analysis of variance, simple correlation, simple regression, and chi-square. Data analyses and interpretation procedures via computer-based statistical packages.

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 533 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 values from history and/or 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 perspective will be explored.

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 540 MATHEMATICAL THINKING FOR INSTRUCTION: NUMBER AND OPERATIONS K-3 (3-0-3)(F/S/SU). Examines how children develop an understanding of number sense, addition, subtraction, multiplication, division, place value, rational number, and algebraic reasoning. Emphasizes an investigative approach involving problem solving, reasoning and proof, connections, representations, and communication.

ED-CIFS 541 MATHEMATICAL THINKING FOR INSTRUCTION: EARLY NUMERACY AND OPERATIONS K-3 (3-0-3)(F/S/SU). Examines how children develop an understanding of the relationship between development and early numeracy, counting, one-to-one correspondence, and early number sense. Emphasizes an investigative approach involving problem solving, reasoning and proof, connections, representations, and communication. PREREQ: ED-CIFS 540.

ED-CIFS 542 MATHEMATICAL THINKING FOR INSTRUCTION: NUMBER AND OPERATIONS 4-8 (3-0-3)(F/S/SU). Examines topics in number and operations taught in grades 4-8 with an emphasis on an investigative approach involving problem solving, reasoning and proof, connections, representations and communication. Topics include a focus on the foundational structure of rational numbers, rational number operations, and algebraic reasoning.

ED-CIFS 543 MATHEMATICAL THINKING FOR INSTRUCTION: APPLICATIONS OF RATIONAL NUMBERS, RATIO, AND PROPORTION 4-8 (3-0-3)(F/S/SU). Examines topics related to the application of rational number and rational number operations with an emphasis on an investigative approach involving problem solving, reasoning and proof, connections, representations and communication. Topics include comparison, ratio, proportion, and early algebraic applications. PREREQ: ED-CIFS 542.

ED-CIFS 544 MATHEMATICAL THINKING FOR INSTRUCTION: NUMBER AND OPERATIONS 6-12 (3-0-3)(F/S/SU). Examines topics in number and operations that are foundational to an understanding of algebra with an emphasis on an investigative approach involving problem solving, reasoning and proof, connections, representations and communication. Topics include equality, algebraic reasoning, generalizing, functions, and modeling.

ED-CIFS 545 MATHEMATICAL THINKING FOR INSTRUCTION: ADVANCED ALGEBRA 6-12 (3-0-3) (F/S/SU). Examines topics in algebra that are foundational to an understanding of the application of advanced algebraic concepts with an emphasis on an investigative approach involving problem solving, reasoning and proof, connections, representations and communication. Topics include generalization, functions, modeling, and their application in understanding the structure of mathematics through early calculus. PREREQ: ED-CIFS 544.

ED-CIFS 546 MATHEMATICAL THINKING FOR INSTRUCTION: BUILDING TEACHER LEADERS OF MATHEMATICS (3-0-3)(F/S/SU). Examines foundational topics of effective professional development and coaching strategies with individuals and groups of teachers of mathematics with an emphasis on an investigative approach involving problem solving, reasoning and proof, connections, representations and communication. Topics include effective modeling, observation, collaboration, unit study, and best practices as informed by current research.

ED-CIFS 547 MATHEMATICAL THINKING FOR INSTRUCTION: MEASUREMENT AND GEOMETRY (3-0-3)(F/S/SU). Examines topics in measurement and geometry with an emphasis on an investigative approach involving problem solving, reasoning and proof, connections, representations and communication. Topics include unit, zero, transitivity, conservation, shape, and space.

ED-CIFS 548 MATHEMATICAL THINKING FOR INSTRUCTION: PROBABILITY, DATA ANALYSIS, AND STATISTICS (3-0-3)(F/S/SU). Examines topics foundational to an understanding of probability, data analysis, and statistics with an emphasis on an investigative approach involving problem solving, reasoning and proof, connections, representations and communication. Topics include experimental and theoretical probability, the law of large numbers, sample space, independent and dependent events, central tendencies, spread, and representations.

ED-CIFS 550 SEMINAR ON TEACHING AND LEARNING (3-0-3)(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 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 (full-time) 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 (full-time) 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 (full-time) 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 (full-time) 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 effective 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.

ED-CIFS 579 EDUCATIONAL LEADERSHIP CLINICAL EXPERIENCE (1-15-6) (F). This module places candidates in approved partnership schools. Candidates meet in scheduled university classes throughout the experience. Individual work plans are developed collaboratively with candidate, mentor, and advisor. Contracts include required and elective activities, performance outcomes, reading requirements. (Pass/Fail.) PREREQ: ADM/PROG or PERM/INST.

ED-CIFS 610 THE AMERICAN CULTURE AND THE CONTEXT OF SCHOOLING (3-0-3)(F/S/SU). Students will explore the roles of schools in American society, including cross-cultural analyses; identify political forces influencing school policy-making in local, state, national and international arenas; investigate the economics of school improvement proposals; and consider the historical contexts of contemporary improvement efforts. They will give particular attention to the effects on American culture and the school of changing demographics, the challenges of an increasingly diverse society, and the impact of technology and the ongoing information revolution. PREREQ: ED-CIFS 505, ED-CIFS 506 or equivalents.

ED-CIFS 611 SCHOOL CULTURE AND THE PROBLEMS OF CHANGE (3-0-3)(F/S/SU). 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 537.

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-V-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.

Refer to the *University-wide Graduate Courses* section in this catalog for additional course offerings.

Department of Educational Technology

Chair: Kerry Rice
Associate Chair: Constance Wyzard
Education Building, Room 305, Mail Stop 1747
Telephone (208) 426-2050
e-mail: krice@boisestate.edu

Program Developers: Dixie Conner, Jerry Foster

Graduate Faculty: Young Kyun Baek, Lisa Dawley, Yu-Chang Hsu, Jui-Long Hung, Ross Perkins, Kerry Rice, Chareen Snelson, Dazhi Yang, Constance Wyzard

Adjunct Graduate Faculty: Yu-Hui Ching, Stacey DeLoose, Jennifer Freed, Jackie Gerstein, David Gibson, Teresa Grey-Dove, K. Diane Hall, Therese LeTourneau, Barbara Schroeder, Kimberly Staten, John Thompson

Graduate Degrees Offered

- 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

General Information

There are two master's degrees offered in the Department of Educational Technology. Both degrees support the study and practice of facilitating and improving learning of a diverse population by creating, using, managing, and evaluating appropriate technological processes and resources. Believing technology is a tool that enhances and expands the educational environment, we promote the use of current and emergent technologies for teaching and learning in a dynamic global society. Educational technologists are leaders and innovators, serving in institutions of higher education, public or private school settings, federal, state or local educational agencies, community organizations, and the private sector.

The Master of Educational Technology is practitioner oriented, culminating in a portfolio. The Master of Science in Educational Technology is research oriented and intended for those students particularly interested in pursuing a doctoral degree. This degree culminates with a thesis, which represents an original research contribution to the field of educational technology and must be successfully defended at a final oral examination.

Admission Requirements

Admission to the 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 program.

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. GRE scores
2. GPA of 3.0 or better
3. Personal Statement

Master of Educational Technology

Graduate Program Coordinator: Kerry Rice
Student Outreach Services Manager: Kellie Branson
Education Building, Room 304, Mail Stop 1747
Telephone (208) 426-4036
e-mail: kbranson@boisestate.edu

Degree Requirements

Master of Educational Technology	
Course Number and Title	Credits
Requirements EDTECH 501 Introduction to Educational Technology ..... 3 EDTECH 502 The Internet for Educators ..... 3 EDTECH 503 Instructional Design ..... 3 EDTECH 504 Theoretical Foundations of Educational Technology ..... 3 EDTECH 505 Evaluation for Educational Technologists 3	15
Electives A list of approved electives is maintained on the Department of Educational Technology website http://edtech.boisestate.edu.	15
Culminating Activity EDTECH 592 Portfolio 3	3
Total	**33**

Master of Science in Educational Technology

Graduate Program Coordinator: Ross Perkins
Education Building, Room 312, Mail Stop 1747
Telephone (208) 426-4875
e-mail: rossperkins@boisestate.edu

Degree Requirements

Master of Science in Educational Technology	
Course Number and Title	Credits
Requirements EDTECH 501 Introduction to Educational Technology ..... 3 EDTECH 502 The Internet for Educators ..... 3 EDTECH 503 Instructional Design ..... .3 EDTECH 504 Theoretical Foundations of Educational Technology ..... .3 EDTECH 505 Evaluation for Educational Technologists ..... 3 EDTECH 561 Research in Educational Technology ..... 3 EDTECH 562 Introduction to Statistics for Educational Technology 3	21
Electives A list of approved electives is maintained on the Department of Educational Technology website http://edtech.boisestate.edu.	6
Culminating Activity EDTECH 593 Thesis 6	6
Total	**33**

Graduate Certificate in Online Teaching

Graduate Program Coordinator: Kerry Rice
Student Outreach Services Manager: Kellie Branson
Education Building, Room 304, Mail Stop 1747
Telephone (208) 426-4036
e-mail: kbranson@boisestate.edu

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

Graduate Certificate in Online Teaching	
Course Number and Title	Credits
For teachers of K-12 students:	9
EDTECH 521 Online Teaching in the K-12 Environment	3
EDTECH 523 Advanced Online Teaching Methods	3
Choose one of the following:	
EDTECH 502 The Internet for Educators	3
EDTECH 512 Online Course Design	3
EDTECH 531 Teaching and Learning In Virtual Worlds	3
EDTECH 532 Educational Games and Simulations	3
OR	
For teachers of adult learners:	
EDTECH 512 Online Course Design	3
EDTECH 522 Online Teaching for Adult Learners	3
Choose one of the following:	
EDTECH 502 The Internet for Educators	3
EDTECH 513 Multimedia	3
EDTECH 523 Advanced Online Teaching Methods	3
EDTECH 531 Teaching and Learning In Virtual Worlds	3
Total	**9**

Graduate Certificate in School Technology Coordination

Graduate Program Coordinator: Kerry Rice
Student Outreach Services Manager: Kellie Branson
Education Building, Room 304, Mail Stop 1747
Telephone (208) 426-4036
e-mail: kbranson@boisestate.edu

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 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

Graduate Certificate in School Technology Coordination	
Course Number and Title	Credits
EDTECH 501 Introduction to Educational Technology	3
EDTECH 551 Technical and Grant Writing	3
EDTECH 552 Introduction to Network Administration	3
EDTECH 554 Managing Technology Integration in Schools	3
Total	**12**

Graduate Certificate in Technology Integration Specialist

Graduate Program Coordinator: Kerry Rice
Student Outreach Services Manager: Kellie Branson
Education Building, Room 304, Mail Stop 1747
Telephone (208) 426-4036
e-mail: kbranson@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.

Certificate Requirements

Graduate Certificate in Technology Integration Specialist	
Course Number and Title	Credits
EDTECH 502 The Internet for Educators	3
EDTECH 541 Integrating Technology into the Classroom Curriculum	3
EDTECH 542 Technology-Supported Project-Based Learning	3
Total	**9**

Course Offerings

See page 52 for a definition of course numbering and terminology.

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 (3-0-3)(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 GRAPHIC DESIGN FOR LEARNING (3-0-3) (F/S/SU). Select, arrange, and design visual representations (e.g., text, graphics, tables) based on theories, models, and principles of visual literacy and graphic design.

EDTECH 511 INTERACTIVE COURSEWARE DEVELOPMENT (3-0-3)(F/S/SU). Learning the tools for development of instructional courseware, which is the graphic 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 INTRODUCTION TO NETWORK ADMINISTRATION (3-0-3) (F/S/SU). Introduction to technical competencies for school technology coordinators, addressing network administration, topography, and devices. Preparation for the CCENT (Cisco Certified Entry Networking Technician) or CCNA (Cisco Certified Network Associate) certificate.

EDTECH 554 MANAGING TECHNOLOGY INTEGRATION IN SCHOOLS (3-0-3) (F/S/SU). Explores strategies for planning and implementing technology integration on an organizational level and examines larger scale professional development models. Develops skills for taking a leadership role in district technology use planning, implementation and assessment.

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 562 INTRODUCTION TO STATISTICS FOR EDUCATIONAL TECHNOLOGY (3-0-3)(F/S/SU). Measures of central tendency and variability, one and two sample tests, confidence intervals, chi-square, introduction to bivariate correlation, and analysis of variance.

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.

SELECTED TOPICS (3-0-3). To be offered as staff availability permits:

EDTECH 580 TECHNOLOGY IN THE CONTENT AREA
EDTECH 581 LEADERSHIP IN EDUCATIONAL TECHNOLOGY
EDTECH 582 EMERGING TRENDS IN EDUCATIONAL TECHNOLOGY
EDTECH 583 GLOBAL AND CULTURAL PERSPECTIVES IN EDUCATIONAL TECHNOLOGY
EDTECH 584 PROJECT MANAGEMENT IN EDUCATIONAL SETTINGS

Refer to the *University-wide Graduate Courses* section in this catalog for additional course offerings.

Department of Kinesiology

Chair: Ronald Pfeiffer
Bronco Gymnasium, Room 209, Mail Stop 1710
Telephone (208) 426-4270
FAX (208) 426-1894
e-mail: RPfeiff@boisestate.edu

Graduate Faculty: Kenneth Bell, Eric Dugan, Yong Gao, Terry-Ann Gibson, Tyler Johnson, Laura Jones Petranek, Shelley Lucas, John McChesney, Linda Petlichkoff, Ron Pfeiffer, Lynda Ransdell, Jane Shimon, Shawn Simonson, Caile Spear, Ross Vaughn

Adjunct Graduate Faculty: Michael Curtin, Gregory Mondin, James Moore

Graduate Degrees Offered

- Master of Kinesiology, Behavioral Studies
- Master of Kinesiology, Biophysical Studies
- Master of Kinesiology, Socio-historical Studies
- Master of Kinesiology in Physical Education Pedagogy
- 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 Science in Physical Education Pedagogy

General Information

Master of Kinesiology, Master of Science in Exercise and Sport Studies

The Master of Science in Exercise and Sport Studies (MSESS) and the Master of Kinesiology (MK) are designed to accommodate students with diverse academic backgrounds. The MK program is practitioner oriented, concluding with a capstone course. The MSESS 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. When applying for admission to either the MK or MSESS program, applicants will select one area of emphasis.

Master of Kinesiology, Master of Science: Physical Education Pedagogy

The Master of Science (MS) and Master of Kinesiology (MK) in Physical Education Pedagogy are designed to provide a graduate level experience for students seeking to improve their ability to teach movement skills in a physical education or athletics setting. These two options provide content and experiences for practitioners who are teaching in the elementary and secondary schools, or are planning careers at the collegiate level. The MS degree is research-oriented and suited for those students particularly interested in pursuing a doctoral degree. This degree requires the completion of a thesis as the culminating activity. The MK degree is practitioner-oriented and is designed to improve instructional skills and reflection in practicing educators, and offers students an option for their

culminating activity: a capstone course or a project. 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. The MK and the MS degrees do not lead to initial teacher certification nor do they require teacher certification for admission.

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. The application deadline for fall semester is May 1. (Students are admitted in fall semester only.) Application materials may be submitted at any time; review of those files begins March 1st.

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. Applicants to either of the Physical Education Pedagogy programs will be required to have a degree in either physical education/kinesiology or education (e.g., secondary education, elementary education).
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
Bronco Gymnasium, Room 108A, Mail Stop 1710
Telephone (208) 426-2446
e-mail: smlucas@boisestate.edu

Degree Requirements

Master of Kinesiology	
Course Number and Title	Credits
Core Requirements Select one course from each of the following areas: Behavioral Studies KINES 530 Psychology of Exercise and Sport....3 KINES 560 Motor Learning....3 Biophysical Studies KINES 500 Functional Anatomy....3 KINES 510 Physiology of Activity....3 KINES 520/ME 520 Advanced Biomechanics....3 Socio-historical Studies KINES 535 Sociology of Exercise and Sport....3 KINES 550 Philosophy of Exercise and Sport....3 KINES 582 Selected Topics in Sport History....3 KINES 598 Graduate Seminar....1-2 (Enrollment is required each Fall semester of all graduate students in residence; two credits may be applied toward graduation.)	10-11
Methods of Inquiry KINES 551 Research Design in Exercise and 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 SOC 500 Advanced Social Statistics....3 SOC 502 Qualitative Social Research Methods....3 SOC 571 Feminist Sociological Theory....3	6
Approved Electives A list of approved electives for each of the three areas of emphasis, **Behavioral Studies, Biophysical Studies, and Socio-historical Studies,** is available on the departmental website.	18
KINES 600 Assessment [Capstone Course]	3
Total	**37-38**

Master of Kinesiology in Physical Education Pedagogy

Graduate Program Coordinator: Shelley Lucas
Bronco Gymnasium, Room 108A, Mail Stop 1710
Telephone (208) 426-2446
e-mail: smlucas@boisestate.edu

Degree Requirements

Master of Kinesiology in Physical Education Pedagogy	
Course Number and Title	Credits
Core Requirements KINES 555 Physical Education Pedagogy ..... 3 Select one course from two of the following areas: Behavioral Studies KINES 530 Psychology of Exercise and Sport..... 3 KINES 560 Motor Learning ..... 3 Biophysical Studies KINES 500 Functional Anatomy ..... 3 KINES 510 Physiology of Activity..... 3 KINES 520/ME 520 Advanced Biomechanics..... 3 Socio-historical Studies KINES 535 Sociology of Exercise and Sport ..... 3 KINES 550 Philosophy of Exercise and Sport..... 3 KINES 582 Selected Topics in Sport History 3	9
Methods of Inquiry ED-CIFS 503 Fundamentals of Educational Research **OR** KINES 551 Research Design in Exercise & Sport ..... 3 ED-CIFS 537 Instructional Theory..... 3	6
ED-CIFS 506 Issues in Education	4
Approved Electives To be determined in consultation with advisor.	12
Option 1. KINES 600 Assessment [Capstone Course] ..... 3 Approved Electives..... 3 **Option 2.** KINES 591 Project..... 6	6
Total	**37**

Master of Science in Exercise and Sport Studies

Graduate Program Coordinator: Shelley Lucas
Bronco Gymnasium, Room 108A, Mail Stop 1710
Telephone (208) 426-2446
e-mail: smlucas@boisestate.edu

Degree Requirements

Master of Science in Exercise and Sport Studies	
Course Number and Title	Credits
Core Requirements Select one course from each of the following areas: Behavioral Studies KINES 530 Psychology of Exercise and Sport..... 3 KINES 560 Motor Learning ..... 3 Biophysical Studies KINES 500 Functional Anatomy ..... 3 KINES 510 Physiology of Activity..... 3 KINES 520/ME 520 Advanced Biomechanics..... 3 Socio-historical Studies KINES 535 Sociology of Exercise and Sport ..... 3 KINES 550 Philosophy of Exercise and Sport..... 3 KINES 582 Selected Topics in Sport History..... 3 KINES 598 Graduate Seminar..... 1-2 (Enrollment is required each Fall semester of all graduate students in residence; two credits may be applied toward graduation.)	10-11
Methods of Inquiry KINES 551 Research Design in Exercise and 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 SOC 500 Advanced Social Statistics ..... 3 SOC 502 Qualitative Social Research Methods..... 3 SOC 571 Feminist Sociological Theory..... 3	6
Approved Electives A list of approved electives for each of the three areas of emphasis, **Behavioral Studies, Biophysical Studies, and Socio-historical Studies,** is available on the departmental website.	15
KINES 593 Thesis	6
Total	**37-38**

Master of Science in Physical Education Pedagogy

Graduate Program Coordinator: Shelley Lucas
Bronco Gymnasium, Room 108A, Mail Stop 1710
Telephone (208) 426-2446
e-mail: smlucas@boisestate.edu

Degree Requirements

Master of Science in Physical Education Pedagogy	
Course Number and Title	Credits
Core Requirements KINES 555 Physical Education Pedagogy ..... 3 Select one course from two of the following areas: Behavioral Studies KINES 530 Psychology of Exercise and Sport ..... 3 KINES 560 Motor Learning ..... 3 Biophysical Studies KINES 500 Functional Anatomy ..... 3 KINES 510 Physiology of Activity ..... 3 KINES 520/ME 520 Advanced Biomechanics ..... 3 Socio-historical Studies KINES 535 Sociology of Exercise and Sport ..... 3 KINES 550 Philosophy of Exercise and Sport ..... 3 KINES 582 Selected Topics in Sport History 3	9
Methods of Inquiry ED-CIFS 503 Fundamentals of Educational Research **OR** KINES 551 Research Design in Exercise & Sport ..... 3 ED-CIFS 537 Instructional Theory 3	6
ED-CIFS 506 Issues in Education	4
Approved Electives To be determined in consultation with advisor.	12
KINES 593 Thesis	
Total	**37**

Course Offerings

See page 52 for a definition of course numbering and terminology.

KINES—KINESIOLOGY

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 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 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 (ME 520) ADVANCED BIOMECHANICS (3-0-3)(F). Mechanical principles and analytical methods used in traditional and contemporary biomechanics. Topics include functional anatomy, joint kinematics, inverse dynamics, mechanical properties of biological materials, and modeling of the musculoskeletal system. May be taken for KINES or ME credit, but not both. PREREQ: ENGR 220 or PERM/INST.

KINES 525 (ME 525) LABORATORY TECHNIQUES IN BIOMECHANICS (3-0-3)(S). An introduction to the analysis techniques used to study the mechanics of human motion. Topics include cinematography, videography, force transducers, electromyography and computer analysis techniques. May be taken for KINES credit or ME credit, but not both. PREREQ: KINES 520/ME 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 CLINICAL EXERCISE PHYSIOLOGY AND PRESCRIPTION (3-0-3). The study of clinical exercise physiology through special considerations: risk detection and reduction; age-related adaptations; various chronic illnesses; cardiovascular, musculoskeletal, and metabolic diseases; and their application to exercise 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 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.

KINES 555 PHYSICAL EDUCATION PEDAGOGY (3-0-3)(F/S/SU). Advanced pedagogical theory and practice in physical education. In-depth study of the teaching and learning process through application of advanced teaching methods and student assessment.

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 573 (MHLTHSCI 573) PHYSICAL ACTIVITY INTERVENTIONS (3-0-3)(F/S). Coverage of the use of individual, interpersonal, and group/community theories and models to design, implement, and evaluate interventions that facilitate increases in physical activity in various populations. Other topics include the influence of setting, activity recommendations, and media on program effectiveness. 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.

Refer to the *University-wide Graduate Courses* section in this catalog for additional course offerings.

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

Master of Arts in Education, Literacy	
Course Number and Title	Credits
Educational Foundations ED-CIFS 506 Issues in Education ..... 4 ED-LTCY 540 Foundation of Literacy Instruction 3	7
Research in Literacy ED-CIFS 503 Fundamentals of Educational Research ..... 3 ED-LTCY 560 Interpreting Research in Literacy 2	2-3
Assessment and Instruction ED-LTCY 541 Assessment and Instruction: Reading Difficulties K-12 ..... 3 ED-LTCY 542 Best Practices in Literacy Improvement 3	3
Literacy Processes ED-LTCY 554 Review of Literacy Processes and Practices	3

— continued —

Master of Arts in Education, Literacy (continued)	
Literacy and Culture ED-BLESL 502 Methods of Teaching ESL: Maximizing Innovative Pedagogical Approaches to Teaching ESL ..... 3 ED-CIFS 610 The American Culture and the Context of Schooling ..... 3 ED-LTCY 559 Language, Literacy and Culture ..... 3 ENGL 550 Literature and Culture 3	3
Linguistics and Language Development ED-LTCY 548 Psycholinguistics and Literacy ..... 3 ENGL 505 Linguistics 3	3
Elective Core Courses Course selected may not be used to fulfill credit requirements for either the area of emphasis or in the Project/Thesis option. ED-LTCY 532 Advanced Principles and Practices in Teaching Language Arts and Linguistics ..... 3 ED-LTCY 543 Seminar in Literacy Education ..... 3 ED-LTCY 544 Content Literacy in Secondary Schools ..... 3 ED-LTCY 545 Writing Processes, Instruction, and Assessment: K-8 ..... 3 ED-LTCY 546 Advanced Study of Children's Literature ..... 3 ED-LTCY 547 Advanced Young Adult Literature ..... 3 ED-LTCY 550 Advanced Content Area Literacy ..... 3 ED-LTCY 551 Literacy Leadership ..... 3 ED-LTCY 552 Technology and Literacy ..... 3 ED-LTCY 556 Large-Scale Literacy Assessment ..... 3 ED-LTCY 557 Research Base for Contemporary Literacy Curricula 3	3
Options **1. Thesis or Project** 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). ED-LTCY 591 Project ..... 3 ED-LTCY 593 Thesis ..... 6 Electives ..... 3-6 **2. Area of Emphasis** Select from one of the following: **Adolescent Literacy** Select **three** from the following course options: ED-BLESL 506 Multicultural Literature: Promoting Social Justice ..... 3 ED-LTCY 544 Content Literacy in Secondary Schools ..... 3 ED-LTCY 547 Advanced Young Adult Literature ..... 3 ENGL 501 The Teaching of Writing* ..... 3 ENGL 502 Teaching Creative Nonfiction, Poetry, and Fiction Writing ..... 3 ENGL 581 Literature for use in Junior and Senior High Schools ..... 3 ENGL 582 Selected Topics in Teaching English Language Arts 3	9

— continued —

Master of Arts in Education, Literacy (continued)	
Early Literacy Select **three** from the following course options: ED-BLESL 502 Methods of Teaching ESL: Maximizing Innovative Pedagogical Approaches to Teaching ESL ..... 3 ED-LTCY 545 Writing Processes, Instruction, and Assessment: K-8 ..... 3 ED-LTCY 546 Advanced Study of Children's Literature ..... 3 ED-LTCY 549 Idaho Comprehensive Literacy Course ..... 3 ED-LTCY 550 Advanced Content Area Literacy ..... 3 **English Language Learners** Select **three** from the following course options: ED-BLESL 501 Culturally Diverse Learners ..... 3 ED-BLESL 502 Methods of Teaching ESL: Maximizing Innovative Pedagogical Approaches to Teaching ESL ..... 3 ED-BLESL 505 Applied Linguistics: Nurturing Communicative Competence ..... 3 ED-LTCY 545 Writing Processes, Instruction, and Assessment: K-8 ..... 3 **Language Arts** Select **three** from the following course options: ED-BLESL 502 Methods of Teaching ESL: Maximizing Innovative Pedagogical Approaches to Teaching ESL ..... 3 ED-LTCY 532 Advanced Principles and Practices in Teaching Language Arts and Linguistics ..... 3 ED-LTCY 544 Content Literacy in Secondary Schools ..... 3 ED-LTCY 545 Writing Processes, Instruction, and Assessment: K-8 ..... 3 ED-LTCY 546 Advanced Study of Children's Literature ..... 3 ED-LTCY 547 Advanced Young Adult Literature ..... 3 ED-LTCY 550 Advanced Content Area Literacy ..... 3 ENGL 501 The Teaching of Writing ..... 3 ENGL 509 Book Arts ..... 3 ENGL 582 Selected Topics in Teaching English Language Arts ..... 3 **Literacy and Technology** Select **three** from the following course options: ED-LTCY 552 Technology and Literacy ..... 3 EDTECH 541 Integrating Technology into Classroom Curriculum ..... 3 ENGL 582 Selected Topics in Teaching English Language Arts ..... 3 **Literature for Youth** Select **three** from the following course options: ED-BLESL 506 Multicultural Literature: Promoting Social Justice ..... 3 ED-LTCY 546 Advanced Study of Children's Literature ..... 3 ED-LTCY 547 Advanced Young Adult Literature ..... 3 ENGL 502 Teaching Creative Nonfiction, Poetry, and Fiction Writing ..... 3 ENGL 581 Literature for use in Junior and Senior High Schools 3	

— continued —

Master of Arts in Education, Literacy (continued)	
Middle Literacy	
Select **three** from the following course options:	
ED-BLESL 506 Multicultural Literature: Promoting Social Justice	3
ED-LTCY 545 Writing Processes, Instruction, and Assessment: K-8	3
ED-LTCY 546 Advanced Study of Children's Literature	3
ED-LTCY 547 Advanced Young Adult Literature	3
ED-LTCY 550 Advanced Content Area Literacy	3
ENGL 581 Literature for use in Junior and Senior High Schools	3
Reading Coaches	
Select **three** from the following course options:	
ED-BLESL 502 Methods of Teaching ESL: Maximizing Innovative Pedagogical Approaches to Teaching ESL	3
ED-LTCY 532 Advanced Principles and Practices in Teaching Language Arts and Linguistics	3
ED-LTCY 541 Assessment and Instruction: Reading Difficulties K-12	3
ED-LTCY 542 Best Practices in Literacy Improvement	3
ED-LTCY 545 Writing Processes, Instruction, and Assessment: K-8	3
ED-LTCY 548 Psycholinguistics and Literacy	3
ED-LTCY 549 Idaho Comprehensive Literacy Course	3
ED-LTCY 551 Literacy Leadership	3
Reading Specialist	
Select **three** from the following course options:	
ED-BLESL 502 Methods of Teaching ESL: Maximizing Innovative Pedagogical Approaches to Teaching ESL	3
ED-LTCY 532 Advanced Principles and Practices in Teaching Language Arts and Linguistics	3
ED-LTCY 542 Best Practices in Literacy Improvement	3
ED-LTCY 545 Writing Processes, Instruction, and Assessment: K-8	3
ED-LTCY 548 Psycholinguistics and Literacy	3
ED-LTCY 549 Idaho Comprehensive Literacy Course	3
ED-LTCY 551 Literacy Leadership	3
ED-LTCY 555 Directing and Supervising Reading Programs	3
ED-LTCY 556 Large-Scale Literacy Assessment	3
ED-SPED 552 Instructional Strategies for Special Educators	3
ENGL 582 Selected Topics in Teaching English Language Arts	3
Writing	
Select **three** from the following course options:	
ED-BLESL 502 Methods of Teaching ESL: Maximizing Innovative Pedagogical Approaches to Teaching ESL	3
ED-LTCY 545 Writing Processes, Instruction, and Assessment: K-8	3
ENGL 501 The Teaching of Writing*	3
ENGL 509 Book Arts	3

— continued —

Master of Arts in Education, Literacy (continued)	
ED-LTCY 600 Assessment [Capstone Course]	1
Total	**34-35**

*Students seeking to take a course(s) with co-requisites must request a waiver.

Completion of the required courses in the Master of Arts in Education, Literacy may not qualify the candidate for a state of Idaho Literacy 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 Literacy Endorsement requirements can be found at http://education.boisestate.edu/literacy.

Course Offerings

See page 52 for a definition of course numbering and terminology.

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/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 I-III). 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.

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 ADVANCED CONTENT AREA LITERACY (3-0-3)(F/S/SU). Examines newest research in content literacy and explores in greater depth fundamental topics. Includes vocabulary, comprehension, writing to learn, study strategies, and coaching of content teachers. For students seeking Idaho State Literacy Endorsement. PREREQ: ED-LTCY 440 or ED-LTCY 441 or ED-LTCY 444 or any other equivalent content area literacy course.

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). Examines appropriate and effective uses of technology in literacy development. Explores impact of technology on definition of literacy. New literacies are defined and explored.

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/SU). 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.

Refer to the *University-wide Graduate Courses* section in this catalog for additional course offerings.

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, Deborah Carter, Jack Hourcade, Michael Humphrey, Evelyn Johnson, Juli Pool, Lee Woods

Adjunct Graduate Faculty: William Cottle, Elizabeth Noonan, Charlotte Silva, Elizabeth West

Graduate Degrees Offered

- Master of Arts in Early Childhood Studies
- Master of Education in Early Childhood Studies
- Master of Arts in Special Education
- Master of Education in Special Education
- Graduate Certificate in Consulting Teacher Endorsement

General Information

Early Childhood Studies

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. The candidate should seek the help of an advisor to plan course work that satisfies certification requirements. The Master of Arts requires a thesis, while the Master of Education requires a project or comprehensive examination.

Special Education

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.

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 course work that satisfies certification requirements.

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.

Application Process

In addition to the application materials required by the Graduate College, for admission to the M.A. and M.Ed. programs in Special Education and in Early Childhood Studies prospective students should submit directly to the Special Education Graduate Program Coordinator a one to two page essay outlining the applicant's professional background, and interest in graduate study in that area. International students whose first language is not English must take the Test of English as a Foreign Language (TOEFL) or the International Language Testing System test (IELTS) with a minimum TOEFL score of 587 (paper-based test) or 95 (internet-based test), or an IELTS score of 6.5.

Master of Arts 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

Degree Requirements

Master of Arts in Early Childhood Studies	
Course Number and Title	Credits
ED-CIFS 503 Fundamentals of Educational Research ..... 3 ED-CIFS 506 Issues in Education 4	7
ED-ECS 510 Issues and Topics in ECSE ..... 3 ED-ECS 511 EI/ECSE Assessment and Evaluation ..... 3 ED-ECS 512 Positive Behavioral Interventions and Supports in Early Childhood ..... 3 ED-ECS 513 Family Systems and Collaboration..... 3 ED-ECS 514 ECSE Methods..... 3	15
Approved ED-SPED graduate electives	3
Approved electives	2
ED-ECS Thesis	6
Total	**33**

Completion of the required courses in the Master of Arts in 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

Degree Requirements

Master of Education in Early Childhood Studies	
Course Number and Title	Credits
ED-CIFS 503 Fundamentals of Educational Research ..... 3 ED-CIFS 506 Issues in Education 4	7
ED-ECS 510 Issues and Topics in ECSE ..... 3 ED-ECS 511 EI/ECSE Assessment and Evaluation ..... 3 ED-ECS 512 Positive Behavioral Interventions and Supports in Early Childhood..... 3 ED-ECS 513 Family Systems and Collaboration..... 3 ED-ECS 514 ECSE Methods..... 3	15
Approved ED-SPED graduate electives	3
Culminating Activity Options Option 1. Project Approved Electives..... 2 ED-ECS 591 Project..... 6 Option 2. Comprehensive Examination Approved Electives..... 7 ED-ECS 600 Assessment [Comprehensive Examination] .. 1	8
Total	**33**

Completion of the required courses in the Master of Education in 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: Jack Hourcade
Education Building, Room 515, Mail Stop 1725
Telephone (208) 426-3544
e-mail: jhourca@boisestate.edu

Degree Requirements

Master of Arts in Special Education	
Course Number and Title	Credits
ED-CIFS 506 Issues in Education	4
Special Education Coursework ED-SPED 552 Instructional Strategies for Special Educators **OR** ED-SPED 556 Seminar in Severe Disabilities ..... 3 ED-SPED 554 Positive Behavior Programs ..... 3 ED-SPED 555 Issues and Trends in Special Education ..... 3 ED-SPED 557 Universal Design and Assistive Technology .... 3 ED-SPED 590 Practicum: Special Education 3	15
Culminating Activity Coursework ED-CIFS 503 Fundamentals of Educational Research ..... 3 ED-SPED 593 Thesis 6	9
Approved electives	5
Total	**33**

Master of Education in Special Education

Graduate Program Coordinator: Jack Hourcade
Education Building, Room 515, Mail Stop 1725
Telephone (208) 426-3544
e-mail: jhourca@boisestate.edu

Degree Requirements

Master of Education in Special Education	
Course Number and Title	Credits
ED-CIFS 506 Issues in Education	4
Special Education Coursework ED-SPED 552 Instructional Strategies for Special Educators **OR** ED-SPED 556 Seminar in Severe Disabilities ..... 3 ED-SPED 554 Positive Behavior Programs ..... 3 ED-SPED 555 Issues and Trends in Special Education ..... 3 ED-SPED 557 Universal Design and Assistive Technology .... 3 ED-SPED 590 Practicum: Special Education 3	15
General Education Coursework ED-CIFS 503 Fundamentals of Educational Research	3
Culminating Activity Options Option 1. Project ED-SPED 591 Project ..... 6 Approved electives ..... 5 Option 2. Comprehensive Examination ED-SPED 600 Assessment [Comprehensive Examination] ..... 1 Approved electives 10	11
Total	**33**

Graduate Certificate in Consulting Teacher Endorsement

Graduate Program Coordinator: Evelyn Johnson
Education Building, Room 513, Mail Stop 1725
Telephone (208) 426-2189
e-mail: evelynjohnson@boisestate.edu

General Information

The Graduate Certificate in Consulting Teacher Endorsement is intended for students who want to develop professional skills and knowledge to successfully teach students with disabilities in Idaho. Students who complete this program and who hold an Idaho State Teaching Certificate will be eligible for the Idaho State Consulting Teacher Endorsement. The program will enable students to develop expertise in the areas of mentoring and tiered service delivery, and then select an area of emphasis in instructional design for students with disabilities, positive behavior support, secondary transition or early childhood special education.

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 special education and early childhood studies. 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 Masters program in Special Education or Early Childhood Studies and the Graduate Certificate, Consulting Teacher Endorsement 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.

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 the Masters program in Early Childhood Studies or Special Education.

Certificate Requirements

Graduate Certificate in Consulting Teacher Endorsement	
Course Number and Title	Credits
ED-SPED 549 Tiered Service Delivery Models ..... 3 ED-SPED 559 Mentoring 3	6
Choose one of the following emphases: **Instructional Design** ED-SPED 552 Instructional Strategies for Special Educators ..... 3 ED-SPED 557 Universal Design and Assistive Technology .... 3 ED-SPED 558 Data-Based Decision Making and Assessment ..... 3 **Positive Behavior Support** ED-ECS 512 Positive Behavior Interventions and Supports in Early Childhood **OR** ED-SPED 554 Positive Behavior Programs ..... 3 ED-ECS 517/ED-SPED 517 School-Wide Behavior Support Systems ..... 3 ED-ECS 518/ED-SPED 518 Intensive, Individualized Behavior Support ..... 3 **Secondary Transition** ED-SPED 541 Foundations of Secondary Transition ..... 3 ED-SPED 542 Post-Secondary Environments and Interagency Collaboration ..... 3 ED-SPED 557 Universal Design & Assistive Technology ..... 3 **Early Childhood Special Education** ED-ECS 511 EI/ECS Assessment and Evaluation ..... 3 ED-ECS 512 Positive Behavior Interventions and Supports in Early Childhood ..... 3 ED-ECS 514 ECSE Methods 3	9
Total	**15**

Course Offerings

See page 52 for a definition of course numbering and terminology.

ED-ECS—EDUCATION-EARLY CHILDHOOD STUDIES

ED-ECS 510 ISSUES AND TOPICS IN ECSE (3-0-3)(F). Current issues and trends in the field of early childhood special education, NAEYC and DEC standards of practice, policies and procedures, theories and models. PREREQ: Graduate standing or PERM/INST.

ED-ECS 511 EI/ECSE ASSESSMENT AND EVALUATION (3-0-3)(F). Assessment and ongoing evaluation in EI/ECSE. Focus on screening, eligibility, curriculum-based measurement, progress monitoring, and data-based decision making. PREREQ: ADM/PROG or PERM/INST. PRE/COREQ: ED-ECS 510.

ED-ECS 512 POSITIVE BEHAVIORAL INTERVENTIONS AND SUPPORTS IN EARLY CHILDHOOD (3-0-3)(F). Implementation of positive behavioral interventions and supports at program, classroom and individual-student levels. Focus on implementing positive, preventive and function-based interventions in school, home and community environments. PREREQ: ADM/PROG or PERM/INST. PRE/COREQ: ED-ECS 510.

ED-ECS 513 FAMILY SYSTEMS AND COLLABORATION (3-0-3)(S). Early intervention models, service delivery, family systems, and collaboration with parents and educators. PREREQ: ADM/PROG or PERM/INST. PRE/COREQ: ED-ECS 510.

ED-ECS 514 ECSE METHODS (3-0-3)(S). Application of a linked system of assessment, goal development, intervention and evaluation to provide services across developmental domains. PREREQ: Admission to program or PERM/INST. PRE/COREQ: ED-ECS 510.

ED-ECS 517 (ED-SPED 517) SCHOOL-WIDE BEHAVIOR SUPPORT SYSTEMS (3-0-3)(S). School-wide systems of behavior support including (a) the data, systems and practices necessary to implement a three-tiered model of behavior support, and (b) the readiness requirements, process and considerations for systems-level implementation. May be taken for ED-ECS or ED-SPED credit, but not both. PREREQ: ED-ECS 512 or ED-SPED 554 or PERM/INST.

ED-ECS 518 (ED-SPED 518) INTENSIVE, INDIVIDUALIZED BEHAVIOR SUPPORT (3-0-3)(S). Data, systems and practices necessary to provide high quality intensive, individualized interventions to students who display chronic problem behavior. Addresses functional behavioral assessment and the development of individualized behavior support plans. May be taken for ED-ECS or ED-SPED credit, but not both. PREREQ: ED-ECS 512 or ED-SPED 554 or PERM/INST.

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. Experience is consistent with state certification standards, and NAEYC and DEC standards of practice (Pass/Fail.) PREREQ: Admission to Professional Year or PERM/INST.

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. Experience is consistent with state certification standards, NAEYC, and DEC standards of practice (Pass/Fail.) PREREQ: Admission to Professional Year or PERM/INST.

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. Experience is consistent with state certification standards, NAEYC, and DEC standards of practice. Student must obtain a city childcare license. (Pass/Fail.) PREREQ: Admission to Professional Year or PERM/INST.

ED-SPED—EDUCATION-SPECIAL EDUCATION

ED-SPED 517 (ED-ECS 517) SCHOOL-WIDE BEHAVIOR SUPPORT SYSTEMS (3-0-3)(S). School-wide systems of behavior support including (a) the data, systems and practices necessary to implement a three-tiered model of behavior support, and (b) the readiness requirements, process and considerations for systems-level implementation. May be taken for ED-ECS or ED-SPED credit, but not both. PREREQ: ED-ECS 512 or ED-SPED 554 or PERM/INST.

ED-SPED 518 (ED-ECS 518) INTENSIVE, INDIVIDUALIZED BEHAVIOR SUPPORT (3-0-3)(S). Data, systems and practices necessary to provide high quality intensive, individualized interventions to students who display chronic problem behavior. Addresses functional behavioral assessment and the development of individualized behavior support plans. May be taken for ED-ECS or ED-SPED credit, but not both. PREREQ: ED-ECS 512 or ED-SPED 554 or PERM/INST.

ED-SPED 541 FOUNDATIONS OF SECONDARY TRANSITION (3-0-3)(S). Essential components of career development and transition education for persons with disabilities from middle school through adulthood. Emphasis is placed on IDEA requirements, comprehensive transition assessment, person centered planning, and issues and trends in transition education and services.

ED-SPED 542 POST-SECONDARY ENVIRONMENTS AND INTERAGENCY COLLABORATION (3-0-3)(SU). Skills and strategies for providing meaningful support to transition aged youth with disabilities. Emphasis is placed on interagency collaboration, post-secondary education supports and services, self-determination, and employment and vocational models.

ED-SPED 549 TIERED SERVICE DELIVERY MODELS (3-0-3)(SU). Essential components of a responsive instruction and intervention approach, including screening, instruction, intervention, progress monitoring and fidelity of implementation.

ED-SPED 550 TEACHING STUDENTS WITH EXCEPTIONAL NEEDS (3-0-3)(F). Education of students with exceptional needs. Characteristics of students with disabilities, relevant legislation, assessment techniques, curricular adaptations and accommodations, and collaboration.

ED-SPED 552 INSTRUCTIONAL STRATEGIES FOR SPECIAL EDUCATORS (3-0-3)(S). 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). 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 557 UNIVERSAL DESIGN AND ASSISTIVE TECHNOLOGY (3-0-3)(F). Principles of universal design for learning that promote inclusive learning. Focus on theoretical frameworks and practical applications of instructional design. Adaptive and assistive technology to support the specific needs of students with disabilities.

ED-SPED 558 DATA-BASED DECISION MAKING AND ASSESSMENT (3-0-3)(F). Formative and summative assessment tools to inform special education eligibility, placement, and programming decisions.

ED-SPED 559 MENTORING (3-0-3)(SU). Skills and strategies for providing meaningful support and guidance to fellow teachers, using a variety of coaching styles and mentoring techniques. Develop, implement, and analyze a coaching plan to lay the foundation as a future leader and mentor.

Refer to the *University-wide Graduate Courses* section in this catalog for additional course offerings.

College of Engineering

Interim Dean: Amy J. Moll
Engineering Building, Room 338, Mail Stop 2100
Telephone (208) 426-1153
FAX (208) 426-4466
http://coen.boisestate.edu

Associate Dean for Academic Affairs: Janet Callahan
Telephone (208) 426-1450
Assistant Dean for Research and
Infrastructure: Rex Oxford
Telephone (208) 426-5744

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
- Graduate Certificate in Workplace E-Learning and Performance Support
- Graduate Certificate in Workplace Instructional Design

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
Environmental Research Building, Room 1133, Mail Stop 2060
Telephone (208) 426-3743
http://coen.boisestate.edu/ce/msece.asp

Graduate Faculty: Arvin Farid, Robert Hamilton, David Haws, Mandar Khanal, Sondra Miller, Rebecca Mirsky, George Murgel, Venkataramana R. Sridhar

Adjunct Graduate Faculty: Sudhir Kumar Goyal, Gary Johnson, Arturo Leon

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
Environmental Research Building, Room 4147, Mail Stop 2060
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.

Master of Science in Civil Engineering	
Course Number and Title	Credits
ENGR 500 Research Methods	1
Graduate CE Courses Graduate courses in civil engineering; all courses to be selected with student input and approved by the supervisory committee.	15-24
Other Graduate Courses Graduate courses in civil engineering or a related field; all courses to be selected with student input and approved by the supervisory committee.	0-9
Thesis CE 593 Thesis (P/F)	6
Total	**31**

Master of Engineering in Civil Engineering

Graduate Program Coordinator: George Murgel
Environmental Research Building, Room 4147, Mail Stop 2060
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.

Master of Engineering in Civil Engineering	
Course Number and Title	Credits
Graduate CE Courses Graduate courses in civil engineering; all courses to be selected with student input and approved by the supervisory committee.	18-30
Other Graduate Courses Graduate courses in civil engineering or a related field; all courses to be selected with student input and approved by the supervisory committee.	0-12
Comprehensive Examination CE 600 Assessment [Comprehensive Examination] (P/F)	1
Total	**31**

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.Engr. CE) with the approval of the supervisory committee.

Course Offerings

See page 52 for a definition of course numbering and terminology.

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) HYDROLOGY: FLOW IN GEOLOGIC SYSTEMS (3-0-3)(S). Introduction to the hydrologic cycle focusing on subsurface water and its relationship to surface water. Physics of flow through porous media, physical properties of aquifer systems, methods to determine aquifer characteristics, groundwater modeling and relationships between groundwater and streamflow. May be taken for CE or GEOS credit, but not both. PREREQ: ENGR 330 or MATH 175.

CE 516 (GEOPH 516)(GEOS 516) HYDROLOGY (3-0-3)(F). 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.

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 522 HAZARDOUS WASTE ENGINEERING (3-0-3)(F/S). Physical, chemical, and biological treatment of hazardous wastes. Consideration of legal and political issues. PREREQ: CHEM 112.

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: PERM/INST.

CE 536 HYDRAULICS (3-0-3)(F)(Even years). Applied principles of fluid mechanics, pipe flow, open channel flow, flow nets, and hydraulic machinery. Design. PREREQ: ENGR 330.

CE 537 GIS IN WATER RESOURCES (3-0-3)(F/S)(Odd years). Applications of Geographic Information Systems (GIS) in pre- and post-processing of model inputs and outputs, digital elevation models, flow direction and flow accumulation, spatial analysis and interpretation, Model Builder, data model, tools, functionality and examples of real-world water and natural resource problems and integration of external models (e.g. SWAT). PREREQ: CE 416, GEOG 360, 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 PAVEMENT DESIGN AND EVALUATION (3-0-3)(F/S). 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 562 FOUNDATION DESIGN (3-0-3)(F/S). Design of foundations, slope stabilization, and retaining structures. PREREQ: CE 460.

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 361.

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.

CE 630 (GEOS 630) VADOSE ZONE HYDROLOGY (3-0-3)(F)(Even years). 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 412, GEOS 412, CE 512, or GEOS 512 or PERM/INST.

CE 633 (GEOS 633) CONTAMINANT HYDROGEOLOGY (3-0-3)(F)(Odd years). 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.

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.

Refer to the *University-wide Graduate Courses* section in this catalog for additional course offerings.

Department of Computer Science

Chair: Murali Medidi
Engineering Building, Room 240B, Mail Stop 2075
Telephone (208) 426-3317
FAX (208) 426-2470
http://coen.boisestate.edu/cs/home.asp
e-mail: mmedidi@boisestate.edu

Graduate Faculty: Tim Andersen, James Buffenbarger, Amit Jain, Alark Joshi, Murali Medidi, Sirisha Medidi, Gang-Ryung Uh, Jyh-haw Yeh

Adjunct Graduate Faculty: Teresa Cole

Master of Science in Computer Science

Graduate Program Coordinator: Amit Jain
Micron Engineering Center, Room 302M, Mail Stop 2075
Telephone (208) 426-3821
e-mail: ajain@boisestate.edu

General Information

The Master of Science in Computer Science program has been designed for people who have a good background in computer science at the undergraduate level—that is, either

- a baccalaureate degree in computer science, or
- a degree in a related field with significant course work in computer science.

The Computer Science Graduate Committee may grant provisional admission to promising students with limited computer science background.

Application and Admission Requirements

Applicants must have either a baccalaureate degree in computer science, or a baccalaureate degree in a related field plus substantial course work and/or professional experience in computer science, with an undergraduate GPA of 3.0 or higher.

Admission as a graduate student at Boise State University has two components: 1) admission to the Graduate College, which can occur with unclassified status and 2) admission to a particular program. To apply for admission to the Graduate College, complete the following steps:

- Submit the Boise State University Graduate Admission Application, along with the application fee, to Graduate Admission and Degree Services.
- Arrange for official transcripts from all post-secondary institutions attended to be sent directly to Graduate Admission and Degree Services.

To apply for admission to the graduate program in Computer Science, you will need to complete the following additional steps. A decision on admission into the masters program (for Regular or Provisional status) will not be considered prior to the completion of these steps.

- Send a cover letter, resume and an optional statement of interests directly to the Computer Science Graduate Committee in the Department of Computer Science.
- 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 a 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.

Master of Science in Computer Science	
Course Number and Title	Credits
Graduate Courses related to Computer Science Graduate courses in computer science or a related field; all courses to be selected with student input and approved by the supervisory committee.	21-27
One of the following culminating activities Thesis or Project Option COMPSCI 591 Project ..... 3-6 **OR** COMPSCI 593 Thesis 6-9	3-9
Total	**30**

Course Offerings

See page 52 for a definition of course numbering and terminology.

COMPSCI—COMPUTER SCIENCE

COMPSCI 510 DATABASES (3-0-3)(S). 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.

COMPSCI 512 ADVANCED TOPICS IN DATABASES (3-0-3)(F/S). 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.

COMPSCI 521 DESIGN AND ANALYSIS OF ALGORITHMS (3-0-3)(F/S). 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.

COMPSCI 525 COMPUTER NETWORKS (3-0-3)(F/S). 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.

COMPSCI 530 PARALLEL COMPUTING (3-0-3)(F). 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.

COMPSCI 531 ADVANCED PROGRAMMING LANGUAGES (3-0-3)(F/S). 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.

COMPSCI 541 (ECE 532) COMPUTER ARCHITECTURE (3-0-3)(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 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 330 or PERM/INST.

COMPSCI 542 QUANTITATIVE COMPUTER ARCHITECTURE (3-0-3)(S). 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.

COMPSCI 546 COMPUTER SECURITY (3-0-3)(F/S). 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.

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 330 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 361 or COMPSCI 561

COMPSCI 564 VISUALIZATION TECHNIQUES (3-0-3)(S)(Even years). Fundamentals of visualization including data sources, representations, and graphical integrity. Visualization of scalars, vectors, tensors, flows and high-dimensional data. Visual perception and color theory. Applications from medical imaging, social media, sports, security and surveillance domains. COMPSCI 464 or MATH 275 or MATH 301 recommended. PREREQ: COMPSCI 342.

COMPSCI 567 CRYPTOLOGY I (4-0-4)(F). Introduction to modular arithmetic. The study of: the RSA, El-Gamal, 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 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 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 (1-4 Variable). 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

Refer to the *University-wide Graduate Courses* section in this catalog for additional course offerings.

Department of Electrical and Computer Engineering

Chair: Sin Ming Loo
Engineering Building, Room 240A, Mail Stop 2075
Telephone (208) 426-5679
FAX (208) 426-2470
e-mail: smloo@boisestate.edu

Graduate Faculty: Said Ahmed-Zaid, R. Jacob Baker, Elisa H. Barney Smith, Jim Browning, Kris Campbell, Hao Chen, John Chiasson, Robert Hay, William Knowlton, Wan Kuang, Sin Ming Loo, Maria Mitkova, Nader Rafla, Vishal Saxena, 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

Electrical and Computer Engineering graduate applicants who wish to be considered for financial support should submit a completed Graduate Funding application along with a resume and transcript to the Department office located in the Engineering Building, Room 240. The priority application deadline is February 1 of each year. Late applications may be considered at the Department's discretion. Funding is awarded on a competitive basis. All offers are subject to change as dictated by availability of funds. Additional information on graduate funding opportunities is available from the ECE Department.

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). 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	
Course Number and Title	Credits
Core Sequence ENGR 500 Research Methods ..... 1 At least 3 courses from the following ECE 500 Applied Electromagnetics..... 3 ECE 510 Integrated Circuit Physical Design ..... 3 ECE 520 Advanced Device Design and Simulation..... 3 ECE 530 Digital Hardware Design ..... 3 ECE 560 Linear Systems..... 3 ECE 650 Stochastic Signals and Systems..... 3	10
Major Area of Concentration	15
Emphasis (Minor) Area	9
Electives (with supervisory committee approval)	12
Comprehensive Examination ECE 600 Assessment [Ph.D. Comprehensive Examination] (P/F)..... 1 **Dissertation Proposal** ECE 600 Assessment [Ph.D. Dissertation Proposal] (P/F).. 1 **Culminating Activity** ECE 693 Dissertation (P/F)..... 24	26
Total	**72**

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 dismissal 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 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 reinitiate 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 dismissed 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.

Graduate Assistantship Electrical and Computer Engineering graduate applicants who wish to be considered for financial support

should submit a completed Graduate Funding application along with a resume and transcript to the Department office located in the Engineering Building, Room 240. The priority application deadline is February 1 of each year. Late applications may be considered at the Department's discretion. Funding is awarded on a competitive basis. All offers are subject to change as dictated by availability of funds. Additional information on graduate funding opportunities is available from the ECE Department.

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 R4018). 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: Sin Ming Loo
Engineering Building, Room 240A, Mail Stop 2075
Telephone (208) 426-5679
e-mail: smloo@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.

Master of Science in Computer Engineering	
Course Number and Title	Credits
Graduate Courses Related to Computer Engineering Graduate courses in computer engineering; computer science, or electrical engineering; all courses to be selected with student input and approved by the supervisory committee.	15-24
Other Graduate Courses Graduate courses in computer engineering or a related field; all courses to be selected with student input and approved by the supervisory committee.	0-9
Thesis ECE 593 Thesis (P/F)	6
Total	**30**

Master of Engineering in Computer Engineering

Graduate Program Coordinator: Sin Ming Loo
Engineering Building, Room 240A, Mail Stop 2075
Telephone (208) 426-5679
e-mail: smloo@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.

Master of Engineering in Computer Engineering	
Course Number and Title	Credits
Graduate Courses Related to Computer Engineering Graduate courses in computer engineering, computer science or electrical engineering; all courses to be selected with student input and approved by the supervisory committee.	18-30
Other Graduate Courses Graduate courses in computer engineering or a related field; all courses to be selected with student input and approved by the supervisory committee.	0-12
Comprehensive Examination ECE 600 Assessment [Comprehensive Examination] (P/F)	1
Total	**31**

Master of Science in Electrical Engineering

Graduate Program Coordinator: Said Ahmed-Zaid
Micron Engineering Center, Room 202H, Mail Stop 2075
Telephone (208) 426-4073
e-mail: sahmedzaid@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.

Master of Science in Electrical Engineering	
Course Number and Title	Credits
Graduate Courses Related to Electrical Engineering Graduate courses in electrical engineering; all courses to be selected with student input and approved by the supervisory committee.	15-24
Other Graduate Courses Graduate courses in electrical engineering or a related field; all courses to be selected with student input and approved by the supervisory committee.	0-9
Thesis ECE 593 Thesis (P/F)	6
Total	**30**

Master of Engineering in Electrical Engineering

Graduate Program Coordinator: Said Ahmed-Zaid
Micron Engineering Center, Room 202H, Mail Stop 2075
Telephone (208) 426-4073
e-mail: sahmedzaid@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.

Master of Engineering in Electrical Engineering	
Course Number and Title	Credits
Graduate Courses Related to Electrical Engineering Graduate courses in electrical engineering; all courses to be selected with student input and approved by the supervisory committee.	18-30
Other Graduate Courses Graduate courses in electrical engineering or a related field; all courses to be selected with student input and approved by the supervisory committee.	0-12
Comprehensive Examination ECE 600 Assessment [Comprehensive Examination] (P/F)	1
Total	**31**

Course Offerings

See page 52 for a definition of course numbering and terminology.

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 300 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 310.

ECE 511 CMOS ANALOG IC DESIGN (3-0-3)(F/S). Design, layout, and simulation of CMOS analog integrated circuits. Current mirrors, voltage and current references, amplifiers, and op-amps. PREREQ: ECE 410/510.

ECE 513 RF DESIGN (3-0-3)(S). Design of wireless systems and RF circuits including amplifiers, oscillators, mixers, filters, and matching networks. Comparison of semiconductor device type characteristics and applications. Use of various analysis, simulation, characterization, and measurement tools for low-noise design, stability analysis, distortion analysis and mitigation, frequency synthesis, and transmission line characterization. PREREQ: ECE 300 and ECE 310.

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 320.

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 320.

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 (COMPSCI 541) 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 330 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 330.

ECE 534 COMPUTER NETWORKS (3-0-3)(F/S). Concepts of computer networks and architectures. Network topology, connectivity analysis, delay analysis, local access design. Physical layer, data link layer, higher layer protocols. Study of networks as distributed embedded systems. Routing, flow control, congestion control. Local area networks. PREREQ: ECE 330.

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 537 ASIC CHIP DESIGN (3-0-3)(F/S). 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 ASICs implementing RISCs/DSPs/Superscalars/Fuzzy Logic based systems using standard ASIC design CAD tools. PREREQ: ECE 430/530 and ECE 432/532.

ECE 540 INTRO TO INTEGRATED CIRCUIT PROCESSING (3-0-3)(F). Fundamentals of integrated circuit 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. PREREQ: ECE 320 or PERM/INST. COREQ: ECE 540L.

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 542 PHOTOLITHOGRAPHY (3-0-3)(F/S). Principles of optics, diffraction, interference, superposition of waves, imaging systems, fundamentals of microlithography, 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/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 342. COREQ: ECE 542.

ECE 543 INTRODUCTION TO MEMS (3-0-3)(F/S). 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 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 554 DIGITAL SIGNAL PROCESSING (3-0-3)(F/S). Modern digital signal processing in engineering systems. Review of continuous-time and discrete-time signals, spectral analysis; design of FIR and IIR digital filters. Fast Fourier Transform, two-dimensional signals, realization structure of digital filters, and filter design. PREREQ: ECE 350.

ECE 556 PATTERN RECOGNITION (3-0-3)(S)(Alternate years). Basic concepts of statistical and neural pattern recognition. Structure of pattern classification problems. Mathematics of statistical decision theory; multivariate probability functions, discriminant, parametric and nonparametric techniques. Bayesian and maximum likelihood estimation, feature selection, dimensionality reduction, neural network recognition and clustering. PREREQ: COMPSCI 225, and either MATH 360 or MATH 361.

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 360 or 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/S). 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 ELECTRIC 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 212 and ECE 300.

ECE 572 POWER ELECTRONICS (3-0-3)(F). Power electronic switches, diode and controlled rectifiers, AC-AC phase control, DC-DC converters, inverters, introduction to electric drives and power quality fundamentals. PREREQ: ECE 212.

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 212, 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 411/511.

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 411/511.

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 320 and PHYS 310.

ECE 630 DIGITAL SYSTEMS VERIFICATION (3-0-3)(S)(Odd years). Application-oriented and practical aspects of digital hardware verification for complex ASIC and FPGA designs. State-of-the-art hardware design verification methods, including traditional functional simulation, assertion-based verification methodology and a subset of formal verification techniques. Topics include functional simulation, coverage metrics, testbench design and automation, and event- and assertion-based verification. PREREQ: ECE 530 or PERM/INST.

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 combinatorial 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 430/530, and ECE 410/510.

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 440/540.

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 440/540.

ECE 650 STOCHASTIC SIGNALS AND SYSTEMS (3-0-3)(S). Probability theory for countable and uncountable sample spaces. Topics include random variables, conditional probability, independence, transformation of random variables and their distributions, conditional expectation, mean-square estimation and the orthogonality principle. Stochastic processes studied include Bernoulli, geometric, Poisson, white noise, random walk, and Brownian motion.

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 650.

ECE 652 ADVANCED COMMUNICATIONS THEORY (3-0-3)(F/S). Principles of modern communication systems. Elements of information theory, source encoding, efficient signaling with coded waveforms, convolutional codes; carrier recovery and synchronization under AGN channel; adaptive

equalization; maximum likelihood estimation, Viterbi algorithm. PREREQ: ECE 450/550.

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 661 NONLINEAR SYSTEMS (3-0-3)(F/S). Phenomena peculiar to nonlinear systems. Linearization, iteration and perturbation procedures. Describing function stability analysis. Phase plane methods. Relaxation oscillations and limit cycles. Stability analysis by Lyapunov's method. Popov's theorem. Adaptive control systems. Sensitivity analysis. PREREQ: ECE 560.

ECE 666 MULTIVARIABLE CONTROL SYSTEMS (3-0-3)(S). Linearization of state variable models. Time response of linear time invariant systems. Controllability, observability, and stability of linear systems. Pole placement by state and output feedback. Observers. Linear quadratic regulator control. PREREQ: ECE 560.

ECE 670 ELECTRIC MACHINE DYNAMICS (3-0-3)(F)(Odd years). Dynamic modeling and simulation of AC machines using reference-frame theory and matrix transformations. Three-phase synchronous and induction machine models. Transfer functions and standstill parameter identification. Linearized machine equations and reduced-order models. Unregulated single-machine and multi-machine simulations. Introduction to steady-state and transient stability analysis. PREREQ: ECE 570 or PERM/INST.

ECE 671 POWER SYSTEM DYNAMICS (3-0-3)(S)(Even years). Dynamic modeling and simulation of power system components and their controls. Transient and steady-state stability analysis, stabilization of electromechanical oscillations via excitation control. Methods of coherency identification and dynamic equivalencing. Flexible AC Transmission (FACTS) devices. Subsynchronous resonance in power systems. Voltage stability and control. PREREQ: ECE 573 and ECE 670, or PERM/INST.

ECE 672 CONTROL OF ELECTRIC MACHINES (3-0-3)(F)(Even years). Analysis of symmetrical three-phase induction machines using reference-frame theory and space phasors. Scalar control, vector (field-oriented) control, and direct-torque control of induction motor drives. Squirrel-cage, wound-rotor, doubly-fed, and series-connected induction machines for wind generation. Control of single-phase induction machines and special machines. PREREQ: ECE 570 or PERM/INST.

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.

Refer to the *University-wide Graduate Courses* section in this catalog for additional course offerings.

Department of Instructional & Performance Technology

Chair: Donald Stepich
Engineering 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 Barnes, David Cox, Gary Dickelman, Diane Dormant, Diane Gayeski, Robert Horton, Terrell Perry, Noelle Sweany

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
- Graduate Certificate in Workplace Instructional Design

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 to 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.

The **Graduate Certificate in Workplace Instructional Design** is designed for individuals who wish to develop skills in designing and developing training programs that improve workplace performance. This program emphasizes the development of advanced instructional design skills required to create effective training programs for workplace settings.

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 courses 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 one of the graduate certificate programs 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 two of the graduate 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 are 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.

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

Graduate Program Coordinator: Donald Stepich
Engineering Building, Room 327, Mail Stop 2070
Telephone (208) 426-1312
FAX (208) 426-1970
http://ipt.boisestate.edu
e-mail: dstepich@boisestate.edu

Degree Requirements

Master of Science in Instructional & Performance Technology	
Course Number and Title	Credits
Core Requirements IPT 529 Needs Assessment ..... 4 IPT 530 Evaluation Methodology ..... 4 IPT 535 Principles of Adult Learning ..... 4 IPT 536 Foundations of Instructional and Performance Technology ..... 4 IPT 537 Instructional Design ..... 4 IPT 560 Human Performance Technology 4	24
Thesis Option Electives ..... 6 IPT 593 Thesis (Oral defense required) ..... 6 (At least one semester of residence on campus required.) **OR** **Portfolio Option** Electives ..... 11 IPT 592 Portfolio (Oral defense required) 1	12
Total	**36**

Residency Requirement for Thesis Option
In order to complete the thesis option, students are required to be in residence on campus for at least one semester during which they are enrolled in IPT 593 Thesis. Petitions for exceptions should be made to the IPT Program Committee.

Graduate Certificate in Human Performance Technology

Graduate Program Coordinator: Donald Stepich
Engineering Building, Room 327, Mail Stop 2070
Telephone (208) 426-1312
http://ipt.boisestate.edu
e-mail: dstepich@boisestate.edu

Certificate Requirements

Graduate Certificate in Human Performance Technology	
Course Number and Title	Credits
IPT 529 Needs Assessment	4
IPT 530 Evaluation Methodology	4
IPT 536 Foundations of Instructional and Performance Technology	4
IPT 560 Human Performance Technology	4
Total	**16**

Graduate Certificate in Workplace E-Learning and Performance Support

Graduate Program Coordinator: Donald Stepich
Engineering Building, Room 327, Mail Stop 2070
Telephone (208) 426-1312
http://ipt.boisestate.edu
e-mail: dstepich@boisestate.edu

Certificate Requirements

Graduate Certificate in Workplace E-Learning and Performance Support	
Course Number and Title	Credits
Core Course IPT 525 E-Learning Principles and Practices	3
Elective Courses Students must complete 12 credits from the electives listed below: IPT 511 Synchronous E-Learning in the Workplace....3 IPT 523 Rapid E-Learning Development....3 IPT 550 Blended Learning for Performance Improvement....3 IPT 551 E-Learning Content Design....3 IPT 561 Human Factors Engineering....3 IPT 563 Job Aids and Electronic Performance Support....3 IPT 584 Selected Topics: Applications of Web Technologies....3	12
Total	**15**

Graduate Certificate in Workplace Instructional Design

Graduate Program Coordinator: Donald Stepich
Engineering Building, Room 327, Mail Stop 2070
Telephone (208) 426-1312
http://ipt.boisestate.edu
e-mail: dstepich@boisestate.edu

Certificate Requirements

Graduate Certificate in Workplace Instructional Design	
Course Number and Title	Credits
Core Course	
IPT 535 Principles of Adult Learning	4
IPT 536 Foundations of Instructional and Performance Technology	4
IPT 537 Instructional Design	4
IPT 538 Instructional Strategies	3
IPT 547 Advanced Instructional Design for the Workplace	3
Total	**18**

Course Offerings

See page 52 for a definition of course numbering and terminology.

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 511 SYNCHRONOUS E-LEARNING IN THE WORKPLACE (3-0-3)(S). Examine principles and techniques for developing and implementing synchronous web-based e-learning strategies to improve performance in the workplace.

IPT 523 RAPID E-LEARNING DEVELOPMENT (3-0-3)(SU)(Odd years). Through hands-on practice, students develop skills in using rapid e-learning development software to create interactive multimedia e-learning content for improving workplace learning and performance. Students develop various types of e-learning content such as demonstration, technical simulation, and scenario-based learning.

IPT 525 E-LEARNING PRINCIPLES AND PRACTICES (3-0-3)(S). 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 547 ADVANCED INSTRUCTIONAL DESIGN FOR THE WORKPLACE (3-0-3)(S). Students engage in authentic instructional design activities with real clients as part of a community of practice. Activities include analyzing instructional design problems, creating real instructional design products, working within diverse teams, and giving and receiving constructive feedback. PREREQ: IPT 537.

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 E-LEARNING CONTENT DESIGN (3-0-3)(F). Students learn to apply the principles of instructional design to the design of interactive, multimedia, self-paced content within the context of workplace e-learning and performance support. 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 576 ORGANIZATIONAL CULTURE AND ALIGNMENT (3-0-3)(SU). Students will learn how to analyze the culture within an organization from a variety of perspectives and assess the alignment between a proposed IPT intervention and that culture.

IPT 577 CHANGE MANAGEMENT (3-0-3)(SU). Students will learn basic principles related to the top-down and bottom-up change processes, and analytical and planning tools that can be used to facilitate change within an organization. Students will practice applying those principles and tools in real organizational situations.

IPT 578 DESIGNING SUSTAINABLE ORGANIZATIONS (3-0-3)(SU). Students will learn basic principles related to helping organizations plan, implement, and evaluate business practices that are environmentally, socially, and financially balanced. The course combines principles of design, systems thinking, change management, and evaluation.

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 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, Elton Graugnard, Will Hughes, William Knowlton, Wan Kuang, Paul Lindquist, Maria Mitkova, Amy Moll, Peter Müllner, Rick Ubic, John Youngsman, Bernard Yurke

Physics Graduate Faculty: Charles Hanna, Byung-Il Kim, Alex Punnoose, Pushpa Raghani, Dmitri Tenne

Chemistry and Biochemistry Graduate Faculty: Eric Brown, Henry Charlier, Jeunghoon Lee, Owen McDougal, Dale Russell, Martin Schimpf, Don Warner

Biological Sciences Graduate Faculty: Julia Thom Oxford

Engineering Adjunct Graduate Faculty: Robert Pond

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. 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.

(See the Interdisciplinary Programs section for program descriptions and course offerings.)

Department of Mechanical and Biomedical Engineering

Chair: James R. Ferguson
Engineering 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 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 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.

Master of Science in Mechanical Engineering	
Course Number and Title	Credits
Graduate ME Courses Graduate courses in mechanical engineering; all courses to be selected with student input and approved by the supervisory committee.	15-24
Other Graduate Courses Graduate courses in mechanical engineering or a related field; all courses to be selected with student input and approved by the supervisory committee.	0-9
Thesis ME 593 Thesis (P/F)	6
Total	**30**

Master of Engineering in Mechanical Engineering

Graduate Program Coordinator: Steve Tennyson
Engineering 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.

Master of Engineering in Mechanical Engineering	
Course Number and Title	Credits
Graduate ME Courses Graduate courses in mechanical engineering; all courses to be selected with student input and approved by the supervisory committee.	18-30
Other Graduate Courses Graduate courses in mechanical engineering or a related field; all courses to be selected with student input and approved by the supervisory committee.	0-12
Comprehensive Examination ME 600 Assessment [Comprehensive Examination] (P/F)	1
Total	**31**

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

See page 52 for a definition of course numbering and terminology.

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 320 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.

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 520 (KINES 520) ADVANCED BIOMECHANICS (3-0-3)(F). Mechanical principles and analytical methods used in traditional and contemporary biomechanics. Topics include functional anatomy, joint kinematics, inverse dynamics, mechanical properties of biological materials, and modeling of the musculoskeletal system. May be taken for KINES or ME credit, but not both. PREREQ: ENGR 220 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 525 (KINES 525) LABORATORY TECHNIQUES IN BIOMECHANICS (3-0-3)(S). An introduction to the analysis techniques used to study the mechanics of human motion. Topics include cinematography, videography, force transducers, electromyography and computer analysis techniques. May be taken for KINES credit or ME credit, but not both. PREREQ: KINES 520/ME 520 or PERM/INST.

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 240, 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 MATH 275.

ME 532 ACOUSTICS (3-0-3)(F/S). Basic theories of acoustics, wave equations, acoustic response, sound generation, transmission, and attenuation. Measurement techniques and nomenclature. PREREQ: ENGR 330 and MATH 333.

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 275 and MATH 333.

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 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 550 ADVANCED MECHANICS OF MATERIALS (3-0-3)(F/S). Extension of stress-strain concepts to three-dimensions, plate and shell analysis, failure theories, and fatigue. Analysis and visualization techniques include Finite Element Analysis and photoelasticity. PREREQ: ENGR 350.

ME 554 COMPOSITES (3-0-3)(F/S). Mechanics of composite materials. Solid mechanics principles used to analyze layered composites, long and short fiber composites, and woven composites. Finite Element Analysis reinforces content. PREREQ: ENGR 350 and MATH 275.

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 sills prior to taking ME 480. PREREQ: ME 320.

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 570 FINITE ELEMENT METHODS (3-0-3)(F/S). Theoretical development of finite element methods, solution algorithm formulation, and problem solving in stress analysis, heat transfer, and fluid flow. PREREQ: ENGR 220, ENGR 350, structured programming, and senior standing.

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, MIMO and SIMO, 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 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 relationships among design variables. Single and multi-variable optimization algorithms using linear and nonlinear programming methods to design problems in structures, machine components, and energy systems. PREREQ: MATH 275, PHYS 211, and PHYS 211L.

ME 584 ROBUST DESIGN (3-0-3)(F/S). Statistics and probability applied to the design of products and processes. Stochastic modeling and analysis of mechanical systems. Product reliability, series and parallel systems reliability, structural reliability, Taguchi methods, failure modes and effects analysis, and Monte Carlo simulation. PREREQ: ME 320.

ME 585 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.

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: PERM/INST.

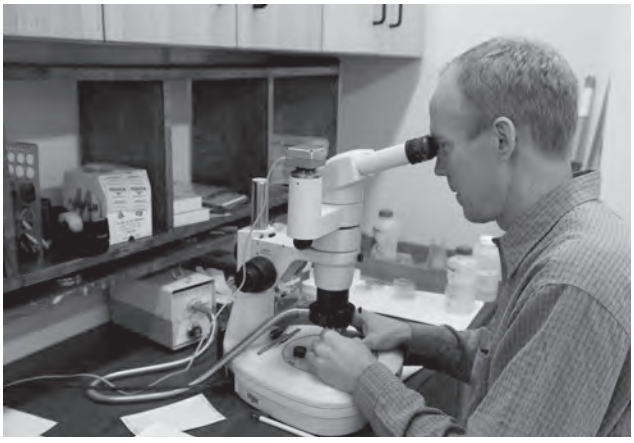
ME 588 DESIGN FOR MANUFACTURE AND ASSEMBLY (3-0-3)(F/S). Development and application of design methods for cost-effective and timely product manufacture and assembly. Concept, configuration, and parametric product design refinements evaluated with respect to alternative manufacturing and assembly processes. Case studies and design projects. PREREQ: ME 240, ME 280, ENGR 350.

Refer to the *University-wide Graduate Courses* section in this catalog for additional course offerings.

College of Health Sciences

Dean: Tim Dunnagan
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, Evaluation and 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

Department of Community and Environmental Health

Chair: Sarah E Toevs
Health Science Riverside, Room 101, Mail Stop 1835
Telephone (208) 426-3929
FAX (208) 426-2199
http://hs.boisestate.edu/MHS

Graduate Faculty: Jeffrey Anderson, Edward Baker, Patricia Elison-Bowers, Susan Esp, James Girvan, Elizabeth Hannah,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, David Schmitz, Terry Spear, Leslie Ann Tengelsen, Stephen West

Emeritus Graduate Faculty: Rudy Andersen, Conrad Colby, Elaine Long, Lee Stokes

Graduate Degrees Offered

- Master of Health Science, Environmental Health
- Master of Health Science, Evaluation and Research
- Master of Health Science, Health Policy
- Master of Health Science, Health Promotion
- Master of Health Science, Health Services Leadership
- 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) 426-2425
FAX (208) 426-2199
http://hs.boisestate.edu/MHS
e-mail: tmcdonal@boisestate.edu

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 18-21credits of required area of concentration courses, and a thesis, project, or elective courses. The expectation of the program is that students earn grades of B or better in their coursework. A student may receive one grade less than B (i.e., a B- or below) in a course, however, at the time he or she will be placed on academic probation in the program. A grade of less than B in any future course will result in that student being dismissed from the program. Retaking a class in which a student earned a grade of less than a B will not remove a student from academic probation or lead to reinstatement in the program. 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, Graduate Core	
Course Number and Title	Credits
MHLTHSCI 505 Health Science Research Methods	3
MHLTHSCI 520 Health Care Systems Organization and Administration	2
MHLTHSCI 535 Ethics and Health Policy	2
MHLTHSCI 552 (KINES 552) Applied Statistical Methods	3
*MHLTHSCI 555 Program Evaluation in the Health Sciences	3
**MHLTHSCI 579 Managerial Epidemiology	3
MHLTHSCI 600 Assessment [Capstone Course]	2
*Prerequisites include MHLTHSCI 505 **Prerequisites include introductory course in epidemiology and MHLTHSCI 552 or equivalent.	
Total	**18**

Master of Health Science, Environmental Health	
Course Number and Title	Credits
MHS Graduate Core	18
Select 9 credits from the following: MHLTHSCI 510 Advanced Environmental Health....3 MHLTHSCI 560 Public Health Disaster Preparedness Planning: Risk Management....3 MHLTHSCI 570 (KINES 570) Health Promotion....3 PUBADM 541 Environmental Regulatory Policy and Administration....3 PUBADM 542 Science, Democracy and Environment....3	9
In addition, students need one 3 credit elective course and 6 credits of thesis or project or 12 credits of additional electives.	9-12
Total	**36-39**
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, Evaluation and Research	
Course Number and Title	Credits
MHS Graduate Core	18
IPT 532 Ethnographic Research in Organizations **OR** SOC 502 Qualitative Social Research Methods....3 MHLTHSCI 572 (KINES 572) Grant Writing....3 MHLTHSCI 580 Selected Topics in Research....3	9
Select 3 credits from the following: IPT 529 Needs Assessment....3 MHLTHSCI 550 Current Issues in Health Policy....3 MHLTHSCI 570 (KINES 570) Health Promotion....3 SOC 500 Advanced Social Statistics....3	3
MHLTHSCI 593 Thesis	6
Total	**36**

Master of Health Science, Health Policy	
Course Number and Title	Credits
MHS Graduate Core	18
ECON 440G Health Economics....3 PUBADM 500 Administration in the Public Sector....3 PUBADM 501 Public Policy Process....3 PUBADM 502 Organization Theory....3 MHLTHSCI 550 Current Issues in Health Policy....3	15
In addition, students need 4 credits of thesis/project or 6 credits of elective course work.	4-6
Total	**37-39**

Master of Health Science, Health Promotion	
Course Number and Title	Credits
MHS Graduate Core	18
MHLTHSCI 550 Current Issues in Health Policy....3 MHLTHSCI 570 (KINES 570) Health Promotion....3 PSYC 438G Community Psychology....3	9
Select 3 credits from the following: MHLTHSCI 529 Marketing for Health Professionals....3 MHLTHSCI 572 (KINES 572) Grant Writing....3 PSYC 331G The Psychology of Health....3 PUBADM 504 Public Budgeting and Financial Administration....3 SOC 502 Qualitative Social Research Methods....3	3
In addition, students need 6 credits of thesis/project or 9 credits of elective course work.	6-9
Total	**36-39**

Master of Health Science, Health Services Leadership	
Course Number and Title	Credits
MHS Graduate Core	18
DISPUT 501 Human Factors in Conflict Management....1 DISPUT 502 Negotiation Theory and Practice....1 DISPUT 503 Conflict Intervention Methods....1 ECON 440G Health Economics....3 MHLTHSCI 522 Management for Health Professionals....3 MHLTHSCI 525 Leadership for Health Professionals....3	12
In addition, students need 6 credits of thesis/project or 9 credits of elective course work.	6-9
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) 426-2425
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 be 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 allowed to enroll in the certificate program 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.

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. The program leading to the Graduate Certificate in Health Services Leadership is of primary relevance to students interested in the following occupation (Standard Occupational Classification code in parentheses): Medical and Health Services Managers (11-9111). Information on SOC-coded occupations is available at www.bls.gov/soc/major_groups.htm and subsidiary links. The normal time to complete the certificate requirements is 2 years, the tuition and fees for normal time completion are estimated to be $4,704 (part-time status), and the typical cost for books and supplies not included in tuition and fees is estimated to be $800. It is very important that interested students consult the graduate program coordinator for clarification of this information, especially the role of the certificate in preparing individuals for employment in specific occupations.

Graduate Certificate in Health Services Leadership	
Course Number and Title	Credits
DISPUT 501 Human Factors in Conflict Management ..... 1 DISPUT 502 Negotiation Theory and Practice ..... 1 DISPUT 503 Conflict Intervention Methods 1	3
MHLTHSCI 522 Management for Health Professionals ..... 3 MHLTHSCI 525 Leadership for Health Professionals ..... 3 MHLTHSCI 529 Marketing for Health Professionals 3	9
A minimum of three credits from one of the following: ECON 440G Health Economics ..... 3 IPT 536 Foundations of Instructional and Performance Technology ..... 4 MHLTHSCI 550 Current Issues in Health Policy 3	3-4
Total	**15-16**

Course Offerings

See page 52 for a definition of course numbering and terminology.

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

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 380 or HLTHINFO 205 or MATH 254 or PSYC 295 or SOC 310.

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/PROG DIR.

MHLTHSCI 522 MANAGEMENT FOR HEALTH PROFESSIONALS (3-0-3) (F/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/SU). 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/S). 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 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 SKILLS FOR ADDICTION PROFESSIONALS (3-0-3)(F/S). Introduction to evidence-based counseling techniques and interventions used with clients dealing with substance abuse and addiction issues. Presents an overview of common theories/approaches used in chemical dependency counseling along with the techniques and interventions that accompany each. PREREQ: COUN/MHLTHSCI 545 or PERM/INST.

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 (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.

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 KINES or MHLTHSCI credit, but not both.

MHLTHSCI 573 (KINES 573) PHYSICAL ACTIVITY INTERVENTIONS (3-0-3)(F/S). Coverage of the use of individual, interpersonal, and group/community theories and models to design, implement, and evaluate interventions that facilitate increases in physical activity in various populations. Other topics include the influence of setting, activity recommendations, and media on program effectiveness. May be taken for KINES or MHLTHSCI 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.

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 MANAGERIAL EPIDEMIOLOGY (3-0-3)(F/S). Use of epidemiologic research to manage and enhance the delivery of health services and manage health care organizations. Practical applications of epidemiology to health services management including identification of different sources of epidemiologic data, management of population health, financial implications of poor health, health services planning, quality monitoring, policy development and clinical practice improvement. PREREQ: HLTHST 480-480G or MHLTHSCI 501 and MHLTHSCI 552, or PERM/INST.

MHLTHSCI 580 SELECTED TOPICS IN RESEARCH (3-0-3)(F/S/SU). Exploration of research in topical areas of the health sciences and related disciplines.

Refer to the *University-wide Graduate Courses* section in this catalog for additional course offerings.

School of Nursing

Chair: Pamela Springer
Norco Building, Room 433B, Mail Stop 1840
Telephone: (208) 426-4143
FAX: (208) 426-1370
e-mail: nursing@boisestate.edu
http://nursing.boisestate.edu

Graduate Faculty: Jeri Bigbee, Cynthia Clark, Shoni Davis, Margaret Downey, Cecile Evans, Pamela Gehrke, Abigail Gerding, Jane Grassley, Valeda Greenspan, Mary Hereford, Rosemary Macy, Sandra Nadelson, Kathleen Reavy, Vivian Schrader, Pamela Springer, Leonie Sutherland, Dawn Weiler

Adjunct Graduate Faculty: Judy Farnsworth

Emeritus Graduate Faculty: Ingrid Brudenell

Graduate Degrees Offered

- Master of Nursing
- Master of Science in Nursing

General Information

The School 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 focused on nursing of populations. 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 April 30. 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 School of Nursing. The following requirements must be met:

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, undergraduate statistics with a C or higher;
5. Submission of a School of Nursing Graduate Program application with a non-refundable application fee to the School of Nursing by April 30;
6. Submission of 2 reference forms from current employer or prior nursing faculty;
7. Submission of written statement following current guidelines. (Guidelines can be found on the Nursing website http://nursing.boisestate.edu/programs/forms/Writing_Instructions.pdf).

Applicants should obtain current requirements from the School of Nursing or its website http://nursing.boisestate.edu/programs/graduate.html.

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 Nursing

Graduate Program Coordinator: Abigail A. Gerding
Program Information: Marian Graham
Norco Building, Room 416, Mail Stop 1840
Telephone: (208) 426-3789
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 Nursing	
Course Number and Title	Credits
MHLTHSCI 552 Applied Statistical Methods **OR** KINES 552 Applied Statistical Methods ..... 3 MHLTHSCI 579 Managerial Epidemiology 3	6
Graduate Nursing Courses NURS 502 Foundation of Knowledge and Theory for Advanced Nursing ..... 3 NURS 504 Health Care Economics, Finance and Delivery... 3 NURS 508 Advanced Research and Scholarly Inquiry for Nursing ..... 3 NURS 512 Advanced Nursing Leadership in Health Care ..... 2 NURS 520 Professional Role Development for Advanced Nursing in Population Health I..... 1 NURS 522 Concepts of Population Health..... 3 NURS 524 Population Health Assessment and Planning ..... 3 NURS 525 Population Health Assessment and Planning Laboratory..... 2 NURS 526 Population Health Intervention and Evaluation ... 2 NURS 527 Population Health Intervention and Evaluation Laboratory..... 2 NURS 528 Professional Role Development for Advanced Nursing in Population Health II ..... 1 NURS 591 Project 6	30
Elective Course	3
Total	**39**

Master of Science in Nursing

Graduate Program Coordinator: Abigail A. Gerding
Program Information: Marian Graham
Norco Building, Room 416, Mail Stop 1840
Telephone: (208) 426-3789
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 Managerial Epidemiology ... 3	6
Graduate Nursing Courses NURS 502 Foundation of Knowledge and Theory for Advanced Nursing ... 3 NURS 504 Health Care Economics, Finance and Delivery ... 3 NURS 508 Advanced Research and Scholarly Inquiry for Nursing ... 3 NURS 512 Advanced Nursing Leadership in Health Care ... 2 NURS 520 Professional Role Development for Advanced Nursing in Population Health I ... 1 NURS 522 Concepts of Population Health ... 3 NURS 524 Population Health Assessment and Planning ... 2 NURS 525 Population Health Assessment and Planning Laboratory ... 2 NURS 526 Population Health Intervention and Evaluation ... 2 NURS 527 Population Health Intervention and Evaluation Laboratory ... 2 NURS 528 Professional Role Development for Advanced Nursing in Population Health II ... 1 NURS 593 Thesis ... 6	30
Elective Course	3
Total	**39**

Course Offerings

See page 52 for a definition of course numbering and terminology.

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 552 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 524 POPULATION HEALTH ASSESSMENT AND PLANNING (2-0-2)(F/S). Integrates assessment and planning with theoretical frameworks for health promotion and disease prevention with a specific population. PREREQ: NURS 502, NURS 520, NURS 522. COREQ: NURS 525.

NURS 525 POPULATION HEALTH ASSESSMENT AND PLANNING LABORATORY (0-6-2)(F/S). Application of assessment and planning with theoretical frameworks for health promotion and disease prevention with a specific population. PREREQ: NURS 502, NURS 520, NURS 522. PRE/COREQ: NURS 524.

NURS 526 POPULATION HEALTH INTERVENTION AND EVALUATION (2-0-2)(F/S). Integrates theoretical frameworks with evaluation of evidence-based interventions and outcomes for health promotion and disease prevention with a specific population. PREREQ: NURS 524. COREQ NURS 527.

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.

Refer to the *University-wide Graduate Courses* section in this catalog for additional course offerings.

College of Social Sciences and Public Affairs

Dean: Melissa Lavitt
Education Building, Room 722, Mail Stop 1900
Telephone (208) 426-1368
FAX (208) 426-4318
http://sspa.boisestate.edu

Associate Dean: L. Shelton Woods
Telephone (208) 426-1368

General Information

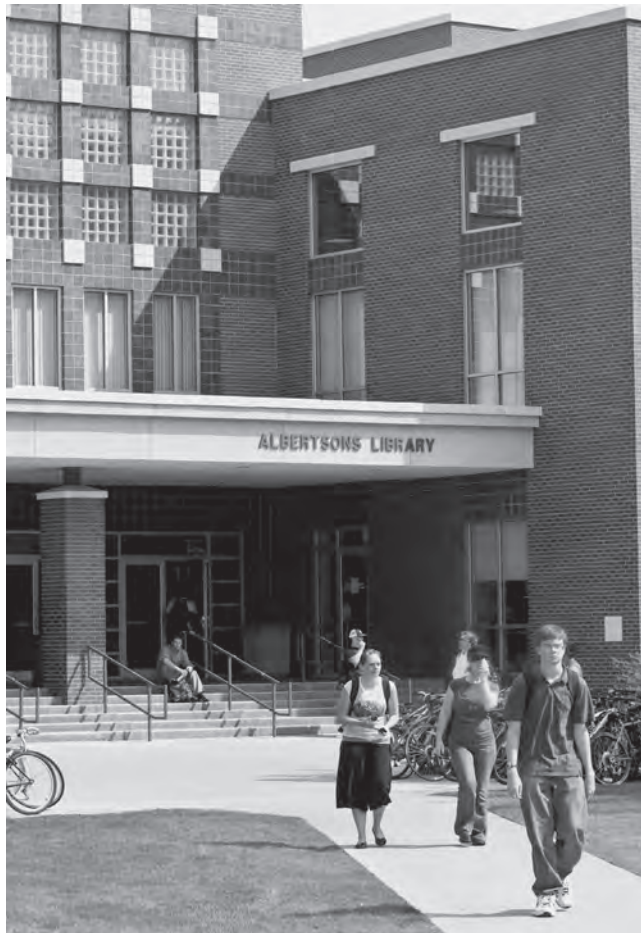
The mission of the College of Social Sciences and Public Affairs (SSPA) includes the following:

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 Family Studies
- 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://sspa.boisestate.edu/anthropology/
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://sspa.boisestate.edu/anthropology/
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.

Master of Arts in Anthropology	
Course Number and Title	Credits
Core Sequence ANTH 501 Adaptation and Human Behavior ..... 3 ANTH 502 Human Evolutionary History & Development .... 3 ANTH 503 History and Theory in Anthropology..... 3 ANTH 504 Statistical Methods in Anthropology ..... 3 With the approval of the supervisory committee, a student may substitute a comparable 3-credit course for ANTH 504.	12
Elective Courses 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.	12
Preliminary Examination ANTH 600 Assessment [Preliminary Examination] 1	1
Culminating Activity ANTH 593 Thesis (minimum requirement)..... 6	6
Total	**31**

Master of Applied Anthropology

Graduate Program Coordinator: Mark Plew
Hemingway Western Studies Center, Room 55, Mail Stop 1950
Telephone (208) 426-3023
FAX (208) 426-4329
http://sspa.boisestate.edu/anthropology/
e-mail: fbrigha@boisestate.edu

Degree Requirements

Masters of Applied Anthropology. Students must complete at least 34 credits distributed as shown in the degree requirements table. 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.

Master of Applied Anthropology	
Course Number and Title	Credits
Core Sequence ANTH 501 Adaptation and Human Behavior ..... 3 ANTH 502 Human Evolutionary History and Development . 3 ANTH 503 History and Theory in Anthropology ..... 3 ANTH 504 Statistical Methods in Anthropology ..... 3 With the approval of the supervisory committee, a student may substitute a comparable 3-credit course for ANTH 504.	12
Elective Courses Electives must be approved by the supervisory committee. Application of independent study and practicum/internship is limited to 6 credits (combined). Application of non-ANTH courses is limited to 6 credits.	15
Preliminary Examination ANTH 600 Assessment [Preliminary Examination] 1	1
Culminating Activity ANTH 591 Project (minimum requirement) 6	6
Total	**34**

Course Offerings

See page 52 for a definition of course numbering and terminology.

ANTH—ANTHROPOLOGY

ANTH 501 ADAPTATION AND HUMAN BEHAVIOR (3-0-3)(F). Theories and methods used to address questions related to the proximate (structure of adaptations) and ultimate (adaptive significance) causes of human behavior. Processes occurring on generational and evolutionary time scales with emphasis on procurement, mating, parenting, social exchange and distribution, demographic transition, human universals, and cultural diversity.

ANTH 502 HUMAN EVOLUTIONARY HISTORY AND DEVELOPMENT (3-0-3)(F). Theories and methods used to address questions related to the ontogenetic (developmental) and phylogenetic (evolutionary) history of humans. Evolutionary time scales with an emphasis on variation within and between human populations and other primates over time, and the interaction of human populations to environmental stress.

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 STATISTICAL METHODS IN ANTHROPOLOGY (3-0-3)(S). Concepts, methods and models used in analysis of anthropological data. Measures of correlation and central tendency, of probability and analysis of variance. Analysis of anthropological, archaeological and biological data sets. PREREQ: PERM/INST.

ANTH 513 RESEARCH DESIGN IN ANTHROPOLOGY (3-0-3) (F). Design a research project, write a proposal, and initiate search for funding. Familiarization with topics useful for developing a career in anthropology, such as approaching funding institutions, publishers and employers, and participating in professional organizations.

ANTH 520 ADVANCED GEOARCHAEOLOGY AND QUATERNARY ENVIRONMENTS (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. PREREQ: PERM/INST.

ANTH 521 HUMAN PALEOECOLOGY OF NORTH AMERICA (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. PREREQ: PERM/INST.

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, and life-history evolution, marriage, reproduction, inheritance, and subsistence. The course provides a broad, empirical view of hominid-behavioral evolution and ecology. PREREQ: PERM/INST.

ANTH 531 ECONOMIC ANTHROPOLOGY (3-0-3)(F/S)(Alternate years). The comparative study of economic behavior in hunter-gatherer, tribal, and complex societies. The course examines subsistence strategies, craft production and specialization, and exchange, as well as theoretical debates surrounding the economic topic of transition.

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 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.)

Refer to the *University-wide Graduate Courses* section in this catalog for additional course offerings.

Department of Communication

Chair: Rick Moore
Communication Building, Room 100, Mail Stop 1920
Telephone (208) 426-3320
http://sspa.boisestate.edu/communication/

Graduate Faculty: Dawhwan Cho, Mary Frances Casper, Robert Hall, Julie Lane, Peter Lutze, John McClellan, Ed McLuskie, Rick Moore, Marty Most, Natalie Nelson-Marsh, Heidi Reeder, Robert Rudd, Laurel Traynowicz, Peter Wollheim

Adjunct Graduate Faculty: erin mcclellan

Master of Arts in Communication

Graduate Program Coordinator: Natalie Nelson-Marsh
Communication Building, Room 103, Mail Stop 1920
Telephone (208) 426-2258
e-mail: natalienelsonmarsh@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), copy of original scholarly paper, and three letters of recommendation from academic faculty. Students also must provide their Graduate Record Exam (GRE) scores. 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. For regular admission, applicants must have completed an undergraduate social sciences research methods course and a communication theory course. 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

Master of Arts in Communication	
Course Number and Title	Credits
Core Sequence COMM 501 Communication Research and Writings....3 COMM 505 Theory and Philosophy of Communication....3 COMM 598 Seminar....1	7
Elective Courses Choose from the following courses to total 12-18 credits COMM 506 Interpersonal Communication....3 COMM 507 Organizational Communication....3 COMM 508 Media Theory and Practice....3 COMM 509 Legal and Ethical Aspects of Communication....3 COMM 510 Community, Communication and Politics....3 COMM 511 Critical Theory....3 COMM 512 Culture and Communication....3 COMM 513 Public Relations....3 COMM 514 Media Writing....3 COMM 580 Selected Topics: Advanced Theory and Philosophy....3 COMM 581 Selected Topics: Advanced Research and Writing....3 COMM 582 Selected Topics: Advanced Interpersonal Communication....3 COMM 583 Selected Topics: Advanced Organizational Communication....3 COMM 584 Selected Topics: Advanced Media Theory and Practice....3 COMM 585 Selected Topics: Advanced Culture and Communication....3 COMM 586 Selected Topics: Advanced Studies in Critical Theory....3 COMM 587 Selected Topics: Advanced Studies in Globalization....3 COMM 588 Selected Topics: Advanced Cross-Cultural Communication....3 COMM 589 Selected Topics: Advanced Public Relations....3	12-18
Other Elective Courses Choose from the following courses as necessary to reach the total credit requirement: COMM 590 Practicum/Internship....3-6 COMM 595 Reading and Conference....3-6 COMM 596 Independent Study....3-6	0-6
Culminating Activity COMM 593 Thesis....6	6
Total	**31**

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

See page 52 for a definition of course numbering and terminology.

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.

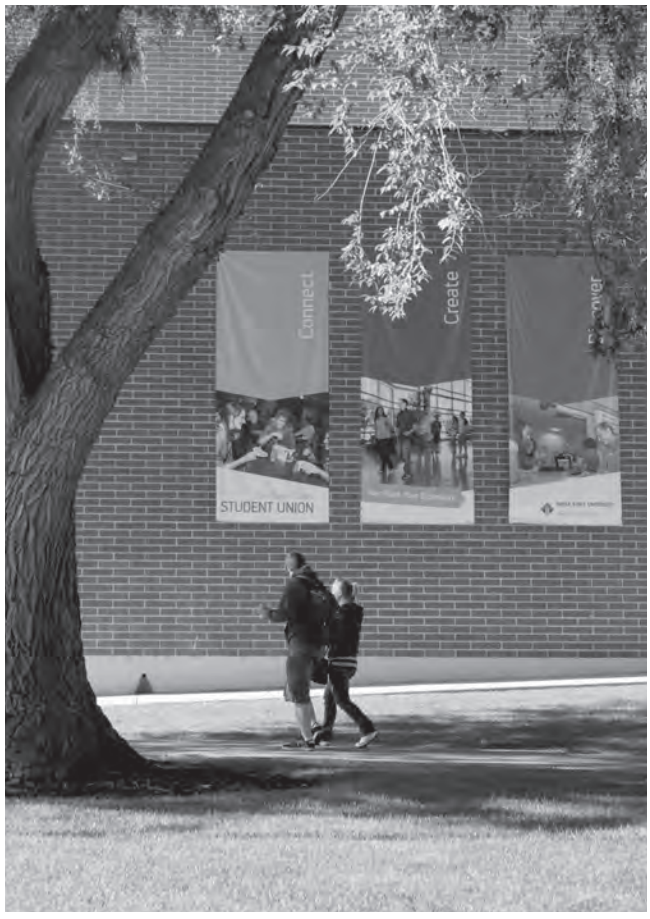
COMM 509 LEGAL AND ETHICAL ASPECTS OF COMMUNICATION (3-0-3)(S). Advanced examination of ethical and legal issues facing practitioners and the public. Topics may include First and Fourth Amendment, the right to privacy, censorship, libel and slander, copyright, and media and national security considerations.

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 (1-4 Variable). To be offered as staff availability permits:

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 598 GRADUATE SEMINAR (1-0-1). A required public forum wherein graduate students and faculty members submit and discuss original research and/or thesis or project proposals. May be repeated once for credit toward degree.

Refer to the *University-wide Graduate Courses* section in this catalog for additional course offerings.

Department of Criminal Justice

Chair: Andrew Giacomazzi
Library Building, Room 166, Mail Stop 1955
Telephone (208) 426-4114
FAX (208) 426-4371
http://sspa.boisestate.edu/criminaljustice/
e-mail: kayrodriguez@boisestate.edu

Graduate Faculty: Jeremy Ball, Lisa Growette Bostaph, Andrew Giacomazzi, Robert Marsh, David Mueller, Anthony Walsh, Ilhong Yun

Adjunct Graduate Faculty: Norma Jaeger

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 research and theory in substantive areas of criminal justice activity and focused scholarship on issues of importance to the field. 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 cumulative 3.0 average is required for admission to graduate study.
2. Successful completion of an undergraduate statistics course.
3. CJ 101 Introduction to Criminal Justice or its equivalent (required for all entering students).
4. Successful completion of an undergraduate theory course.
5. Applicants with less than a 3.0 cumulative GPA may still apply to the program with submission of Graduate Record Exam (GRE) scores of 213 or higher under the new GRE scoring scale.

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 professors or instructors competent to judge the student's likelihood of success in a graduate course of study. 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 unless all of the above materials have been received by the enrollment deadline for each semester. In addition, the admissions process is competitive and no admissions decisions will be made until after the enrollment deadline. Applicants who wish to enroll in the Fall or Summer semester should complete applications by April 1 (October 1 for Spring semester).

Degree Requirements

The requirements for the Foundation Series, Seminar Series, and elective components of the degree are explained in the degree box below. A master's thesis or project must be completed prior to the award of the degree. Oral examinations are required for both the proposal and final thesis or project defenses. In addition, proposal and final defenses must occur in separate semesters. Six hours of graduate study will be awarded upon successful completion of the thesis and three for completion of the project. However, the final defense of a thesis or project cannot occur until after the student has successfully completed all Foundation Series courses.

Maintenance of a cumulative 3.0 average is required for both continuation in and graduation from the program.

Master of Arts in Criminal Justice	
Course Number and Title	Credits
Foundation Series The following core courses are required of all students. It is recommended that these courses be taken prior to other graduate work. CJ 501 Crime and Criminal Justice ..... 3 CJ 502 Organization and Management of Criminal Justice ..... 3 CJ 503 Criminal Justice Research ..... 3 CJ 504 Statistics for Criminal Justice ..... 3 CJ 506 Theories of Crime 3	15
Seminar Series 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. CJ 505 Law and Social Control ..... 3 CJ 507 Issues in Contemporary Policing ..... 3 CJ 508 The Legal Process ..... 3 CJ 509 Juvenile Justice ..... 3 CJ 510 Punishment and Corrections ..... 3 CJ 511 Community Corrections ..... 3 CJ 512 Gender and Justice 3	9

— continued —

Master of Arts in Criminal Justice (continued)	
Electives Electives may be taken anywhere in the university but must be approved by the student's graduate committee and the CJ graduate coordinator. The student must demonstrate, to the committee's satisfaction, how the electives are to fit into the student's program of study and career objectives. Boise State graduates with any listed course in undergraduate work which applied to the undergraduate degree may not apply that course to the graduate degree.	3-6
Thesis or Project Option CJ 591 Project.....3 CJ 593 Thesis 6	3-6
Total	**33**

Course Offerings

See page 52 for a definition of course numbering and terminology.

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 504 STATISTICS FOR CRIMINAL JUSTICE (3-0-3)(S). Statistical analysis. Univariate and introductory multivariate techniques. Use of computerized statistical packages in the social and behavioral sciences. Statistical problem-solving using various data-sources. PREREQ: CJ 503 and undergraduate statistics.

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 those 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.

Refer to the *University-wide Graduate Courses* section in this catalog for additional course offerings.

Department of History

Chair: Nicholas Miller
Library Building, Room 192, Mail Stop 1925
Telephone (208) 426-2129
FAX (208) 426-4058
http://sspa.boisestate.edu/history/
e-mail: historygradbsu@boisestate.edu

Graduate Faculty: Barton Barbour, John Bieter, Lisa Brady, Peter Buhler, Jill Gill, Errol Jones, Joanne Klein, Lynn Lubamersky, Leslie Madsen-Brooks, Lisa McClain, Nicholas Miller, Charles Odahl, Sandra Schackel, Todd Shallat, L. Shelton Woods, Michael Zirinsky

Adjunct Graduate Faculty: Chandra Silva, 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://sspa.boisestate.edu/history/). 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 until an initial advisor is assigned. The student will establish a supervisory committee as soon as possible, normally during the first semester enrolled. The committee chair will serve as the student's permanent 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 in history and 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 research historians 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

Master of Arts in History	
Course Number and Title	Credits
HIST 500 The Nature of History	3
HIST 501 The Study of History	3
Approved History Electives ..... 21 **OR** Approved History Electives ..... 12 Approved Electives Outside of History..... 9	21
HIST 593 Thesis	6
Total	**33**
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

Master of Applied Historical Research	
Course Number and Title	Credits
HIST 500 The Nature of History	3
HIST 501 The Study of History	3
HIST 502 Topics in Applied Historical Research	3
Approved History Electives ..... 18 **OR** Approved History electives .....6-18 Approved internships and/or non-history electives.....0-12	18
HIST 591 Project	6
Total	**33**
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

See page 52 for a definition of course numbering and terminology.

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 use and abuse of history in nonacademic settings. Potential topics include 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. Emphases 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. Emphases 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. Emphases 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 585 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. Emphases 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 Psychology

Chair: Patt Elison-Bowers
Education Building, Room 629 Mail Stop 1715
Telephone (208) 426-1207
FAX (208) 426-4386
http://sspa.boisestate.edu/psychology/
e-mail: pjohnso@boisestate.edu

Graduate Faculty: Patt Ellison-Bowers, Elizabeth Morgan

Graduate Degree Offered

- Graduate Certificate in Family Studies

General Information

The Graduate Certificate in Family Studies housed in the Department of Psychology is intended for recent graduates, students enrolled in any graduate degree program, and for working professionals. The program includes courses from psychology and other social sciences and public affairs departments in order to gain in-depth understanding of the connection between human development, family life and the broader social context. The goal of the certificate program is to prepare students for a variety of positions working with children and their families.

Application and Admission Requirements

Admission to the Graduate College is a prerequisite to admission to the Graduate Certificate in Family Studies Program. Applicants admitted to the Graduate College who wish to apply to the Graduate Certificate in Family Studies Program must possess a baccalaureate degree from an accredited institution and have demonstrated satisfactory academic competency by having achieved a cumulative undergraduate GPA of at least 3.00 on a 4.00 scale. 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/CV, letters of reference, and statement of purpose.

A prospective student should follow the general application procedures for graduate degree-seeking students (see Applying as a Degree-Seeking Student in the Graduate Admission Regulations section of this catalog). In addition, an applicant must submit the following documents to the Director of the Graduate Certificate in Family Studies Program: complete post-secondary transcripts; a resume or CV; a statement of purpose in which the student explains her/his motivation for pursuing a Graduate Certificate in Family Studies and describes her/his career interests; and 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.)

Once the applicant's file is complete, the Director of the Family Studies Graduate Certificate Program will evaluate the materials. Admission recommendations will be forwarded to the Chair of the Psychology Department. Admission to the Graduate Certificate in Family Studies Program does not guarantee subsequent admission to any other certificate or graduate degree 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 a Graduate Certificate and Degree Program) in this catalog.

Graduate Certificate in Family Studies

Director: Elizabeth Morgan
Education Building, Room 622 Mail Stop 1715
Telephone (208) 426-2410
e-mail: emorgan@boisestate.edu

Certificate Requirements

A minimum of 17 credits are required for the completion of the Graduate Certificate in Family Studies. The curriculum is comprised of 11 credit hours of required course work and 6 additional credits of elective courses. Students who wish to enroll in courses other than those specified may do so by permission of Director. Course prerequisites or permission of the instructor must also be met. Students must maintain a minimum 3.0 GPA in all certification course work.

Graduate Certificate in Family Studies	
Course Number and Title	Credits
Required Courses: COMM 506 Interpersonal Communication **OR** PSYC 595 Reading and Conference ... 3 COUN 511 Family Systems ... 3 PSYC 512 Lifespan Human Development ... 3 PSYC 514 Diversity in Family Systems ... 2	11
One course from the following approved elective courses: ANTH 425 Medical Anthropology: Disease, Culture, and Healing ... 3 HIST 323 The History of Marriage and the Family in Europe ... 3 POLS/SOC 487 Organizational Theory and Bureaucratic Structure ... 3 PSYC 438G Community Psychology ... 3	3
One course from the following approved elective courses: CJ 501 Crime and Criminal Justice ... 3 CJ 509 Seminar: Juvenile Justice ... 3 CJ 512 Seminar: Gender and Justice ... 3 PSYC 594 Conference or Workshop (in Family Studies) ... (varies) PSYC 597 Special Topics (in Family Studies) ... (varies) PUBADM 500 Administration in the Public Sector ... 3 PUBADM 532 Grant Writing ... 3 PUBADM 571 Ethics in the Public Sector ... 3	3
Total	**17**

Course Offerings

See page 52 for a definition of course numbering and terminology.

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)(F,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.

PSYC 512 LIFESPAN HUMAN DEVELOPMENT (3-0-3)(F). Examines both typical and atypical development across the lifespan using an ecological systems perspective. Topics include the mutual influences and contexts of biology, personality, cognitions, social relationships and culture on a variety of age-related issues. PREREQ: Admission to Family Studies Program or PERM/INST.

PSYC 514 DIVERSITY IN FAMILY SYSTEMS (2-0-2)(S/SU). Explores attitudes toward human diversity and includes the acquisition of skills necessary to work sensitively with individuals and groups who are subjected to prejudice and discrimination based on race, ethnicity, gender, sexual orientation, socioeconomic status. Topics include experiences of people of oppressed groups and sociohistorical roots of biases. PREREQ: Admission to Family Studies Program or PERM/INST.

Department of Public Policy and Administration

Chair: Greg Hill
Environmental Research Building, Room 1145, Mail Stop 1935
Telephone (208) 426-1476
FAX (208) 426-4370
http://sspa.boisestate.edu/publicpolicy/

Graduate Faculty: Les Alm, Ross Burkhart, Elizabeth Fredericksen, John Freemuth, Greg Hill, Richard Kinney, Susan Mason, Suzanne McCorkle, Gary Moncrief, Greg Raymond, David Solan, Stephanie Witt

Adjunct Graduate Faculty: JoAnn Butler, Diane Kushlan, Janet Mills, Cathy Silak, James Weatherby, 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

Director: Susan Mason
Environmental Research Building, Room 1139, 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) is 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 Resource Planning and Policy 2) Land Use and Transportation Planning 3) Economic Development Planning and Analysis 4) Housing, Social and Community Development Planning.

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 for GREs taken before August 1, 2011. The minimum combined verbal and quantitative score for GREs taken on or after August 1, 2011 is 300. 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, 1910 University Drive, Boise, ID 83725-1935.
6. Submit the MCRP online application which is available on our webpage, and a formal statement 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. Not all CRP classes are open to non-admitted MCRP students.

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 Resource Planning and Policy 2) Land Use and Transportation Planning 3) Economic Development Planning and Analysis 4) Housing, Social and Community Development Planning. The degree requires 42 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.)

Master of Community and Regional Planning	
Course Number and Title	Credits
MCRP students must successfully complete 48 credit hours of approved MCRP course work. Twenty-one semester credit hours are in planning and methods core courses. Twenty-one additional semester credit hours are in the student's area of emphasis and the electives requirement. Additionally, students complete 3 credits of internship and a 3 credit hour capstone experience.	
Course Selection Selection of courses is to be made in consultation with the student's academic advisor.	
Planning Core Requirements 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. CRP 500 History and Theory of Planning ..... 3 CRP 501 (PUBADM 520) Introduction to Community and Regional Planning..... 3 CRP 502 Economic Applications to Community and Regional Planning..... 3 CRP 503 Plan Making and Implementation 3	12
Methods Core Sequence 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. Required CRP 504 (PUBADM 524) Introduction to Policy Formation-Geographic Information Systems (GIS) **OR** GEOG 560 Introduction to Geographic Information Systems ..... 3 CRP 505 Community Data ..... 3 Choose one CE 537 GIS in Water Resources..... 3 CRP 510 GIS Applications and Visualization Techniques in Planning..... 3 CRP 511 Qualitative Methods..... 3 CRP 512 Quantitative Methods..... 3 GEOG 561 Remote Sensing and Image Processing ..... 3 GEOG 562 Geographic Information Analysis ..... 3 GEOG 563 Geospatial Project..... 3	9

— continued —

Master of Community and Regional Planning (continued)	
Area of Emphasis Requirements An area of emphasis is a concentration in the program that provides the student with a field of specialization. Each student is required to complete 12 credit hours drawn from one of the four areas of emphasis. Selected Topics courses will be offered to supplement areas of emphasis.	12
1. Environmental and Natural Resource Planning and Policy	
Required	
PUBADM 541 Environmental and Regulatory Policy and Administration ... 3	
Choose three	
CE 522 Hazardous Waste Engineering ... 3	
CRP 551 Sustainable Development ... 3	
MHLTHSCI 510 Advanced Environmental Health ... 3	
PUBADM 540 Contemporary Issues in Natural Resource and Environmental Policy and Administration ... 3	
PUBADM 543 Public Land and Resource Policy and Administration ... 3	
2. Land Use and Transportation Planning	
Required	
CRP 520 Introduction to Land Use and Transportation Problems and Policy ... 3	
Choose three	
CE 572 Transportation Planning ... 3	
CE 575 Traffic Engineering ... 3	
CMGT 570 Land Development ... 3	
CRP 521 Economics of Transportation Planning ... 3	
CRP 523 (PUBADM 523) Planning and Zoning ... 3	
CRP 533 Public Finance for Planners ... 3	
CRP 540 Housing Policy and Community Development ... 3	
CRP 541 Community Design and Site Planning ... 3	
CRP 551 Sustainable Development ... 3	
3. Economic Development Planning and Analysis	
Required	
CRP 530 State, Regional and Community Economic Development ... 3	
Choose three	
CRP 531 Public/Private and Mixed Enterprises Planning ... 3	
CRP 532 Real Estate Development ... 3	
CRP 533 Public Finance for Planners ... 3	
CRP 534 Downtown Revitalization ... 3	
4. Housing, Social, and Community Development Planning	
Required	
CRP 540 Housing Policy and Community Development ... 3	
Choose up to nine credits	
CMGT 570 Land Development ... 3	
CRP 523 (PUBADM 523) Planning and Zoning ... 3	
CRP 530 State, Regional and Community Economic Development ... 3	
CRP 532 Real Estate Development ... 3	
CRP 533 Public Finance for Planners ... 3	
CRP 541 Community Design and Site Planning ... 3	
CRP 551 Sustainable Development ... 3	
DISPUT 502 Negotiation Theory and Practice ... 1	
DISPUT 503 Conflict Intervention Methods ... 1	
DISPUT 504 Facilitating Groups in Conflict ... 1	

— *continued* —

Master of Community and Regional Planning (continued)	
Elective Courses Students must complete 9 elective semester credit hours in addition to their area of emphasis and core requirements. These credits may be taken as courses or as a CRP 696 Directed Research which relates to their area of emphasis. 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, PUBADM 582, and PUBADM 583 can be taken for elective credit only with permission of the CRP program coordinator.	9
CE 512 (GEOS 512) Hydrology: Flow in Geologic Systems ... 3	
CE 516 (GEOPH 516)(GEOS 516) Hydrology ... 3	
CE 526 (GEOS 526) Aqueous Geochemistry ... 3	
CE 564 Seepage, Drainage, Flow Nets and Embankments ... 3	
CRP 522 (PUBADM 522) Planning: Process and Practice ... 3	
CRP 561 Legal Frameworks ... 3	
CRP 581 Environmental and Natural Resources ... 1-3	
CRP 582 Land Use and Transportation ... 1-3	
CRP 583 Economic Development ... 1-3	
CRP 584 Housing, Social, and Community Development ... 1-3	
CRP 585 Practice of Planning ... 1-3	
CRP 586 (PUBADM 586) Community and Regional Planning ... 1-3	
HIST 594 Workshops ... 1-3	
MHLTHSCI 517 Principles of Toxicology ... 2	
MHLTHSCI 542 Hazardous Waste Management ... 2	
MHLTHSCI 560 Public Health Disaster Preparedness Planning – Risk Management ... 3	
PUBADM 501 Public Policy Process ... 3	
PUBADM 560 State and Local Government Policy and Administration ... 3	
PUBADM 581 Natural Resource and Environmental Policy ... 1-3	
PUBADM 582 Public Policy and Policy Analysis ... 1-3	
PUBADM 583 Public Management Skills and Techniques ... 1-3	
Planning Internship CRP 590 Practicum/Internship ... 3	3
Capstone Experience CRP 600 Assessment [Capstone Course] ... 3 This culminating activity is a collaborative problem solving project – planning practicum.	3
Total	**48**

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
Environmental Research Building, Room 1149, 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 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,our faculty are involved in a number of important training and applied research activities that have major statewide impact including the annual Mountain West Municipal Clerks and Treasurers Institute.

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 may be waived for students who have earned a master's degree from an accredited program.

   Note: Students who seek to meet the October 1, 2011 application deadline should have taken the GRE **before** August 1, 2011. The GRE testing service will be changing their scoring processes after that point and the scores for exams taken after August 1, 2011 will not be available to the student or university by the October 1, 2011 deadline. The GRE testing service anticipates that reporting will occur more quickly after the fall 2011 term, but applicants should be aware of possible delays in the reporting of their scores and should plan accordingly.
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*.
7. Submit a formal statement of at least 500 words explaining the applicant's educational and career objectives.

Applicants who, by admission deadline, meet the preceding requirements 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 October 1 for Spring admission.

Students may not take more than 9 credits of PUBADM coursework (3 of which can be PUBADM 500) 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 if they have not already completed this course.

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.

MPA Internship All students are required to complete a six credit internship for a total of 45 credits unless all or part of these credits are waived. Students who have at least one year of substantive administrative, management or professional experience in or with the public or nonprofit sector may petition the graduate director to waive the internship requirement. This petition must be submitted AFTER a student has been admitted to the MPA program and should include a letter detailing the basis for the petition along with a recent copy of the student's resume. Instructions to petition for internship waiver or to obtain an internship are available on the department website.

Degree Requirements

Master of Public Administration	
Course Number and Title	Credits
MPA students must successfully complete at least 39 semester credit hours of approved MPA course work. Twenty-one semester credit hours are core courses. PUBADM 500 should be completed as a pre- or co-requisite for PUBADM 501, PUBADM 502, PUBADM 503, PUBADM 504, and PUBADM 505. The eighteen additional semester credit hours are in the student's area of emphasis and/or in the electives requirement. Some students may also be required to complete the public service internship which is explained below.	
Course Selection Selection of courses is to be made in consultation with the student's academic advisor.	
Core Requirements Each MPA student is required to complete the following core courses. The core courses emphasize the knowledge and skills necessary to be effective in public service management and leadership. Each class includes an exploration of student values and public service ethics. PUBADM 500 Administration in the Public Sector ..... 3 PUBADM 501 Public Policy Process ..... 3 PUBADM 502 Organizational Theory ..... 3 PUBADM 503 Research Methods in Public Administration ..... 3 PUBADM 504 Public Budgeting and Financial Administration ..... 3 PUBADM 505 Public Personnel Administration ..... 3 PUBADM 600 Assessment 3	21
Area of Emphasis Requirements 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. **1. General Public Administration:** This area of emphasis is provided to accommodate 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.	12

— continued —

Master of Public Administration (continued)	
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 PUBADM 544 Energy Policy in the Western U.S. ..... 3 PUBADM 545 U.S. Energy Policy ..... 3 PUBADM 546 Climate Change Policy and Administration 3	
3. State and Local Government Policy and Administration: All students in this area of emphasis take the following course: PUBADM 560 State and Local Government Policy and Administration ..... 3 Nine credits chosen from the following courses or approved Selected or Special Topics courses: CRP 501 (PUBADM 520) Introduction to Community and Regional Planning ..... 3 PUBADM 540 Contemporary Issues in Natural Resource and Environmental Policy and Administration **OR** PUBADM 541 Environmental and Regulatory Policy and Administration ..... 3 PUBADM 550 The Executive and the Administrative Process 3	
Electives Students must complete 6 elective semester credit hours in addition to their area of emphasis and core requirements. These credits may be taken as course work or as a Directed Research (PUBADM 696) which relates to their area of emphasis.	6
Total	**39**

Transfer of Graduate Courses
Because of a cooperative agreement made with Idaho State University and the University of Idaho, the MPA credits earned at those institutions can, with approval, be accepted into the Boise State University program. Transfer of credit from all other institutions is limited to twelve (12) semester credits.

Public Service Internship
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 meant 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.

Graduate Certificate in Community and Regional Planning

Director of Certificate Program: Susan Mason
Environmental Research Building, Room 1139, 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 of Community and Regional Planning Program, Boise State University, 1910 University Drive, Boise, ID 83725-1935. (For applicants whose academic record predates the application by five years or more, supervisors may submit letters of recommendation.)
5. Submit a letter of interest and current resume to the Director of the Community and Regional Planning Graduate Certificate Program.
6. Applicants who do not meet all of the above requirements MAY be allowed to enroll in the program with provisional graduate 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 the 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. The program leading to the Graduate Certificate in Community and Regional Planning is of primary relevance to students interested in the following occupation (Standard Occupational Classification code in parentheses): Urban and Regional Planners (19-3051). Information on SOC-coded occupations is available at www.bls.gov/soc/major_groups.htm and subsidiary links. The normal time to complete the certificate requirements is 2 years, the tuition and fees for normal time completion are estimated to be $4,410 (part-time status), and the typical cost for books and supplies not included in tuition and fees is estimated to be $750. It is very important that interested students consult the graduate program coordinator for clarification of this information, especially the role of the certificate in preparing individuals for employment in specific occupations.

Graduate Certificate in Community and Regional Planning	
Course Number and Title	Credits
Core courses Each Community and Regional Planning Certificate student is required to complete nine credit hours of core courses. CRP 501 (PUBADM 520) Introduction to Community and Regional Planning....3 CRP 504 (PUBADM 524) Introduction to Policy Formation: Geographic Information Systems (GIS) **OR** GEOG 560 Introduction to Geographic Information Systems....3 PUBADM 560 State and Local Government Policy and Administration....3	9

— continued —

Graduate Certificate in Community and Regional Planning (continued)	
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. CE 572 Transportation Planning ..... 3 CE 575 Traffic Engineering ..... 3 CMGT 570 Land Development ..... 3 CRP 522 (PUBADM 522) Planning: Process and Practice ..... 3 CRP 523 (PUBADM 523) Planning and Zoning ..... 3 CRP 586 (PUBADM 586) Selected Topics: Community and Regional Planning ..... 1-3 DISPUT 502 Negotiation Theory and Practice ..... 1 DISPUT 503 Conflict Intervention Methods ..... 1 DISPUT 504 Facilitating Groups in Conflict ..... 1 MHLTHSCI 560 Public Health Disaster Preparedness Planning: Risk Management ..... 3 Other Graduate Courses—Graduate courses in a related field. All courses to be selected with student input and approved by the supervisory committee.	6
Total	**15**

Graduate Certificate in Conflict Management

Graduate Program Director: Suzanne McCorkle
Environmental Research Building, Room 4131, 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

The program leading to the Graduate Certificate in Conflict Management develops skills for productive response to interpersonal and group conflict. These skills are relevant to a very broad set of occupations, including but not limited to many of the detailed occupations listed under the following major groups of the Standard Occupational Classification code (SOC codes in parentheses): Management Occupations (11-000), Business and Financial Operations Occupations (13-000), Community and Social Services Occupations (21-000), Legal Occupations (23-0000), Education, Training, and Library Occupations (25-000), Healthcare Support Occupations (31-000), and Protective Service Occupations (33-000). Information on SOC-coded occupations is available at www.bls.gov/soc/major_groups.htm and subsidiary links. The normal time to complete the certificate requirements is 1 year, the tuition and fees for normal time completion are estimated to be $3,612 (part-time status), and the typical cost for books and supplies not included in tuition and fees is estimated to be $450. It is very important that interested students consult the graduate program coordinator for clarification of this information, especially the role of the certificate in preparing individuals for employment in specific occupations.

Graduate Certificate in Conflict Management Generalist Option	
Course Number and Title	Credits
*DISPUT 500 Basic Mediation	3
DISPUT 501 Human Factors in Conflict Management	1
DISPUT 502 Negotiation Theory and Practice	1
DISPUT 503 Conflict Intervention Methods	1
DISPUT 504 Facilitating Groups in Conflict	1
DISPUT 505 Culture and Conflict	1
Electives DISPUT 594, 597, or other approved electives	4
Total	12
*Candidates who have already completed DISPUT 400 or other equivalent undergraduate basic mediation courses will waive DISPUT 500 and then take three additional graduate credits of approved elective coursework.	

Graduate Certificate in Conflict Management Competency Option**	
Course Number and Title	Credits
*DISPUT 500 Basic Mediation	3
DISPUT 501 Human Factors in Conflict Management	1
DISPUT 502 Negotiation Theory and Practice	1
DISPUT 504 Facilitating Groups in Conflict	1
DISPUT 505 Culture and Conflict	1
DISPUT 590 Internship	2
DISPUT 546 Competency Exam	1
Electives DISPUT 594, 597, or other approved electives	2
Total	**12**

— continued —

Conflict Management Competency Option (Continued)

*Candidates who have already completed DISPUT 400 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

See page 52 for a definition of course numbering and terminology.

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. PREREQ: Admitted to MCRP program or PERM/INST.

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. PREREQ: Admitted to MCRP or CCRP program or PERM/INST.

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. PREREQ: Admitted to MCRP program or PERM/INST.

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. PREREQ: Admitted to MCRP program or PERM/INST.

CRP 504 (PUBADM 524) INTRODUCTION TO POLICY FORMATION–GEOGRAPHIC INFORMATION SYSTEMS (GIS) (3-0-3)(F/S). Use computers and ArcGIS software to learn about geographic data, examine public policy problems that have geographic component, and perform spatial analysis. May be taken for CRP or PUBADM credit but not both. PREREQ: Admitted to MCRP or CCRP program or PERM/INST.

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. PREREQ: Admitted to MCRP program or PERM/INST.

CRP 510 GIS APPLICATIONS AND VISUALIZATON 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. PREREQ: Admitted to MCRP program, CRP 504/PUBADM 524 or GEOG 560 or PERM/INST.

CRP 511 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. PREREQ: Admitted to MCRP program or PERM/INST.

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. PREREQ: Admitted to MCRP program or PERM/INST.

CRP 520 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. PREREQ: Admitted to MCRP program or PERM/INST.

CRP 521 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, alternate travel, investment guidelines, and technological change will be considered. Students will apply methods to evaluate various proposals. PREREQ: Admitted to MCRP program or PERM/INST.

CRP 522 (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. PREREQ: Admitted to MCRP or CCRP program or PERM/INST.

CRP 523 (PUBADM 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. PREREQ: Admitted to MCRP or CCRP program or PERM/INST.

CRP 530 STATE, REGIONAL AND COMMUNITY ECONOMIC DEVELOPMENT (3-0-3)(F/S). Examination of regional, state, and local economic development theory, analysis, policy and administration. PREREQ: Admitted to MCRP program or PERM/INST.

CRP 531 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. PREREQ: Admitted to MCRP program or PERM/INST.

CRP 532 REAL ESTATE DEVELOPMENT (3-0-3)(F/S). Fundamentals and techniques of real estate development including the influence of public interest, private investment, public policies and the use of investment analysis methods. PREREQ: Admitted to MCRP program or PERM/INST.

CRP 533 PUBLIC FINANCE FOR PLANNERS (3-0-3)(F/S). Examines public finance concepts for planners; budgets, local taxation options, expenditures, and debt financing. Specific topics include alternatives to the property tax; development exactions; tax-increment financing; and the possible implications of demographic changes (e.g., aging and immigration) on local budgets. PREREQ: Admitted to MCRP program or PERM/INST.

CRP 534 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. PREREQ: Admitted to MCRP program or PERM/INST.

CRP 540 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 the role of community based organizations involved in housing activities. Also considers social and community development aspects of neighborhoods and metropolitan regions. PREREQ: Admitted to MCRP program or PERM/INST.

CRP 541 COMMUNITY DESIGN AND SITE PLANNING (3-0-3)(F/S). Community design considered in concert with geological, aesthetic, environmental, and legal issues of site planning. Environmentally sensitive areas compatibility with surrounding development and zoning are considered. PREREQ: Admitted to MCRP program or PERM/INST.

CRP 551 SUSTAINABLE DEVELOPMENT (3-0-3)(F/S). Explores the many challenges of achieving sustainable development at the local, regional and national levels. A broad range of sustainable development topics, tools, and techniques are examined. PREREQ: Admitted to MCRP program or PERM/INST.

CRP 561 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. PREREQ: Admitted to MCRP program or PERM/INST.

SELECTED TOPICS (1-3 Variable). To be offered as staff availability permits:

CRP 581 ENVIRONMENTAL AND NATURAL RESOURCES.
PREREQ: Admitted to MCRP program or PERM/INST.

CRP 582 LAND USE AND TRANSPORTATION.
PREREQ: Admitted to MCRP program or PERM/INST.

CRP 583 ECONOMIC DEVELOPMENT.
PREREQ: Admitted to MCRP program or PERM/INST.

CRP 584 HOUSING, SOCIAL, AND COMMUNITY DEVELOPMENT.
PREREQ: Admitted to MCRP program or PERM/INST.

CRP 585 PRACTICE OF PLANNING.
PREREQ: Admitted to MCRP program or PERM/INST.

CRP 586 (PUBADM 586) COMMUNITY AND REGIONAL PLANNING.
May be taken for CRP or PUBADM credit, but not both. PREREQ: Admitted to MCRP or CCRP program or PERM/INST.

DISPUT—DISPUTE RESOLUTION

DISPUT 500 BASIC MEDIATION SKILLS (3-0-3)(F/S). Students learn the theoretical foundations of negotiation and mediation, types of mediation, mediation models, mediation case work skills, building the mediation plan, interpersonal communication skills for mediation, and various resolution techniques. Students will mediate several actual and/or simulated practice cases.

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 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 related to mediation within their specialty area. (Pass/Fail.) PREREQ: PERM/PROG DIR.

DISPUT 565 CONFLICT MANAGEMENT IN ENVIRONMENT, NATURAL RESOURCE AND ENERGY POLICY (3-0-3)(F/S). Public and private interests in environmental, natural resource, and/or energy policy often clash. Examines processes to manage larger scale issues, the roles of government and private entities in these conflicts, and case studies of regional interest.

DISPUT 575 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. PRE/COREQ: PUBADM 500 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 non-profit sector will also be addressed. PRE/COREQ: PUBADM 500 or PERM/PROG DIR.

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. PRE/COREQ: PUBADM 500 or PERM/PROG DIR.

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. PRE/COREQ: PUBADM 500 or PERM/PROG DIR.

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. PRE/COREQ: PUBADM 500 or PERM/PROG DIR.

PUBADM 508 SURVEY RESEARCH (3-0-3)(F/S)(Alternate years). This course addresses the theoretical and practical nexus between public policy and public opinion and the role that surveys play in that relationship. Students will engage directly in survey research. Topics include survey design, implementation, sampling, data collection, follow-up, analysis, and ethical considerations. PREREQ: PUBADM 503 or PERM/INST.

PUBADM 509 PUBLIC POLICY ANALYSIS (3-0-3)(F/S)(Alternate years). This class will introduce policy analysis, policy tools, and factors shaping the utilization of policy analysis. A significant portion of the course will be spent in learning and applying analytical techniques. PREREQ: PUBADM 503 or PERM/INST.

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 512 INFORMATION TECHNOLOGY AND PUBLIC POLICY (3-0-3)(F/S)(Alternate years). Examines implications of information technology for policymaking and policy analysis as well as the management of knowledge and information in and between organizations.

PUBADM 513 ECONOMICS OF PUBLIC POLICY (3-0-3)(F/S)(Alternate years). Contributions of economic analysis to the justification, design, and implementation of economic policy, especially as it relates to the market economy and the benefits and costs associated with government intervention.

PUBADM 514 INTRODUCTION TO NONPROFIT MANAGEMENT AND COLLABORATION (3-0-3)(F/S)(Alternate years). The course examines the implementation of public policy through nongovernmental organizations. Students will gain a general understanding of the history of philanthropy in selected nations and will explore the various social, economic, and political assumptions that found contemporary cross-sector delivery systems.

PUBADM 515 POLICY IMPLEMENTATION AND PRACTICE (3-0-3) (F/S) (Alternate years). Examines mechanisms, assumptions, and measurement issues surrounding various forms of public policy implementation including the use of direct service delivery by public organizations, collaborative systems and the use of for-profit and nonprofit organizations.

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 (CRP 504) INTRODUCTION TO POLICY FORMATION: GEOGRAPHIC INFORMATION SYSTEMS (GIS)(3-0-3)(F/S). Use computers and ArcGIS software to learn about geographic data, examine public policy problems that have geographic component, and perform spatial analysis. May be taken for CRP or PUBADM credit but not both.

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 544 ENERGY POLICY IN THE WESTERN U.S. (3-0-3)(F/S). Examines energy resources, uses, reserves, and the perspectives of citizens impacted by resource extraction and use in the U.S. West. Emphasis is placed on current resource extraction developments in the oil, gas, coal, oil shale, tar sands, nuclear, and renewable industries.

PUBADM 545 U.S. ENERGY POLICY (3-0-3)(F/S). Explores the key issues in the development of major energy policy choices in the U.S. with attention paid to issues with international ramification.

PUBADM 546 CLIMATE CHANGE POLICY AND ADMINISTRATION (3-0-3)(F/S). Scientific basis for global warming concerns and addresses policies to curb greenhouse gas emissions. Experience from greenhouse gas markets and regulations are highlighted.

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 (CRP 586) COMMUNITY AND REGIONAL PLANNING.** May be taken for CRP or PUBADM credit, but not both.
- **PUBADM 587 COMPARATIVE PUBLIC ADMINISTRATION AND PLANNING SYSTEMS**

Refer to the *University-wide Graduate Courses* section in this catalog for additional course offerings.

School of Social Work

Director: Roy Rodenhiser
Education Building, Room 716, Mail Stop 1940
Telephone (208) 426-1568
FAX (208) 426-4291
http://sspa.boisestate.edu/socialwork/

Graduate Faculty: Robin Allen, Gretchen Cotrell, Daniel Harkness, Bonnie Kenaley, Denice Goodrich Liley, Roy Rodenhiser, Cynthia Sanders, Misty Wall

Adjunct Graduate Faculty: 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: Roy Rodenhiser
Education Building, Room 716, Mail Stop 1940
Telephone (208) 426-1568
e-mail: royrodenhiser@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 2010). 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 1. 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 562 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

Master of Social Work—Two Year Program	
Course Number and Title	Credits
Year One—Foundation	32
SOCWRK 502 Foundation of Social Welfare and Social Work: History and Philosophy	3
SOCWRK 503 Foundation Social Work Practice I: Individuals	3
SOCWRK 504 Foundation Social Work Practice II: Families and Groups	3
SOCWRK 505 Foundation of Social Welfare Policy	3
SOCWRK 512 HBSE I Human Development Through the Life Cycle	3
SOCWRK 514 Ethnicity, Gender and Class	1
SOCWRK 515 Foundation Social Work Practice III: Organizations and Communities	3
SOCWRK 521 HBSE II Social Dimensions of Human Behavior	3
SOCWRK 530 Foundations of Research I	2
SOCWRK 531 Foundations of Research II	2
SOCWRK 570 Foundation Field Work I	2
SOCWRK 572 Foundation Field Work II	2
SOCWRK 573 Foundation Practicum Seminar I	1
SOCWRK 574 Foundation Practicum Seminar II	1

— continued —

Master of Social Work – Two Year Program (Continued)	
Year Two—Advanced	31
SOCWRK 506 Advanced Policy and Legislation: Individuals and Families	3
SOCWRK 516 Advanced Practice with Diverse Populations	2
SOCWRK 525 Advanced Social Work Interventions II: Individuals and Families	3
SOCWRK 526 The Evaluation and Treatment of Mental Disorders	3
SOCWRK 532 Advanced Research: Program and Practice Evaluation	3
SOCWRK 550 Advanced Interventions I: Comparative Theories	3
SOCWRK 575 Advanced Social Work Practicum I	5
SOCWRK 576 Advanced Social Work Practicum II	5
SOCWRK 577 Advanced Practicum Seminar I	1
SOCWRK 578 Advanced Practicum Seminar II	1
*One elective	2
Total	**63**

*Specialization Electives (2 credits each)
Selected Topics
(Elective options will vary from year to year, and may include these or other pertinent issues.)

Violence in the Family	Rural Social Work
Substance Abuse	School Social Work
Women's Issues	Aids Issues
Social Work with the Elderly	Family Therapy
Social Work Supervision	Health Issues
Grant Writing/Administration	Group Therapy
International Social Work	Political Social Work
Social Work with People of Color	

Curriculum Guidelines established by the Council on Social Work Education are available in the School of Social Work office.

Master of Social Work—Advanced Standing	
Course Number and Title	Credits
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: 1. Graduation from a CSWE Accredited Baccalaureate Social Work Program. 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. 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. 4. All other requirements equivalent to regular admissions. Applicants may not receive academic credit for work experience in the field.	
Total	**31**

Graduate Certificate in Gerontological Studies

(See Section on Interdisciplinary Programs)

Course Offerings

See page 52 for a definition of course numbering and terminology.

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 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 universality 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 cultural values and ideological orientations that undergird policy preferences are critiqued. An introduction to family policy approaches in other nations sharpens this critique. PREREQ: SOCWRK 505 or admission to Advanced Standing MSW Program.

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 sates, 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 ADVANCED ISSUES IN HUMAN DIVERSITY (3-0-3)(SU). Develop knowledge and skills required to effectively work with persons from diverse backgrounds. A highly experiential course requiring overt and candid investigation of personal identity development and ways of thinking about practicing social work with persons from diverse backgrounds. PREREQ: Admission to Advanced Standing MSW Program.

SOCWRK 514 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, affectional 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/COREQ: 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. PREREQ: Admission to MSW program.

SOCWRK 521 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, affectional 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 529 RESEARCH AND STATISTICS FOR SOCIAL WORK (3-0-3) (SU). Methods of data processing, analysis, and implications of quantitative and qualitative data to advance social work practice, knowledge, and theory. Use and interpret various statistical procedures for analyzing quantitative and qualitative data using computer software applications. PREREQ: 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 approaches to practice and program evaluation. 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 575.

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.

SOCWRK 561 ADVANCED CHILD WELFARE (2-0-2)(S). Prepares student for advanced child welfare practice with children, youth and families; develops beginning child welfare clinical practice knowledge and skills; introduces to macro and mezzo practice opportunities in the child welfare system.

SOCWRK 562 SCHOOL SOCIAL WORK (2-0-2)(S). To develop an in-depth understanding of school social work skills and knowledge. Emphasis on school social work from a point of view that incorporates knowledge and values from a broad range of social work theoretical approaches. PREREQ: SOCWRK 550.

SOCWRK 563 ALCOHOLISM AND SUBSTANCE ABUSE (2-0-2)(S). Examines theories and causes of alcoholism and substance abuse, criteria for assessment, and major treatment approaches for working with individuals and families. PREREQ: SOCWRK 550.

SOCWRK 564 AGING (2-0-2)(S). Includes policy issues and services that should be available to all aged, and special services that are essential for the frail, impaired, or isolated elderly. Available programs are explored, including local organizations and related social services. Emphasis on strengths-based social work practice. PREREQ: SOCWRK 550.

SOCWRK 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 foundation social work values, skills and knowledge, and development of professional self. (Pass/Fail.) COREQ: SOCWRK 503, SOCWORK 573 and admission to the MSW Two Year Program.

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 a generalist practice perspective in social work values, skills and knowledge, and 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 practiced 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 576 ADVANCED SOCIAL WORK PRACTICUM II (0-20-5)(S). Continuation of SOCWRK 575. (Pass/Fail.) PREREQ: SOCWRK 575. COREQ: SOCWRK 578.

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.

SOCWRK 578 ADVANCED PRACTICUM SEMINAR II (1-0-1)(S). Continuation of SOCWRK 577. PREREQ: SOCWRK 575, SOCWRK 577. COREQ: SOCWRK 576

SELECTED TOPICS (1-4 Variable). To be offered as staff availability permits:

- **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 SOCIAL WORK PRACTICE WITH ORGANIZATIONS AND COMMUNITIES**
- **SOCWRK 586 SOCIAL WORK WITH GROUPS**
- **SOCWRK 587 SOCIAL WORK SUPERVISION**

Refer to the *University-wide Graduate Courses* section in this catalog for additional course offerings.

Interdisciplinary Programs

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: Shawn Benner
Environmental Research Building, Room 4155, Mail Stop 1535
Telephone (208) 426–3629
FAX (208) 426-4061
e-mail: sbenner@boisestate.edu
http://earth.boisestate.edu

Department of Biological Sciences
Contact: Kevin Feris
Science Building, Room 226, Mail Stop 1515
Telephone (208) 426-5498
FAX (208) 426-1040
e-mail: kevinferis@boisestate.edu
http://Biology.boisestate.edu/

College of Engineering
Department of Civil Engineering
Contact: George Murgel
Environmental Research Building, Room 4147, Mail Stop 2075
Telephone (208) 426-3788
FAX (208) 426-4800
e-mail: gmurgel@boisestate.edu
http://coen.boisestate.edu

Graduate Faculty: Warren Barrash, Shawn Benner, Paul Dawson, Kevin Feris, Alejandro Flores, 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

Master of Science in Hydrologic Sciences	
Course Number and Title	Credits
GEOS 598 Graduate Seminar Enrollment in Graduate Seminar is required each semester of all graduate students on campus; one credit may be applied towards graduation.	1
Hydrologic Sciences Core (2 of the following 3 courses) GEOS 512/CE 512 Hydrology: Flow in Geologic Systems .....3 GEOS 516/CE 516 or GEOPH 516 Hydrology.....3 GEOS 526/CE 526 Aqueous Geochemistry 3	6
Electives Approved by the Supervisory Committee	17
Culminating Activity GEOS 593 Thesis **OR** CE 593 Thesis	6
Total	**30**

Course Offerings

See page 52 for a definition of course numbering and terminology.

GEOS—GEOSCIENCE

GEOS 511 HYDROLOGY: LAND-ATMOSPHERE INTERACTION (3-0-3)(F). Introduction to the hydrologic cycle and connections between the land surface and atmosphere. Atmospheric circulation, global hydrologic budget, atmospheric radiation, meteorology and climatology of rainfall, snow processes, surface energy and moisture balance, turbulent fluxes, and modeling and remote sensing. PREREQ: MATH 175.

GEOS 512 (CE 512) HYDROGEOLOGY (3-0-3)(S). 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 porpou 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)(F). 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). 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 autocyclic 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 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 feed back. 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 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 not for more than one department. PREREQ: CE 623 or GEOPH 623 or GEOS 623 or PERM/INST.

GEOS 630 (CE 630) VADOSE ZONE HYDROLOGY (3-0-3)(F)(Even years). 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 412, GEOS 412, CE 512, or GEOS 512 or PERM/INST.

GEOS 633 (CE 633) CONTAMINANT HYDROGEOLOGY (3-0-3)(F)(Odd years). 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.

GEOS 636 STABLE ISOTOPE GEOCHEMISTRY (3-0-3)(S)(Alternate years). Comprehensive overview of theory, methods, and applications of stable isotope geochemistry to a wide range of earth science problems. 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 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.

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

Master of Arts or Master of Science Interdisciplinary Studies
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

See page 52 for a definition of course numbering and terminology.

INTDIS—INTERDISCIPLINARY STUDIES

INTDIS 591 PROJECT (0-V-6). Students are expected to draw critically upon the two or more disciplines studies 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 Coordinators:

William Knowlton
Micron Engineering Center, Room 202M, Mail Stop 2075
Telephone (208) 426-5705
FAX (208) 426-2470
e-mail: bknowlton@boisestate.edu

William Hughes
Micron Engineering Center, Room 302D, Mail Stop 2075
Telephone (208) 426-4859
FAX (208) 426-2470
e-mail: willhughes@boisestate.edu

Engineering Graduate Faculty: Darryl Butt, Janet Callahan, Kris Campbell, Sean M. Donovan, Megan Frary, Elton Graugnard, Will Hughes, William Knowlton, Wan Kuang, Paul Lindquist, Maria Mitkova, Amy Moll, Peter Müllner, Rick Ubic, John Youngsman, Bernard Yurke

Physics Graduate Faculty: Charles Hanna, Byung-Il Kim, Alex Punnoose, Pushpa Raghani, Dmitri Tenne

Chemistry and Biochemistry Graduate Faculty: Eric Brown, Henry Charlier, Jeunghoon Lee, Owen McDougal, Dale Russell, Martin Schimpf, Don Warner

Biological Sciences Graduate Faculty: Julia Thom Oxford

Engineering Adjunct Graduate Faculty: Robert Pond

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

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.

Master of Science in Materials Science and Engineering	
Course Number and Title	Credits
Required Courses MSE 505 Bonding and Structure of Materials....3 MSE 508 Solid State Thermodynamics....4 MSE 518 Phase Transformations and Kinetics....3 PHYS 515 Solid State Physics....3 PHYS 523 Physical Methods of Materials Characterization....3	16
Other Graduate Courses Graduate courses in materials science and engineering or related field; all courses to be selected with student input and approved by the supervisory committee.	8
Thesis MSE 593 Thesis **OR** PHYS 593 Thesis **OR** CHEM 593 Thesis	6
Total	**30**

Master of Engineering in Materials Science and Engineering

College of Engineering
Department of Materials Science and Engineering

Graduate Program Coordinators:
William Knowlton
Micron Engineering Center, Room 202M, Mail Stop 2075
Telephone (208) 426-5705
FAX (208) 426-2470
e-mail: bknowlton@boisestate.edu

William Hughes
Micron Engineering Center, Room 302D, Mail Stop 2075
Telephone (208) 426-4859
FAX (208) 426-2470
e-mail: willhughes@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 MSE 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.

Master of Engineering in Materials Science and Engineering	
Course Number and Title	Credits
Required Courses MSE 505 Bonding and Structure of Materials....3 MSE 508 Solid State Thermodynamics....4 MSE 518 Phase Transformations and Kinetics....3 PHYS 515 Solid State Physics....3 PHYS 523 Physical Methods of Materials Characterization....3	16
Other Graduate Courses Graduate courses in materials science and engineering or related field; all courses to be selected with student input and approved by the supervisory committee.	14
Comprehensive Examination MSE 600 Assessment [Comprehensive Examination]	1
Total	**31**

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.Engr. MSE) with the approval of the supervisory committee.

Course Offerings

See page 52 for a definition of course numbering and terminology.

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 PROCESSING (3-0-3)(F). Fundamentals of integrated circuit 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. PREREQ: ECE 320 or PERM/INST. COREQ: ECE 540L.

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 microlithography, 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/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 342. COREQ: ECE 542.

MSE—MATERIALS SCIENCE AND ENGINEERING

MSE 501 SURVEY OF MATERIALS SCIENCE (3-0-3)(F/S)(On demand). 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 245.

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 519 INTERFACIAL KINETICS AND TRANSPORT PROCESSES (3-0-3)(S)(Even years). Reaction kinetics and mass transport phenomena at materials interfaces important in materials processing and performance, including gas-solid, liquid-solid, and electrochemical processes. Emphasis on understanding fundamental mechanisms that control rates of reactions and mass transport. PREREQ: 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 421 or MSE 521.

MSE 523 INTRODUCTION TO X-RAY DIFFRACTION (1-2-1)(F/S). A practical introduction to the apparatus and technique of x-ray diffraction for crystalline materials in the form of bulk materials, powders, or films. Students are required to have an approved project and approval of their research advisor to enroll in this course. PREREQ: MSE 305 or MSE 505, and PERM/INST.

MSE 528 INTERFACES AND DISLOCATION BEHAVIOR (3-0-3)(S)(Odd 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 (3-0-3)(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 BIOCOMPATIBILITY AND ENVIRONMENTAL DEGRADATION (3-0-3)(F/S). 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 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 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 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 glues, 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.

Graduate Certificate in Addiction Studies

College of Education
Department of Counselor Education

College of Health Sciences
Master of Health Science Program
Contact: Susan Esp
Health Science Riverside, Room 103, Mail Stop 1835
Telephone (208) 426-3970
e-mail: susanesp@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, if holding a baccalaureate degree in Psychology, Sociology, Health Sciences, or other health related degree) or Advanced Certificate Alcohol and Drug Counselor (ACADC, 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. The program leading to the Graduate Certificate in Addiction Studies is of primary relevance to students interested in the following occupation (Standard Occupational Classification code in parentheses): Substance Abuse and Behavioral Disorder Counselors (21-1011). Information on SOC-coded occupations is available at www.bls.gov/soc/major_groups.htm and subsidiary links. The normal time to complete the certificate requirements is 2 years, the tuition and fees for normal time completion are estimated to be $5,292 (part-time status), and the typical cost for books and supplies not included in tuition and fees is estimated to be $900. It is very important that interested students consult the graduate program coordinator for clarification of this information, especially the role of the certificate in preparing individuals for employment in specific occupations.

Prerequisite for the certificate program is COUN 545/MHLTHSCI 545 Foundations of Chemical Dependency (Offered every Fall semester, evening class once per week).

Graduate Certificate in Addiction Studies	
Course Number and Title	Credits
COUN 541/MHLTHSCI 544 Addiction and the Family System	3
COUN 544/MHLTHSCI 564 Screening and Assessment of Alcohol and Drug Problems	3
COUN 546/MHLTHSCI 565 Assessment and Case Management of Alcohol and Drug Problems	3
A minimum of 9 credits from the following: COUN 543/MHLTHSCI 543 Assessing and Managing Adolescent Substance Abuse and Mental Health Risks ..... 3 COUN 547/MHLTHSCI 547 Chemical Addictions and Violence Prevention ..... 3 COUN 550/MHLTHSCI 568 Diagnosis, Assessment and Treatment Planning ..... 2 COUN 567/MHLTHSCI 567 Clinical Supervision Principles and Practice ..... 1 HLTHST 469 Ethics for Addiction Professionals **OR** COUN 508 Special Needs, Ethics, and Legal Issues in Counseling ..... 2-3 MHLTHSCI 548 Counseling Skills for Addiction Professionals **OR** COUN 502 Counseling Theories & Application 3	9
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 he 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

See page 52 for a definition of course numbering and terminology.

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 544 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.

Graduate Certificate in Gerontological Studies

College of Education
Department of Counselor Education
Contact: Bobbie Birdsall
Education Building, Room 611, Mail Stop 1721
Telephone (208) 426-3204
e-mail: bbirdsa@boisestate.edu

College of Health Sciences
Master of Health Science Program
Contact: Sarah Toevs
Health Science Riverside Building, Room 104, Mail Stop 1835
Telephone (208)-426-2452
e-mail: stoevs@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. The program leading to the Graduate Certificate in Gerontological Studies is of primary relevance to students interested in the following occupations (Standard Occupational Classification code in parentheses): Counselors, All Other (21-1019), Social Workers, All Other (21-1029), Community and Social Service Specialists, All Other (21-1099), and Home Health Aides (31-1011). Information on SOC-coded occupations is available at www.bls.gov/soc/major_groups.htm and subsidiary links. The normal time to complete the certificate requirements is 2 years, the tuition and fees for normal time completion are estimated to be $5,292 (part-time status), and the typical cost for books and supplies not included in tuition and fees is estimated to be $900. It is very important that interested students consult the graduate program coordinator for clarification of this information, especially the role of the certificate in preparing individuals for employment in specific occupations.

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.

Graduate Certificate in Gerontological Studies	
Course Number and Title	Credits
Required Core Courses: COUN/MHLTHSCI/SOCWRK 571 Fundamentals of Healthy Aging ..... 3 MHLTHSCI 576 Health Policymaking and Issues in Aging .... 3 COUN/MHLTHSCI/SOCWRK 590 Practicum 3	9
Area of Concentration (select **one** area of concentration) **Counseling Concentration** COUN 517 Family Issues in Later Life ..... 3 COUN 518 Counseling Issues with Older Adults ..... 3 COUN 550 Diagnosis, Assessment & Treatment Planning.... 2 COUN 551 Psychopharmacology ..... 1 **Health Science Concentration** HLTHST 410 Health and Aging ..... 3 MHLTHSCI 555 Program Evaluation ..... 3 MHLTHSCI 574 Health Promotion and Optimal Aging ..... 3 **Social Perspectives Concentration** SOC 512 Social Demography ..... 3 SOC 572 Sociology of Aging ..... 3 SOCWRK 533 Aging: Social Policy and Programs ..... 3 **Health Promotion/Exercise Science Concentration** BIOL 300 Biology of Aging ..... 3 KINES 430 Physical Activity and Aging ..... 3 MHLTHSCI 574 Health Promotion and Optimal Aging 3	9
Total	**18**

Division of Extended Studies

Dean: Mark Wheeler
Associate Dean: Peter Risse
220 E. Parkcenter Boulevard, Mail Stop 1120
Telephone (208) 426-1709
FAX (208) 426-3467
e-mail: ESTellUs@boisestate.edu
www.boisestate.edu/extendedstudies

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
- Graduate Certificate in Workplace Instructional Design

Offered at Regional Sites 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 The **Master of Educational Technology** is for students who are practitioner focused, and a **Master of Science in Educational Technology** is 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 training faculty to teach in 3-D virtual worlds. All of the 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

Instructional & Performance Technology The Department of Instructional & Performance Technology (IPT) in the College of Engineering offers an M.S. degree and three graduate certificates. Each of these programs can be completed entirely online.

The **Master of Science in Instructional & Performance Technology** (IPT) degree is intended to prepare students for careers in performance technology, instructional design, training and training management, e-learning in business and industry, human resources, organizational development and human performance consulting. The M.S. degree is a 36-credit program.

The graduate certificates are intended for individuals who want to increase their skills and credentials in a specific area of study. The **Human Performance Technology** (HPT) graduate certificate emphasizes the practical application of process models, tools, and techniques to improving workplace performance. The **Workplace E-Learning and Performance Support** (WELPS) graduate certificate emphasizes the competencies required to design, develop, and manage workplace e-learning and performance support systems. The **Workplace Instructional Design** (WIDe) graduate certificate emphasizes the knowledge and skills required to create instructional programs designed to improve employee productivity. For more information call (208)426-2489, e-mail jfenner@boisestate.edu, or visit http://ipt.boisestate.edu

Graduate Program in Nursing The School 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 and Boise 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 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 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 http://sspa.boisestate.edu/socialwork/academic-programs/graduate-program/.

Master of Social Work—Full Program This 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 http://sspa.boisestate.edu/socialwork/academic-programs/graduate-program/.

Graduate Certificate in Conflict Management This Treasure Valley 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://sspa.boisestate.edu/conflictmanagement/.

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://bswproject.com/.

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:

Coeur d'Alene
Boise State MSW Program
Lewis-Clark State College, Coeur d'Alene
1031 Academic Way, 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
Undergraduate programs
Boise State MSW Program
Aspen Building, Room 124
College of Southern Idaho Campus
P.O. Box 1238, Twin Falls, ID 83303
(208) 933-2361

For more information about these sites, courses, or the programs offered call the site coordinator or visit www.boisestate.edu/extendedstudies/regionalsites.

Other Programs

Graduate Preparation Courses

Assisting students to prepare for graduate admission exams is the focus of short courses on the Graduate Record Exam (GRE) and the Graduate Management Admissions Test (GMAT) offered by the Division of Extended Studies. For more information, call (208) 426-1709.

Professional Education Program for School Teachers and School District Employees

Working closely with local school districts, the Idaho State Department of Education, campus Academic Departments and the Boise State College of Education, the Professional Education program enables teachers, and professional employees of school districts to earn credit required for re-certification and salary increases. The graduate credits earned through the Professional Education program are offered at a reduced rate and cannot be used to satisfy degree requirements. For more information, call (208) 426-3713.

Summer Programs

Academic programs, courses, and services are offered during the summer, including graduate, undergraduate, and noncredit courses in 3-week, 5-week, 8-week sessions, and a 10-week session. A variety of workshops is also offered each summer. The Boise State University Summer Schedule of Classes is available to students each spring at http://broncoweb.boisestate.edu. For more information, call (208) 426-1709 or visit www.boisestate.edu/summer.

Boise State AfterWork

Boise State University now offers several undergraduate degree programs that can be completed evenings and weekends. All required courses are available during the evening or weekends so there is no need to arrange your job around school. For additional information call (208) 426-1709 or visit www.boisestate.edu/afterwork.

Center for Professional Development

The Center for Professional Development brings Boise State University's expertise to your business or organization. We provide training solutions to improve employee performance in managerial or professional arenas. Our consulting services assist clients in organization development and problem solving.

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) 426-1709 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) 426-3713.

Educational Travel Programs

Extended Studies provides educational travel opportunities for students and the community in their Educational Travel program. They offer 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. Travel is scheduled between semesters, spring break and summers and is offered for credit or non-credit. Recent programs 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/educationaltravel.

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.

Questions About Extended Studies?

If you have questions about these programs contact the Division of Extended Studies, 220 E. Parkcenter Blvd., (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.

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 spectroscopy; 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.

BMOL 607 GRADUATE RESEARCH PRESENTATION (1-0-1)(S). Oral presentation on research activity by third year students in the Biomolecular Sciences program. PREREQ: BMOL 601, BMOL 602, BMOL 603.

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.

CMGT—CONSTRUCTION MANAGEMENT

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.

ENGR—ENGINEERING SCIENCE

ENGR 575 MICROGRAVITY LEADERSHIP (1-0-1)(F/S). Advising undergraduate NASA Microgravity University research teams. May be repeated for credit. PREREQ: PERM/INST.

GENDER—GENDER STUDIES

GENDER 580 SELECTED TOPICS IN GENDER STUDIES (3-0-3) (F/S). Graduate-level studies of a particular topic relating to the field of gender studies.

GCOLL—GRADUATE COLLEGE

GCOLL 505 RESPONSIBLE CONDUCT OF RESEARCH (1-0-1)(F,S). Basic concepts, principles and practices governing research compliance and Responsible Conduct of 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. Online materials produced by the Collaborative Institutional Training Initiative (CITI). Lectures will cover the online 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 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 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 glues, 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 507 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 300.

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 (3-3-4)(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 NANOBIOTECHNOLOGY (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.

PHYSCI—PHYSICAL SCIENCE

PHYSCI 501 BASIC PHYSICAL SCIENCE FOR SCIENCE TEACHERS (3-0-3). Selected concepts of matter and energy that are widely applicable toward understanding our physical environment. A one-semester course for non-science majors.

SOC—SOCIOLOGY

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 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 572 SOCIOLOGY OF AGING (3-0-3) (F/S). The study of aging and age cohorts as they relate to and interact with social structures and processes with an emphasis on the later stages of aging. Topics include ageism within social institutions, the effects of age cohorts on work, education and medicine, and the boomer age cohort.

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.

Boise State University Administration

President
Robert W. Kustra

Provost and Vice President for Academic Affairs
Martin Schimpf

Vice Provost for Academic Planning
James Munger

Vice Provost 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 Information Technology
Max Davis-Johnson

Associate Vice President for Campus Planning and Facilities
James Maguire

Vice President for Student Affairs
Lisa Harris

Interim Vice President for University Advancement
Rosemary Reinhardt

Associate Vice President for University Advancement
Cheryl Larabee
Heather Brust

Vice President for Research
Mark Rudin

Associate Vice President for Energy Research, Policy, and Campus Sustainability
John Gardner

Associate Vice President for Strategic Research Initiatives
Cheryl Schrader

Associate Vice President and University Council
Kevin Satterlee

Dean of University Libraries
Marilyn K. Moody

Graduate College
Dean, John R. (Jack) Pelton
Associate Dean, Alfred Dufty

College of Arts and Sciences
Interim Dean, Tony Roark
Associate Dean, Vacant

College of Business and Economics
Dean, Patrick Shannon
Associate Dean, Diane Schooley-Pettis
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
Interim Dean, Amy J. Moll
Associate Dean of Academic Affairs, Janet Callahan
Assistant Dean of Research and Infrastructure, Rex Oxford

College of Health Sciences
Dean, Tim Dunnagan
Associate Dean, Pam Springer

College of Social Sciences and Public Affairs
Dean, Melissa Lavitt
Associate Dean, L. Shelton Woods

Division of Extended Studies
Dean, Mark Wheeler
Associate Dean, Peter Risse

Boise State University Graduate Faculty

Full-Time Official Faculty as of May 2011

NOTE: The date in parentheses is the year of first appointment.

***May chair graduate committees.**

A

Adam, Ludmila*.....(2011)
Assistant Research Professor, Geosciences; Ph.D., Colorado School of Mines

Ahmed-Zaid, Said*.....(1996)
Graduate Program Coordinator and Associate Professor, Electrical and Computer Engineering; Ph.D., University of Illinois at Urbana-Champaign

Allahar, Kerry*.....(2010)
Associate Research Professor, Materials Science and Engineering; Ph.D., University of Florida

Allen, Robin*.....(1997)
Professor, Social Work; Ph.D., University of Illinois at Urbana-Champaign

Allred, Keith W.*.....(2007)
Chair 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

Anderson, Holly L.*.....(1989)
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

Atlakson, 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

Baek, Young Kyun*.....(2011)
Professor, Educational Technology; Ph.D., Georgia State University

Bacon, Stephanie*.....(1998)
Professor, Art; M.F.A., Brooklyn College

Bahnson, Paul R.*.....(1999)
Professor, Accountancy; Ph.D., University of Utah

Bahruth, Robert*.....(1988)
Graduate Program Coordinator, and Professor, Bilingual Education; Ph.D., University of Texas at Austin

Baker, Edward (Ted)*.....(2002)
Associate Professor, Community and Environmental Health; Ph.D., Temple University

Baker, R. Jacob*.....(2000)
Professor, Electrical and Computer Engineering; Ph.D., University of Nevada

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

Bammel, Brad P.*.....(1988)
Associate Professor, Chemistry and Biochemistry; Ph.D., University of New Orleans

Barber, Jesse R.*.....(2011)
Assistant Professor, Biological Sciences; Ph.D., Wake Forest University

Barbour, Barton*.....(2001)
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

Barrash, Warren*.....(1995)
Research Professor, Geosciences Department; Ph.D., University of Idaho

Battalio, John T.*.....(1995)
Associate Professor, English; Ph.D., Texas A & M University

Baughn, C. Christopher*.....(1998)
Professor, Management; Ph.D., Wayne State University

Bechard, 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

Belthoff, James*.....(1993)
Professor, Biological Sciences; Ph.D., Clemson University

Benner, Shawn*.....(2004)
Graduate Program Coordinator, Hydrologic Sciences and Associate Professor, Geosciences; Ph.D., University of Waterloo

Berg, Lynn R.*.....(1984)
Professor, Music; D.M.A., University of Wisconsin, Madison

Bieter, John.....(2004)
Associate Professor, History; Ph.D., Boston College

Bigbee, Jeri L.*.....(2006)
Professor, Nursing; Ph.D., University of Texas at Austin

Birdsall, 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

Bodie, Nancy (Dusty).....(2008)
Assistant Professor, Management; Ph.D., University of Illinois at Chicago

Bostaph, Lisa Growette*.....(2004)
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

Brendefur, Jonathan*.....(2000)
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

Browning, Jim*.....(2007)
Associate Professor, Electrical and Computer Engineering; Ph.D., University of Wisconsin, Madison

Browning, William B.*.....(1996)
Professor, Modern Languages and Literatures; D.M.L., Middlebury College

Buchanan, Mark A.*.....(1996)
Professor, Management; J.D., University of Nebraska, Lincoln

Budde, 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

Bullock, Douglas*.....(1995)
Chair and Associate Professor, Mathematics and Computer Science; Ph.D., University of Iowa

Burkhart, Ross*.....(2004)
Associate Professor, Political Science; Ph.D., University of Iowa

Butt, Darryl*.....(2005)
Chair and Professor, Materials Science and Engineering; Ph.D., Pennsylvania State University

C

Cahill, Mary Ann.....(2007)
Assistant Professor, Literacy; Ed.D., Boise State University

Caicedo, Andres Eduardo*.....(2009)
Assistant Professor, Mathematics; Ph.D., University of California, Berkley

Callahan, Janet*.....(2004)
Associate Dean, College of Engineering and Professor, Materials Science and Engineering; Ph.D., University of Connecticut

Campbell, Ann*.....(2004)
Associate Professor, English; Ph.D., Emory University

Campbell, Kristy A.*.....(2005)
Associate Professor, Electrical and Computer Engineering; Ph.D., University of California, Davis

Carnosso, Joan.....(2008)
Associate Professor, Nursing Ph.D., University of Idaho (ABD)
Carter, Deborah*.....(2009)
Professor, Special Education and Early Childhood Studies; Ph.D., University of Oregon
Casper, Mary Frances*.....(2007)
Assistant Professor, Communication; Ph.D., North Dakota State University
Cavey, Laurie*.....(2010)
Assistant Professor, Mathematics; Ph.D., North Carolina 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
Chen, Hao*.....(2010)
Assistant Professor, Electrical and Computer Engineering; Ph.D., Syracuse University
Chenoweth, Timothy*.....(2004)
Associate Professor, Information Technology and Supply Chain Management; Ph.D., Washington State University
Chiasson, John N.*.....(2006)
Graduate Program Coordinator and Associate Professor, Electrical and Computer Engineering; Ph.D., University of Minnesota
Cho, Daehwan*.....(2010)
Assistant Professor, Communication; M.F.A., Southern Illinois University Carbondale
Chyung, Seung Youn (Yonnie)*.....(1997)
Professor, Instructional & Performance Technology; Ed.D., Texas Tech University
Clark, Cynthia*.....(1997)
Professor, Nursing; Ph.D., University of Idaho
Coll, Kenneth M.*.....(1998)
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 Professor, English; Ph.D., University of Utah
Cornell, Kenneth A.*.....(2006)
Graduate Program Coordinator and Associate Professor, Chemistry and Biochemistry; Ph.D., Oregon Health and Sciences University
Corral, Karen.....(2008)
Graduate Program Coordinator and 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

D

Davis, Shoni*.....(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
de Graaff, Marie-Anne*.....(2010)
Assistant Professor, Biological Sciences; Ph.D., Wageningen University
Dinkar, Niharika*.....(2006)
Assistant Professor, Art; Ph.D., State University of New York at Stony Brook
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
Dufty, Alfred M.*.....(1988)
Associate Dean of the Graduate College and Professor, Biological Sciences; Ph.D., State University of New York, Binghamton
Dugan, Eric L. *.....(2009)
Assistant Professor, Kinesiology; Ph.D., Ball State University
Durham, Leslie.....(2006)
Associate Professor, Theatre Arts; Ph.D., University of Kansas
Dykstra, Dewey I. Jr.*.....(1981)
Professor, Physics; Ph.D., University of Texas at Austin

E

Earley, Caroline*.....(2010)
Assistant Professor, Art; M.F.A., University of Wisconsin–Milwaukee
Eggert, Rudolph*.....(1996)
Professor, Mechanical and Biomedical Engineering; Ph.D., State University of New York, Buffalo
Elison-Bowers, Patt*.....(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
Erpelding, Chad*.....(2010)
Assistant Professor, Art; M.F.A., Southern Illinois University Carbondale
Esp, Susan.....(2010)
Assistant Professor, Community and Environmental Health, Ph.D., University of Idaho
Estrem, Heidi*.....(2008)
Associate Professor, English; Ph.D., University of Nevada, Reno
Evans, Cecile B.*.....(2010)
Assistant Professor, Nursing; Ph.D., University of Tennessee Health Science Center

F

Farid, Arvin*.....(2008)
Assistant Professor, Civil Engineering; Ph.D., Northeastern University, Boston
Ferguson, James R.*.....(1996)
Chair and Associate Professor, Mechanical and Biomedical Engineering; Ph.D., Washington State University
Feris, Kevin*.....(2005)
Associate Professor, Biological Sciences; Ph.D., University of Montana
Fitterer, Jill*.....(2006)
Assistant Professor, Art; M.F.A., California State University, Long Beach
Flores, Alegandro N.*.....(2009)
Assistant Professor, Geosciences; Ph.D. Massachusetts Institute of Technology
Forbey, 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
Frary, Megan*.....(2005)
Associate 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
Freemuth, John C.*.....(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

Gallup, V. Lyman*.....(1977)
Associate Professor, Information Technology and Supply Chain Management; Ph.D., University of Oregon
Gao, Yong *.....(2008)
Assistant 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
Gattiker, Thomas*.....(2005)
Associate Professor, Information Technology and Supply Chain Management; Ph.D., University of Georgia
Gehrke, Pamela*.....(1998)
Associate Professor, Nursing; M.S., University of Portland
Gerding, Abigail A.*.....(2008)
Associate Chair for Graduate Programs, Graduate Program Coordinator, and Associate Professor, Nursing; Ph.D., Ohio State University
Geschke, Stefan*.....(2007)
Assistant Professor, Mathematics; Ph.D., Freie Universitat Berlin
Giacomazzi, Andrew*.....(1998)
Chair and Professor, Criminal Justice; Ph.D., Washington State University
Gibson, Terry-Ann 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)
Professor, College of Health Sciences; Ph.D., University of Oregon
Goodman, James A.*.....(2006)
Associate Director, Center for Teaching and Learning and Assistant Professor, Music; Ed.D., University of Illinois at Urbana-Champaign
Grantham, Stephen B.*.....(1982)
Coordinator of Data Quality and Reporting and Associate Professor, Mathematics; Ph.D., University of Colorado
Grassley, Jane S.*.....(2010)
Associate Professor, Nursing; Ph.D., Texas Woman's University
Graugnard, Elton*.....(2010)
Assistant Research Professor, Materials Science and Engineering; Ph.D., Purdue University
Gregory, Anne E.*.....(2002)
Professor, Literacy; Ph.D., Purdue University
Guarino, Joseph C.*.....(2000)
Associate Chair and Professor, Mechanical and Biomedical Engineering; Ph.D., University of Idaho.

H

Hall, Robert Trevor* ..... (2011)
Assistant Professor, Communication; Ph.D., Northwestern University

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

Hannah, Elizabeth..... (2001)
Associate Professor, Community and Environmental Health; D.V.M., University of Florida

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 Associate Professor, English; Ph.D., University of Nebraska

Hansen, Zeynep Kobabiyik ..... (2008)
Professor, Economics; Ph.D., University of Arizona

Harkness, Daniel* ..... (1993)
Professor, Social Work; Ph.D., University of Kansas

Harlander, Jens* ..... (2007)
Associate Professor, Mathematics; Ph.D., University of Oregon

Harvey, Keith* ..... (2000)
Associate Professor, Marketing and Finance; Ph.D., University of Tennessee, Knoxville

Harvey, Samantha C.* ..... (2011)
Assistant Professor, English; Ph.D., Cambridge University

Haws, David R.* ..... (1996)
Associate Professor, Civil Engineering; Ph.D., Brigham Young University

Hay, Robert* ..... (2009)
Special Lecturer, Electrical and Computer Engineering; Ph.D., Boise State University

Heath, Julie* ..... (2007)
Assistant Professor, Biological Sciences; Ph.D., University of Florida

Hemmens, 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)
Assistant 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)
Associate Professor, English; Ph.D., Ohio State University

Hodges, Brian* ..... (2008)
Assistant Professor, Music; D.M.A., University of North Carolina at Gree

Holmes, Janet* ..... (1999)
Professor, English; M.F.A., Warren Wilson College

Holmes, M. Randall* ..... (1991)
Associate Professor, Mathematics; Ph.D., State University of New York at Binghamton

Honts, Charles R.* ..... (1995)
Professor, Psychology; Ph.D., University of Utah

Hourcade, Jack Joseph* ..... (1987)
Graduate Program Coordinator and Professor, Special Education and Early Childhood Studies; Ph.D., University of Missouri, Columbia

Hsu, Yu-Chang* ..... (2011)
Assistant Professor, Educational Technology; Ph.D., The Pennsylvania State University

Hughes, William L.* ..... (2008)
Graduate Program Coordinator and 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

Hurley, Michael * ..... (2010)
Assistant Research Professor, Materials Science and Engineering; Ph.D., University of Virginia

Husting, Virginia* ..... (1999)
Associate Professor, Sociology; Ph.D., University of Illinois at Urbana-Champaign

Hutz, Aida ..... (2010)
Assistant Professor, Counselor Education; Ph.D., Northern Arizona University

Hyatt, Troy* ..... (2011)
Assistant Professor, Accountancy; Ph.D., University of Arizona

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, Daryl E.* ..... (1986)
Director, Interdisciplinary Studies Graduate Program; Ph.D., Michigan State University

Jorcyk, Cheryl* ..... (1998)
Associate Professor, Biological Sciences; Ph.D., Johns Hopkins University

Joshi, Alark* ..... (2010)
Assistant Professor, Computer Science; Ph.D., University of Maryland at Baltimore County

K

Kaiser, Uwe* ..... (2001)
Associate Professor, Mathematics; Ph.D., University of Siegen

Kaupins, Gundars..... (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, Philip P.* ..... (2001)
Associate Professor; Curriculum, Instruction and Foundational Studies; Ph.D., Michigan State University

Kenaley, Bonnie L. Davis ..... (2009)
Assistant Professor, Social Work; Ph.D., University of Albany, State University of New York

Kenny, G. Otis* ..... (1976)
Associate Professor, Mathematics; Ph.D., University of Kansas

Keys, Kathleen* ..... (2004)
Graduate Program Coordinator and Associate Professor, Art; Ph.D., The Ohio State University

Khanal, Mandar* ..... (2000)
Assistant Chair and Associate Professor, Civil Engineering; Ph.D., University of California, Irvine

Kim, Byung-Il* ..... (2006)
Associate Professor, Physics; Ph.D., Seoul National University

Kinney, Richard* ..... (1976)
Professor, Public Policy and Administration; Political Science; Ph.D., University of Notre Dame

Kinzel, Margaret N.* ..... (2000)
Associate Professor, Mathematics; Ph.D., Pennsylvania State University

Klautsch, Richard* ..... (1992)
Chair and Associate Professor, Theatre Arts; Ph.D., Wayne State University

Klein, Joanne* ..... (2001)
Associate Professor, History; Ph.D., Rice University

Knowlton, William B.* ..... (2000)
Graduate Program Coordinator and Professor, Electrical and Computer Engineering, Materials Science and Engineering; Ph.D., University of California, Berkeley

Ko, Kyungduk ..... (2004)
Associate Professor, Mathematics; Ph.D., Texas A&M University

Koeppen, 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)
Professor, Geosciences; Ph.D., Rensselaer Polytechnic Institute

Kuang, Wan* ..... (2005)
Associate 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 Carbondale

Lane, Julie..... (2010)
Assistant Professor, Communication; Ph.D. ,University of Wisconsin-Madison

Lathen, William* ..... (1984)
Professor, Accountancy; Ph.D., Arizona State University

Lee, Jaechoul* ..... (2003)
Associate Professor, Mathematics; Ph.D., University of Georgia

Lee, Jeunghoon..... (2008)
Assistant Professor, Chemistry and Biochemistry; Ph.D., University of Connecticut

Lee, Michael T.* ..... (2011)
Assistant Professor, Accountancy; Ph.D., University of Melbourne

LeMaster, Clifford* ..... (1990)
Chair and Professor, Chemistry and Biochemistry; Ph.D., University of California, Davis

Liley, 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

Lindquist, Paul* ..... (2010)
Assistant Research Professor, Materials Science and Engineering; Ph.D., University of Illinois

Loo, Sin Ming* ..... (2004)
Chair, Graduate Program Coordinator and Associate Professor, Electrical and Computer Engineering; Ph.D., University of Alabama in Huntsville

Loucks, Christine* ..... (1989)
Professor, Economics; Ph.D., Washington State University

Lowe, Scott E.* ..... (2006)
Assistant Professor, Economics; Ph.D., University of California, Santa Barbara

Lubamersky, Lynn* ..... (2001)
Associate Professor, History; Ph.D., Indiana University
Lucas, Shelley* ..... (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
Macomb, Daryl* ..... (2011)
Associate Professor, Physics; Ph.D., Iowa State University
Macy, Rosemary* ..... (2005)
Associate Professor, Nursing; Ph.D.,University of Idaho
Madsen-Brooks, Leslie J.* ..... (2010)
Assistant Professor, History; Ph.D., University of California-Davis
Maher, Matthew* ..... (1989)
Professor, Marketing and Finance; Ph.D., University of Illinois at Urbana-Champaign
Mandell, Ryan* ..... (2010)
Assistant Professor, Art; M.F.A., Indiana University
Markel, Michael* ..... (1990)
Director of Technical Communication and Professor, English; Ph.D., Pennsylvania State University
Marker, Anthony Wayne* ..... (2005)
Associate Professor, Instructional & Performance Technology; Ph.D., Indiana University, Bloomington
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, Susan D.* ..... (2004)
Associate Professor, Literacy; Ph.D., University of Washington
Mason, Susan G.* ..... (2004)
Graduate Certificate Director, Graduate Program Coordinator, and Associate Professor, Political Science; Ph.D., University of Missouri
Mathie, David* ..... (1992)
Professor, Music; D.M.A., University of Georgia
McCain, Gary* ..... (1979)
Chair and Professor, Marketing; Ph.D., University of Oregon
McCarl, Robert S., III ..... (1994)
Professor, Sociology; Ph.D., Memorial University of Newfoundland
McChesney, John W.* ..... (1995)
Associate Professor, Kinesiology; Ph.D., University of Oregon
McClain, Lisa* ..... (2001)
Director, Gender Studies and Associate Professor, History; Ph.D., University of Texas
McClellan, John G.* ..... (2009)
Assistant Professor, Communication; Ph.D., University of Colorado at Boulder
McCorkle, Suzanne* ..... (1978)
Director, Conflict Management Services, Graduate Program Coordinator, 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)
Associate Professor, Management; Ph.D., University of Illinois at Urbana Champaign
McLuskie, C. Ed Jr.* ..... (1981)
Professor, Communication; Ph.D., University of Iowa
McNamara, James P.* ..... (1997)
Professor, Geosciences; M.S., Syracuse University
McNeil, Larry* ..... (1999)
Professor, Art; M.F.A., University of New Mexico
McNatt, D. Brian.* ..... (2010)
Assistant Professor, Management; Ph.D., University of Iowa
Mead, Jodi L.* ..... (2000)
Graduate Program Coordinator and Professor, Mathematics; Ph.D., Arizona State University
Medidi, Murali* ..... (2008)
Chair and Professor, Computer Science; Ph.D., University of Central Florida
Medidi, Sirisha* ..... (2008)
Assistant Professor, Computer Science; Ph.D., Arizona State University
Michaels, Paul* ..... (1993)
Professor, Geosciences; Ph.D., University of Utah
Miller, Nicholas* ..... (1993)
Chair and Professor, History; Ph.D., Indiana University
Miller, Rickie* ..... (1992)
Associate Chair and Associate Professor, Curriculum, Instruction and Foundational Studies; Ph.D., New Mexico State University
Miller, Sondra M.* ..... (2006)
Assistant Professor, Civil Engineering; Ph.D., University of Iowa
Minch, Robert P.* ..... (1986)
Professor, Information Technology and Supply Chain Management; Ph.D., Texas Tech University
Mirsky, Rebecca ..... (2006)
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
Moll, Amy J.* ..... (2000)
Interim Dean and Professor, Materials Science and Engineering; Ph.D., University of California, Berkeley
Molumby, Nicole* ..... (2005)
Associate Professor, Music; D.M.A., Ohio State University
Moncrief, Gary F.* ..... (1976)
Professor, Political Science; Ph.D., University of Kentucky
Moneyhun, Clyde* ..... (2011)
Assistant Professor, English; Ph.D., University of Arizona
Mooney, Sian* ..... (2006)
Professor, Economics; Ph.D., Oregon State University
Moore, Rick Clifton* ..... (1994)
Chair and Associate Professor, Communication; Ph.D., University of Oregon
Moreau, Leslie M.* ..... (2007)
Assistant Professor, Music; D.M.A., Arizona State University
Morgan, Elizabeth ..... (2011)
Assistant Professor, Psychology; Ph.D., University of California–Santa Cruz
Most, Marshall* ..... (1987)
Associate Professor, Communication; M.A., Boise State University
Mueller, David G.* ..... (2001)
Associate Professor, Criminal Justice; Ph.D., Washington State University
Müllner, Peter* ..... (2004)
Professor, Materials Science and Engineering; Ph.D., Swiss Federal Institute of Technology
Munger, James C.* ..... (1988)
Associate Vice-President, Academic Planning and Professor, Biological Sciences; Ph.D., University of Arizona
Munger, Roger* ..... (2001)
Associate Chair and Professor, English; Ph.D., Rensselaer Polytechnic Institute
Murgel, George A.* ..... (1996)
Graduate Program Coordinator and Associate Professor, Civil Engineering; Ph.D., Cornell University

N

Nadelson, Louis* ..... (2008)
Assistant Professor, Curriculum, Instruction and Foundational Studies; Ph.D., University of Nevada, Las Vegas
Nadelson, Sandra* ..... (2008)
Associate Professor, Nursing; Ph.D., University of Nevada, Las Vegas
Napier, Nancy K.* ..... (1986)
Director of International Business Consortium and Programs, College of Business and Economics; Professor, Management; Ph.D., Ohio State University
Nelson-Marsh, Natalie* ..... (2005)
Graduate Program Coordinator and Assistant Professor, Communication; Ph.D., University of Colorado
Neri, Janice L.* ..... (2006)
Associate Professor, Art; Ph.D., University of California, Irvine
Neupert, Kent* ..... (2004)
Professor, Management; Ph.D., University of Western Ontario
Northrup, Clyde J.* ..... (1998)
Professor, Geosciences; Ph.D., Massachusetts Institute of Technology
Novak, E. Shawn* ..... (1996)
Associate Professor, Accountancy; Ph.D., University of Houston
Novak, Stephen* ..... (1993)
Professor, Biological Sciences; Ph.D., Washington State University

O

O'Connor, Jacqueline* ..... (2001)
Professor, English; Ph.D., University of California, Davis
Odahl, Charles M.* ..... (1975)
Professor, History; Ph.D., University of California, San Diego
Olsen-Smith, Steven* ..... (2000)
Associate Professor, English; Ph.D., University of Delaware
Orr, Martin* ..... (1998)
Chair and Associate Professor, Sociology; Ph.D., University of Oregon
Osguthorpe, Richard* ..... (2005)
Associate Professor, Curriculum, Instruction and Foundational Studies; Ph.D., University of Michigan
Oxford, Julia Thom* ..... (2000)..
Director, INBRE/Biomolecular Research and Professor, Biological Sciences; Ph.D., Washington State University, Pullman

P

Parkinson, Del R.* ..... (1985)
Professor, Music; D.M., Indiana University
Parrett, William H.* ..... (1996)
Director, Center for School Improvement and Professor, Curriculum, Instruction and Foundational Studies; Ph.D., Indiana University
Patrick, Steven* ..... (1991)
Professor, Sociology; Ph.D., University of California, Riverside
Payne, Michelle M.* ..... (1997)
Chair and Professor, English; Ph.D., University of New Hampshire
Peariso, Craig * ..... (2009)
Assistant Professor, Art; Ph.D., State University of New York at Stony Brook

Peele, Thomas*.....(2004)
Associate Director of Writing Program and Associate Professor, English; Ph.D., University of South Florida
Pelton, John R.*.....(1981)
Dean, Graduate College and Professor, Geosciences; Ph.D., University of Utah
Penry, Tara*.....(2000)
Associate Professor, English; Ph.D., Fordham University
Peralta-Nash, Claudia*.....(2011)
Chair and Associate Professor, Bilingual Education; Ph.D., University of Colorado at Boulder
Perkins, Ross*.....(2008)
Assistant Professor, Educational Technology; Ph.D., Virginia Polytechnic Institute and State University
Petlichkoff, Linda M.*.....(1987)
Professor, Kinesiology; Ph.D., University of Illinois at Urbana-Champaign
Petranek, Laura Jones *.....(2005)
Associate Professor, Kinesiology; Ph.D., University of South Carolina, Columbia
Pfeiffer, Ronald*.....(1979)
Chair and Professor, Kinesiology; Ed.D., Brigham Young University
Pierce, Jennifer*.....(2005)
Associate Professor, Geosciences; Ph.D., University of New Mexico
Plew, Mark G.*.....(1984)
Chair, Graduate Program Coordinator and Professor, Anthropology; Ph.D., Indiana University, Bloomington
Plumlee, Donald*.....(2008)
Assistant Professor, Mechanical and Biomedical Engineering; Ph.D., University of Idaho
Pool, Juli Lull*.....(2007)
Graduate Program Coordinator and Assistant Professor, Special Education and Early Childhood Studies; Ph.D., University of Oregon
Punnoose, Alex*.....(2002)
Professor, Physics; Ph.D., Aligarah Muslim University of India
Purdy, Craig A.*.....(1987)
Associate Professor, Music; M.M., New England Conservatory

Q

Qu, Leming*.....(2002)
Associate Professor, Mathematics; Ph.D., Purdue University

R

Rafla, Nader*.....(1996)
Associate Professor, Electrical and Computer Engineering; Ph.D., Case Western Reserve University
Raghani, Pushpa*.....(2010)
Assistant Professor, Physics; Ph.D.,Jawaharlal Nehru Technological University
Ramirez-Dhoore, Dora Alicia*.....(2008)
Assistant Professor, English; Ph.D., University of Nebraska, Lincoln
Ransdell, Lynda B.*.....(2004)
Professor, Kinesiology; Ph.D., Arizona State University
Ray, Nina Marie*.....(1986)
Professor, Marketing and Finance; Ph.D., Texas Tech University
Raymond, Gregory A.*.....(1974)
Professor, Political Science; Ph.D., University of South Carolina
Reavy, Kathleen*.....(2000)
Associate Professor, Nursing; Ph.D., University of Utah
Reeder, Heidi M.*.....(2000)
Associate Professor, Communication; Ph.D., Arizona State University
Reischl, Uwe*.....(2002)
Director, Center for Health Policy and Professor of Health Studies; Ph.D., University of California, Berkeley
Renner, Celia J.*.....(2008)
Professor, Accountancy; Ph.D., University of Colorado at Boulder
Reza-Lopez, Elva*.....(2008)
Assistant Professor, Bilingual Education; Ph.D., New Mexico State University
Rice, Kerry Lynn*.....(2006)
Chair and Assistant Professor, Educational Technology; Ed.D., Boise State University
Rickels, David *.....(2009)
Assistant Professor, Music; D.M.A., Arizona State University
Roark, Anthony P.*.....(2005)
Associate Dean of the College of Arts and Sciences and Professor, Philosophy; Ph.D., University of Washington
Robbins, Bruce*.....(1990)
Graduate Program Coordinator and Associate Professor, English; Ph.D., Indiana University
Robertson, Ian C.*.....(2000)
Graduate Program Coordinator and Associate Professor, Biological Sciences; Ph.D., Simon Fraser University, Burnaby, B.C., Canada
Rodenhiser, Roy.....(2008)
Director, School of Social Work and Professor, Social Work; Ed.D, University of Southern California, Los Angeles
Rodriquez, Arturo.....(2007)
Assistant Professor, Bilingual Education; Ph.D., New Mexico State University
Rohn, Troy*.....(2000)
Professor, Biological Sciences; Ph.D., University of Washington
Rohrig, Kathleen L. Ayers*.....(1983)
Associate Professor, Mathematics; Ph.D., University of Idaho
Romero, Sergio*.....(2008)
Assistant Professor, Sociology; Ph.D., University of Oregon
Rudd, Robert L.....(1985)
Associate Professor, Communication; Ph.D., University of Oregon
Rudin, Mark*.....(2008)
Vice President for Research and Professor, Chemistry and Biochemistry; Ph.D., Purdue University
Rushing-Raynes, Laura*.....(1998)
Associate Professor, Music; D.M.A., University of Arizona
Russell, Dale D.*.....(1995)
Professor, Chemistry and Biochemistry; Ph.D., University of Arizona, Tucson

S

Sabick, Michelle*.....(2002)
Associate Professor, Mechanical and Biomedical Engineering; Ph.D., University of Iowa
Sadler, Jonathan*.....(2007)
Assistant Professor, Art, M.F.A.; The School of the Museum of Fine Arts, Boston and Tufts University, Summerville
Samball, Michael*.....(1976)
Associate Professor, Music; D.M.A., North Texas State University
Sanders, Cynthia K.*.....(2004)
Associate Professor, Social Work; Ph.D., Washington University St. Louis
Sanderson, Irene (Rena)*.....(1994)
Associate Professor, English; Ph.D., University of Colorado at Boulder
Sarin, Shikhar*.....(2002)
Professor, Marketing and Finance; Ph.D., University of Texas at Austin
Sasaki, Kotaro*.....(2009)
Assistant Professor, Mechanical and Biomedical Engineering; Ph.D., University of Texas at Austin
Saunders, David*.....(1997)
Professor, Music; D.M.A., State University of New York at Stony Brook
Saxena, Vishal*.....(2010)
Assistant Professor, Electrical and Computer Engineering; Ph.D., Boise State University
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
Schmitz, Mark*.....(2004)
Graduate Program Coordinator and Associate Professor, Geosciences; Ph.D., Massachusetts Institute of Technology
Schooley-Pettis, Diane*.....(1989)
Associate Dean, College of Business and Economics and Professor, Marketing and Finance; Ph.D., University of Colorado at Boulder
Schottelkorb, April.....(2010)
Assistant Professor, Counselor Education; Ph.D., University of North Texas
Schrader, Cheryl B.*.....(2003)
Associate Vice President for Strategic Research Initiatives and Professor, Electrical and Computer Engineering; Ph.D., University of Notre Dame
Schrader, 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, Pennie S.*.....(1990)
Professor, Psychology; Ph.D., University of New Mexico
Senocak, Inanc*.....(2008)
Assistant Professor, Mechanical and Biomedical Engineering; Ph.D., University of Florida
Serpe, Marcelo*.....(1998)
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*.....(1974)
Dean, College of Business and Economics and Professor, Information Technology and Supply Chain Management; Ph.D., University of Oregon
Shimon, Jane*.....(2001)
Associate Professor, Kinesiology; Ed.D., University of Northern Colorado
Shuck, Gail*.....(2001)
Associate Professor, English; Ph.D., University of Arizona
Shurtleff-Young, Cheryl*.....(1978)
Graduate Program Coordinator and Professor, Art; M.A., University of Oregon
Simonson, Shawn R.*.....(2008)
Assistant Professor, Kinesiology; Ed.D., University of Northern Colorado
Singletary, Ted J.*.....(1989)
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)
Associate Professor, Electrical and Computer Engineering; Ph.D., University of Idaho; Ph.D., State University of New York, Albany.
Smith, Kirk*.....(1993)
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)
Graduate Program Coordinator and Assistant Professor, Educational Technology; Ed.D., Boise State University

Snow-Gerono, Jennifer L.* ..... (2003)
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

Solan, 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, Columbus

Spear, Caile 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

Sridhar, Venkataramana R. ..... (2007)
Assistant Professor, Civil Engineering; Ph.D., Oklahoma State University

Staley, Scott ..... (1989)
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* ..... (2003)
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* ..... (1993)
Professor, Criminal Justice; Ph.D., Washington State University

Streeter, Margaret* ..... (2007)
Associate Professor, Anthropology; Ph.D., University of Missouri-Columbia

Sugheir, Jeffrey S. ..... (2008)
Assistant Professor, Management; Ph.D., Rensselaer Polytechnic Institute

Sutherland, Leonie* ..... (2004)
Assistant Professor, Nursing; Ph.D., University of California, San Diego

T

Tabor, Sharon W.* ..... (1998)
Professor, Information Technology and Supply Chain Management; Ph.D., University of North Texas

Tenne, Dmitri* ..... (2006)
Assistant Professor, Physics; Ph.D., Russian Academy of Sciences

Tennyson, 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

Thiede Keith W.* ..... (2006)
Graduate Program Coordinator and Professor, Curriculum, Instruction, and Foundational Studies; Ph.D., University of Washington

Tinker, Juliette* ..... (2004)
Assistant Professor, Biological Sciences; Ph.D., University of Iowa

Toevs, Sarah E.* ..... (2000)
Chair and Professor, Community and Environmental Health; Ph.D., University of Utah

Traynowicz, Laurel* ..... (1981)
Associate Professor, Communication; Ph.D., University of Iowa

Turner, Lee Ann* ..... (1996)
Associate Professor, Art; Ph.D., University of Pennsylvania

Twight, Charlotte* ..... (1986)
Professor, Economics; Ph.D., University of Washington

U

Udall, Brady* ..... (2008)
Associate Professor, English; M.F.A., University of Iowa

Uehling, Karen S.* ..... (1981)
Associate Professor, English; M.A., University of California, Davis

Ubic, Rick* ..... (2007)
Associate Research Professor, Materials Science and Engineering; Ph.D., The University of Sheffield, UK

Uh, Gang-Ryung* ..... (2002)
Assistant Professor, Computer Science; Ph.D., Florida State University

V

van Wijk, Kasper* ..... (2006)
Graduate Program Coordinator and Assistant Professor, Geophysics; Ph.D., Colorado School of Mines

Vaughn, Ross E.* ..... (1973)
Associate Dean, College of Education and Professor, Kinesiology; Ph.D., Washington State University

Villachica, Steven W.* ..... (2007)
Associate Professor, Instructional & Performance Technology; Ph.D., University of Northern Colorado

W

Walen, 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

Warner, Don* ..... (2002)
Assistant Professor, Chemistry and Biochemistry; Ph.D., University of Michigan

Weiler, Dawn M.* ..... (2008)
Associate Professor, Nursing; Ph.D., University of Arizona

Welch, Thad B.* ..... (2008)
Professor, Electrical and Computer Engineering; Ph.D., University of Colorado, Colorado Springs

Westover, Jeffrey W. * ..... (2008)
Associate Professor, English; Ph.D., Boston College

White, Harry* ..... (1988)
Professor, Marketing and Finance; Ph.D., Texas A & M University

White, Merlin M.* ..... (2006)
Associate Professor, Biological Sciences; Ph.D., University of Kansas

Wieland, Mitchell* ..... (1996)
Professor, English; M.F.A., University of Alabama

Wilhelm, Jeffrey D. ..... (2003)
Professor, English; Ph.D., University of Wisconsin, Oshkosh

Wilkins, David E.* ..... (2000)
Chair, Graduate Program Coordinator, Earth Science and Associate Professor, Geosciences; Ph.D., University of Utah

Willerton, David Russell* ..... (2005)
Associate Professor, English; Ph.D., Texas Tech University

Willison, Scott* ..... (1997)
Director, Center for Multicultural and Educational Opportunities and Professor, Curriculum, Instruction and Foundational Studies; Ph.D., Indiana University

Wingett, Denise G.* ..... (2003)
Chair and Associate Professor, Biological Sciences; Ph.D., Washington State University

Winiecki, Donald J.* ..... (1996)
Professor, Instructional & Performance Technology; Ph.D. Central Queensland University; Ed.D., Texas Tech University

Witt, Stephanie L.* ..... (1989)
Director, Public Policy Center and Professor, Political Science; Public Policy and Administration; Ph.D., Washington State University

Wolfe, Marcus H.* ..... (2010)
Assistant Professor, Music; D.M.A., University of Illinois at Urbana Champaign

Wollheim, Peter* ..... (1989)
Graduate Program Coordinator and Associate Professor, Communication; Ph.D., McGill University

Wood, Jennifer E.* ..... (2006)
Associate Professor, Art; M.F.A., University of Miami

Woods, Lee* ..... (2007)
Assistant Professor, Special Education and Early Childhood Studies; Ph.D., University of Oklahoma

Woods, Shelton* ..... (1994)
Associate Dean, College of Social Sciences and Public Affairs and Professor, History; Ph.D., University of California, Los Angeles

Wright, Grady* ..... (2007)
Assistant Professor, Mathematics; Ph.D., University of Colorado at Boulder

Wu, Huei-Hsia* ..... (2002)
Assistant Professor, Sociology; Ph.D., University of Texas at Austin

Wyzard, Constance* ..... (1993)
Professor, Educational Technology; Ph.D., University of Nebraska, Lincoln

Y

Yang, Dazhi* ..... (2011)
Assistant Professor, Educational Technology; Ph.D., Purdue University

Yeh, Jyh-haw* ..... (2000)
Assistant Professor, Computer Science; Ph.D., University of Florida

Young, Richard A.* ..... (1994)
Chair and Professor, Art; M.F.A., Washington State University

Youngsman, John* ..... (2011)
Assistant Professor, Material Sciences and Engineering; Ph.D., Washington State University

Ysursa, John M.* ..... (2007)
Visiting Assistant Professor History; Ph.D., University of California, Riverside

Yun, Ilhong* ..... (2007)
Assistant Professor, Criminal Justice; Ph.D., Sam Houston State University

Yurke, Bernard * ..... (2008)
Research Professor, Materials Science and Engineering; Ph.D., Cornell University

Z

Zaerr, Linda Marie* ..... (1987)
Professor, English; Ph.D., University of Washington

Ziker, John P.* ..... (2003)
Assistant Professor, Anthropology; Ph.D., University of California, Santa Barbara

Zirinsky, Michael P.* ..... (1973)
Professor, History; Ph.D., University of North Carolina Chapel Hill

Zubik-Kowal, Barbara ..... (2002)
Professor, Mathematics; Ph.D., Adam Mickiewicz University

Emeriti Graduate Faculty

Emeritus faculty who were members of the Graduate Faculty prior to retirement who have been awarded emeritus status by the Graduate Dean

NOTE: The date in parentheses is the year of first graduate appointment.
*__May chair graduate committees.__

Affleck, Stephen, Ph.D., Civl Engr (Emeritus)* ..... (2009)
Andersen, Rudy, D.D.S., Hlth Sci (Emeritus)..... (2003)
Barr, Robert, Ph.D., Educ (Emeritus)* ..... (1994)
Boyer, Dale, Ph.D., Engl (Emeritus) ..... (1968)
Brudenell, Ingrid, Ph.D.,Nurs (Emeritus)* ..... (1991)
Cade, Tom, Ph.D., Biol Sci (Emeritus)* ..... (1989)
Colby, Conrad, Ph.D., Hlth Sci (Emeritus) ..... (1970)
Cox, David, Ph.D., Instrl & Perf Tech (Emeritus)..... (1992)
Cox, Marvin, Ph.D., Comm (Emeritus)* ..... (1977)
Donaldson, Paul R, Ph.D., Geos (Emeritus)* ..... (1975)
Douglas, Dorothy, Ph.D., Biol Sci (Emeritus)* ..... (1987)
Harrison, Teresa Delgadillo, Ed.D., Educ (Emeritus)* (1997)
Hausrath, Alan R, Ph.D., Math (Emeritus) ..... (1977)
Jones, Errol, Ph.D., Hist (Emeritus)* ..... (1982)
Juola, Robert, Ph.D., Math (Emeritus) ..... (2004)
Lambert, Carroll, Ed.D., Educ (Emeritus)..... (1976)
LaRiviere, Sara, Ed.D., Hlth Studies (Emeritus)..... (1989)
Lindsey, Melinda, Ph.D., Spec Educ (Emeritus)* ..... (1987)
Long, Elaine M. Ph.D., Com & Envir Hlth (Emeritus) (1975)
Luke, Robert A., Ph.D., Physics (Emeritus) ..... (1971)
Lyons, Lamont, Ed.D., Educ (Emeritus)*..... (1977)
McCloskey, Richard, Ph.D., Biol Sci (Emeritus)* ..... (1976)
Miller, Margaret, Ph.D., Coun Educ (Emeritus)..... (1994)
Nelson, Anne Marie, Ph.D., Coun Educ (Emeritus). (1970)
Sims, Robert, Ph.D., Hist (Emeritus)* ..... (1970)
Skoro, Charles, Ph.D., Educ (Emeritus)* ..... (2011)
Spinosa, Claude, Ph.D., Geos (Emeritus)* ..... (1970)
Stokes, Lee, Ph.D., Hlth Sci (Emeritus)..... (1988)
Thorson, Carolyn, Ph.D., Educ Tech (Emeritus)..... (1987)
Weatherby, James, Ph.D., Pub Pol & Admin (Emeritus)* (1989)
White, Craig, Ph.D., Geos (Emeritus)*..... (1980)
Wicklow-Howard, Marcia, Ph.D., Biol Sci (Emeritus)* (1975)
Wood, Spencer H., Ph.D., Geos (Emeritus)*..... (1977)

Adjunct Graduate Faculty

Part-Time Faculty, Faculty from Other Universities, and Personnel from Affiliated Agencies

NOTE: The date in parentheses is the year of first graduate appointment.
*__May chair graduate committees.__

A

Alileche, Abdelkrim, Ph.D., Biol Sci..... (2010)
Apel, Ted, Ph.D., Music ..... (2008)

B

Baehr, Paul, M.D., Kines..... (2002)
Ball, Christopher L., Ph.D., Biol Sci ..... (2006)
Barnes, David W., Ph.D., Instrl & Perf Tech ..... (2010)
Bart, Jonathan, Ph.D., Biol Sci ..... (1997)
Barros-Bailey, Mary, Ph.D., Coun Educ..... (2010)
Beck, Dennis Ph.D., Educ Tech* ..... (2009)
Bernard, Pamela Hardaway, M.S., Hlth Sci..... (2006)
Betancourt, Julio, Ph.D., Geos ..... (2011)
Bhatnagar, Rashmi, Ph.D., Engl ..... (2006)
Bildstein, Keith Louis, Ph.D., Biol Sci ..... (2006)
Blacklock, Karen, Ed.D., Educ ..... (2003)
Bond, Laura, M.S., Biol Sci ..... (2001)
Bourland, William, M.D., Biol Sci..... (2010)
Brawer, Judith M, J.D., Hlth Sci ..... (2006)
Brewer, Kenneth, ABD/Ph.D., Biol Sci ..... (2002)
Brown, Karen, Ph.D., Art*..... (2004)
Bryant, Amy, Ph.D., Biol Sci ..... (2004)
Bunning, Kimberly, Ph.D., Educ*..... (2008)
Butler, JoAnn, J.D., Pub Pol & Admin ..... (2011)

C

Cadwallader, Kara, M.D., Hlth Sci ..... (2006)
Campbell, Mary, Ed.S., Coun Educ ..... (2010)
Carlisle, Jay D., Ph.D., Biol Sci*..... (2006)
Chadwick, Daniel G., J.D., Pub Pol & Admin..... (1996)
Chandler, David, Ph.D., Civil Engr..... (2009)
Chase, Amanda, M.S., Educ Tech..... (2007)
Chilson, Jodi Nicole, M.F.A., Engl*..... (2007)
Ching, Yu-Hui, Ph.D., Educ Tech ..... (2011)
Christensen, Fred, M.B.A., C.P.A., C.G.F.M., Account ... (2003)
Christensen, Matthew T., J.D., Pol Sci..... (2009)
Clark, John L., Ph.D., Biol Sci ..... (2010)
Cobbs, Hartzell J., D.Religion, Hlth Sci ..... (2005)
Connelly, John, Ph.D., Biol Sci..... (2011)
Cole, Teresa, Ph.D., Comp Sci* ..... (2007)
Corbin, Robert, M.A., Soc..... (1990)
Cossel, John Jr., D.A., Biol Sci ..... (2011)
Cottle, William B., Ph.D., Spec Educ & Early..... (2009)
Crosby, Benjamin T., Ph.D., Geos ..... (2010)
Cross, Kelly L., Ed.D.; Educ..... (2008)
Curry, Stacie L., Ed.D., Educ ..... (2004)
Curtin, Michael J., M.D., Kines..... (2011)

D

Dare, Matthew, Ph.D., Biol Sci* ..... (2002)
Daughdrill, Gary W., Ph.D., Biol Sci..... (2004)
Davydov, Vladimir I., Ph.D., Geos*..... (1999)
Delana, Patrick E., Ph.D., Bus & Econ..... (2011)
DeLoose, Stacey, M.E.T., Educ Tech..... (2010)
Dickelman, Gary J., M.A., Instrl & Perf Tech..... (2004)
Donovan, Sean M., Ph.D., Mat Sci* ..... (2005)
Dormant, Diane, Ph.D., Instrl & Perf Tech ..... (2010)
Dove, Teresa, Ed.D., Educ Tech ..... (2011)
Dunaway, Gerald F., Ph.D., Hlth Sci..... (2003)

E

Earnst, Susan, Ph.D., Biol Sci.....(1997)
Eberle, David W., Ph.D., Hist..... (2006)
Eldridge, David, Ph.D., Biol Sci*.....(2001)
Elgethun, Kai, Ph.D., M.P.H., Hlth Sci..... (2006)
Emerson, Mark, M.Div., ABD/Ph.D, Hlth Sci .....(2001)
Emmons, Alexandra, M.F.A., Art ..... (2006)
Ensley, Mary L., M.A., Coun Educ..... (1996)

F

Farris, Ann, Ed.D., Educ ..... (2005)
Feldman, Murray, J.D., Pub Pol & Admin ..... (1998)
Fernie, Kim, Ph.D., Biol Sci ..... (2011)
Ferrer, Miguel, Ph.D., Biol Sci ..... (2011)
Franklin, Cheryl A, Ph.D., Educ*..... (2008)
Fischer, Michael, D.M.A., Music ..... (2002)
Fischer, Richard, Ph.D., Biol Sci..... (2008)
Fisher, Sara Mae, M.P.A., Disput Resoltn..... (2005)
Flannelly, Susanne, Ed.D., Educ Tech ..... (2011)
Floerchinger-Franks, Ginger, D.P.H., Hlth Sci..... (2005)
Flyer, Natasha, Ph.D., Math ..... (2011)
Forsman, Eric, Ph.D., Biol Sci ..... (2007)
Frederick, Judy Barker, M.A., Hlth Sci..... (2005)
Freed, Jennifer, Ph.D., Educ Tech ..... (2011)
Fricke, Nancy, B.S., Hlth Sci..... (2004)
Fulcher, Russell M., M.B.A., Mgmt .....(2001)
Fuller, Mark R., Ph.D., Biol Sci* .....(1992)
Furlong, Kirsten M., M.F.A., Art*..... (2005)

G

Gambliel, Herve Albert, Ph.D., Biol Sci..... (2003)
Gast, Marlene, Ph.D. Biol Sci ..... (2006)
Gayeski, Diane, Ph.D., Instrl & Perf Tech ..... (1999)
Gelletly, Susan K., M.D, Hlth Sci..... (2003)
Georgeson, Yvonne L, M.A., Engl ..... (2005)
Gerber, Linda, M.A., Hlth Sci ..... (2002)
Germino, Matthew, Ph.D., Biol Sci..... (2009)
Gerstein, Jaclyn, Ed.D., Educ Tech..... (2010)
Gibson, David, Ed.D., Educ Tech..... (2007)
Gillerman, Virginia S., Ph.D., Geos..... (2010)
Girvan, Georgia, M.H.E., Hlth Sci..... (2006)
Glenn, Nancy, Ph.D., Geos* ..... (2008)
Gomez, Luis Eduardo, LL.M., Mod Lang ..... (2003)
Gomez-Frith, Alma, M.F.A., Art ..... (2006)
Goyal, Sudhir Kumar, Ph.D., Civil Engr ..... (2010)
Gray, Gayle, M.H.S., Hlth Sci ..... (2005)
Greber, Brian, Ph.D., CoBE Grad Studs..... (2010)
Greenberg, Alvin, Ph.D., Engl ..... (2005)
Greenspan, Valeda, Ph.D., Nurs* ..... (2005)
Gregory, Bayard O., Ph.D., Disput Resoltn ..... (2004)

H

Hahn, Christine, M.D., Hlth Sci..... (1998)
Hale, Aileen, Ed.D, Nurs..... (2009)
Hall, Kimberly Diane, Ed.D., Educ Tech ..... (2010)
Haney, Matthew, Ph.D., Geos*..... (2010)
Harper, Joel T., Ph.D., Geos..... (2010)
Harris, Charles, Ph.D., Biol Sci ..... (2002)
Hatten, Steven A., M.S., Mech & Biomed Engr..... (2005)
Hawkins, Nina, M.L.S., Educ ..... (1992)
Heathcock, Alan, M.F.A., Engl ..... (2004)
Henbest, Margaret, M.S., Hlth Sci ..... (1998)
Horton, Robert J., M.S., Instrl & Perf Tech ..... (2005)
House, Kendall V, Ph.D., Anth* ..... (2007)
Hughes, Nikki J., Ph.D., Kines..... (2006)
Hutchinson, Donna, Ed.D., Educ Tech ..... (2007)

Adjunct Graduate Faculty

I

Ilett, Frank Jr., M.B.A., Account ... (1996)
Itkonan, Liisa, Ph.D., Soc ... (1998)

J

Jaeger, Norma D., M.S., Crim Just ... (2004)
Janio, Jarek, Ph.D., Edu Tech ... (2010)
Jarocki, William L., M.P.A., Pub Pol & Admin ... (1998)
Jenkins, Susan, Ph.D., Educ ... (2001)
Johnson, Chris, M.P.H., Hlth Sci ... (2003)
Johnson, Gary S., Ph.D., Civil Engr ... (2009)
Jones, Wilma L., Ed.D., C & I Found Studies ... (2006)

K

Keeble, John, M.F.A., Engl ... (2006)
Keller-Peck, Cynthia, Ph.D., Biol Sci ... (2002)
Kerns-Blain, Angeline, M.A., Soc ... (1990)
Kiff, Lloyd Francis, M.A., Biol Sci ... (1995)
Kinter, Cecilia Lynn, Ph.D., Biol Sci ... (2006)
Knapp, James M.S.W., Soc Wrk ... (1993)
Knick, Steven T. Ph.D., Biol Sci* ... (1990)
Knowles, Todd Allen, Ed.D., Educ ... (2001)
Knox, Ellis (Skip), Ph.D., Hist ... (1990)
Kochert, Michael, M.S., Biol Sci ... (1987)
Kushlan, Diane, M.C.P., Pub Policy & Admin ... (2008)

L

Laughlin, Kevin, Ph.D., C & I Found Studies ... (2006)
Laverson, Steve, M.D., Kines ... (2007)
Leavell, Daniel, Ph.D., Biol Sci ... (2002)
Leon, Arturo S., Ph.D., Civil Engr ... (2009)
Letourneau, Therese, Ph.D., Educ Tech ... (2010)
Leu, Matthias, Ph.D., Biol Sci ... (2002)
Liberty, Lee, M.S., Geos* ... (2004)
Lind, Bonnie, M.S., Hlth Sci ... (2001)
Louis, Galen, M.S., Hlth Sci ... (1996)
Luce, Charles, Ph.D., Geos ... (2005)

M

MacGregor, Carol, Ph.D., Hist ... (1998)
Mack, Richard N., Ph.D., Biol Sci ... (2007)
Malama, Bwalya, Ph.D., Geos* ... (2009)
Marks, Danny, Ph.D., Geos* ... (2009)
Martin, Sue, M.S.W.; Soc Wrk ... (2007)
Martini, MaryAnn, M.A., Educ ... (2000)
Marsh, Kevin R., Ph.D., Hist ... (2002)
mcclellan, erin, Ph.D.,Comm ... (2010)
McClure, Kenneth R., J.D., Pub Pol & Admin ... (1997)
McGavran, Patricia, Ph.D., Hlth Sci ... (2001)
McKean, Jim, Ph.D., Geos ... (2010)
McNeel, Steven C., Ph.D., Hist ... (2003)
Miller, Alison, M.A., Hlth Sci ... (2000)
Miller, Beverly, M.A., Hist ... (1998)
Mishra, Rama, Ph.D., Math* ... (2007)
Mitten, Joanne, M.S., Hlth Sci ... (1999)
Moeller, John R., Ph.D., Hlth Sci ... (2003)
Mondin, Gregory, Ph.D., Kines ... (2002)
Moore, Heber G., Ph.D., Instrl & Perf Tech ... (1996)
Moore, James R., M.S., Kines ... (2001)
Morgan, Clay, M.F.A., Engl* ... (2011)
Moss, Charles W., M.P.A., Pub Pol & Admin ... (2002)

N

Newcombe, David, Ph.D., Biol Sci ... (2010)
Noonan, Elizabeth (Bonnie), M.S., Educ ... (1994)

O

Olin, Paul H., Ph.D., Geos ... (2011)
Olsen, Thomas H., Ed.D., C & I Found Studies ... (2001)
Olson, Richard D., Ph.D., Biol Sci ... (1997)
Olson, Richard, Ph.D., Hlth Sci ... (1997)
Ordmandy, Joan, M.S.Ed., Hlth Sci ... (2004)

P

Paris, Anthony, J., Ph.D., Mech & Biomed Engr ... (2001)
Park, Susan, J.D., Mgmt ... (1999)
Perry, Terrell, Ed.D., Instrl & Perf Tech ... (2003)
Peterson, Dave, M.A., Hist ... (2002)
Phelps, Ruth, Ph.D., Educ ... (1994)
Plasket, Donna, Ph.D., Educ ... (1996)
Pilliod, David, Ph.D., Biol Sci* ... (2008)
Pond, Robert C., Ph.D., Mat Sci* ... (2011)
Powell, Linda, M.S., Hlth Sci ... (2000)
Prinzing, Dan, Ph.D., C & I Found Studies ... (2006)

R

Rachlow, Janet, Ph.D., Biol Sci* ... (2010)
Rasmussen, John, Ph.D., Biol Sci ... (2010)
Rausch, Joseph, Ph.D., Biol Sci ... (2010)
Raoux, Simone, Ph.D., Mat Sci & Engr ... (2008)
Reese, Melanie J., Ph.D., Disput Resoltn ... (2008)
Ricklefs, Robert, Ph.D., Biol Sci ... (2011)
Rodgers, David W., Ph.D., Geos ... (1987)
Rosentreter, Roger, Ph.D., Biol Sci ... (1987)
Ryan, Randall, Ph.D., Biol Sci ... (1998)

S

Sallabanks, Rex, Ph.D., Biol Sci* ... (1994)
Salo, Lucinda F., Ph.D., Biol Sci ... (2003)
Schamp, Cindy, M.A, Hlth Sci ... (1998)
Schiappa, Tamra, Ph.D., Geos ... (1999)
Schlee, Conni, Ph.D., Elem Educ ... (2002)
Schmitz, David F, M.D., Comm & Environ Hlth ... (2009)
Schroeder, Barbara, Ed.D., Educ Tech ... (2010)
Seyfried, Mark, Ph.D. Geos ... (1993)
Sforza, Rene, Ph.D., Biol Sci ... (2010)
Silak, Cathy, J.D., Pub Pol ... (2006)
Silva, Chandra,, Ph.D., Hist ... (2010)
Silva, Charlotte, Ph.D., Spec Educ ... (2004)
Skoro, Charles, Ph.D., Econ ... (1982)
Small, Milton, M.A., Hist ... (1990)
Smith, Gwendolyn M., Ed.D., Disput Resoltn ... (2004)
Spear, Terry M., Ph.D., Hlth Sci ... (2005)
Spencer, Jamison Ross, D.M.D., Biol Sci* ... (2006)
Squires, Edward, M.S., Geos ... (1995)
Staten, Kimberly, Ed.D., Educ Tech ... (2010)
Steenhof, Karen, M.S., Biol Sci ... (1987)
Streetstra, Holly K., M.F.A., Art ... (2008)
Stevens, Dennis L., Ph.D., M.D., Biol Sci ... (1998)
Sweany, Noelle, Ph.D., Instrl & Perf Tech ... (2010)

T

Tank, David C., Ph.D., Biol Sci ... (2008)
Tay, Peter C., Ph.D., Elec & Comp Engr ... (2009)
Tengelsen, Leslie Ann, Ph.D., D.V.M., Hlth Sci ... (2002)
Thomas, Mary Norris, Ph.D., Instrl & Perf Tech ... (2004)
Thompson, John, Ph.D., Educ Tech ... (2010)
Toney, Patricia N. MA., Educ ... (1996)
Toweill, Dale, Ph.D., Biol Sci ... (2004)
Tutty, Jeremy, Ph.D., Educ Tech ... (2006)
Tydeman, William, Ph.D., Hist ... (1994)

V

Van Maren, Nancy, M.A., M.S.W., Hlth Sci ... (1998)
Virta, Alan, M.L.S., Hist ... (1989)
Viskupic, Karen, Ph.D., Geos* ... (2004)

W

Wagner, Catherine, Ph.D., Engl ... (2005)
Walker, David, Ph.D. Hist* ... (2007)
Ware, Judy, Ph.D., Disput Resoltn ... (2004)
Watson, Richard T., Ph.D., Biol Sci ... (1990)
Weinberg, Pamela, Ph.D., Hlth Sci ... (1998)
West, Elizabeth A., Ph.D., Spec Educ ... (2007)
West, Stephen, M.H.S., Hlth Sci ... (2001)
Whelan, William, J.D., Pub Pol & Admin ... (2006)
Whitacre, David, Ph.D., Biol Sci ... (1990)
White, Courtney Reynolds, M.B.A., Bus & Econ ... (2003)
Williard, Elizabeth, Ed.S., Coun Educ ... (2010)
Wilson, Kevin, M.A., Engl ... (1995)
Wilson, Stephen K., M.P.A., Pub Pol & Admin ... (2003)
Wolf, Rebecca, M.F.A., Engl ... (2005)
Worthington, Janet Evans, Ph.D., Educ Tech ... (2004)

Y

Yensen, A. Eric, Ph.D., Biol Sci* ... (2002)
Youngerman, Stephanie, E.D., Educ ... (2002)
Yopp, Martha, Ed.D., Educ ... (2001)
Youtz, D. Jeffrey, B. A., Pub Pol & Admin ... (1999)

Z

Zollweg, James E., M.S., Geos ... (1995)

Affiliate Graduate Faculty

Participants in multi-university programs.

Ault, Sarah, M.A., Educ Tech ... (2009)
Bodrero, Rebecca, M.B.A., Instrl & Perf Tech ... (2010)
Bolin, Celeste M., Ph.D., Elec & Comp Engr ... (2009)
Charit, Indrajit, Ph.D., Mat Sci & Engr ... (2009)
Christenson, Brian L., Ph.D., Soc Wrk ... (2007)
Clouser, William, Ph.D., Soc Wrk ... (2007)
Daley, Jon P., M.B.A., College of Bus & Econ ... (2011)
Davis, Noreen, M.P.H., Nurs ... (2009)
Downey, Eleanor Pepi, Ph.D., Soc Wrk ... (2007)
Dunand, David, Ph.D., Mat Sci & Engr ... (2010)
Edwards, Arthur H., Ph.D., Elec & Comp Engr ... (2009)
Fenske, Christina, M.P.A., Biol Sci ... (2009)
Fox, Dan, B.B.A., Account ... (2011)
Garner, Francis "Frank" A., D.Sc., Mat Sci & Engr ... (2009)
Goodwin, Peter, Ph.D., Engr ... (2000)
Harper, Joel T., Ph.D., Geos ... (2007)
Hoglund, Sarah, M.Phil., Hist ... (2010)
Hunt, J. Brad, M.A. Educ ... (2008)
Jeffery, Ann, MSc, Educ Tech ... (2009)
Kaiser, Linda M.Ed., Educ Tech ... (2011)
Kaltenecker, Greg, M.S., Biol Sci ... (2007)
Koch, Edwards D., M.S., Biol Sci ... (2007)
Laverty, Mark, M.S., Elec & Comp Engr ... (2009)
Metzger, Dean G., B.S., College of Bus & Econ ... (2011)
Millett, Paul, Ph.D., Mat Sci & Engr ... (2010)
Newman, Nicholas, M.A., Art ... (2008)
Perkins, Dana L., Ph.D., Geos ... (2009)
Pond, Deanna, M.M., Music ... (2011)
Porter, Carol L., M.Sc., Instrl & Perf Tech ... (2007)
Randall, Ann, M.S., Educ Tech ... (2009)
Rearick, Whitney, M.A., Pub Pol & Admin ... (2011)
Reid, Kenneth, Ph.D., Anth ... (2010)
Rittenour, Tammy, Ph.D., Geos ... (2009)
Roark, R. Scott, M.B.A., College of Bus & Econ ... (2011)
Sahr, Brian, M.B.A., College of Bus & Econ ... (2011)
Schorzman, Terri, M.A., Hist ... (2010)
Shinneman, Douglas, Ph.D., Geos ... (2010)
Silver, Elisabeth M.A., Educ Tech ... (2009)
Simpson, Douglas J., Ph.D., C & I Found Studies ... (2008)
Suciu, Christy, M.B.A., College of Bus & Econ ... (2011)
Thompson, Pam, M.S.W., Soc Wrk ... (2007)
Utqikar, Vivek; Ph.D., Mat Sci & Engr ... (2010)
Walser, Chris, Ph.D., Biol Sci ... (2007)
Walters, Heath, M.S.W., Soc Wrk ... (2007)
Willson, Christopher, M.A., Anth ... (2010)
Windes, William E, Ph.D., Mat Sci & Engr ... (2008)
Wright, Richard N., Ph.D., Mat Sci & Engr ... (2009)

Index